

FARM AND DAIRY & RURAL HOME

DEVOTED TO
BETTER FARMING
AND CANADIAN
COUNTRY LIFE

Toronto, Ont., September 27, 1917



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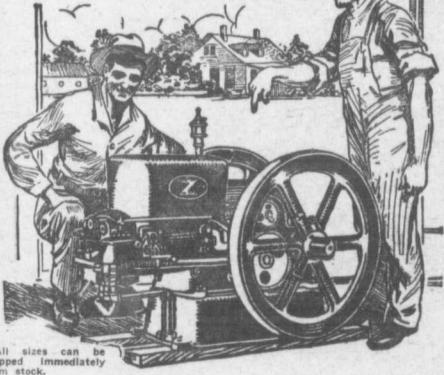
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CITY MILK SUPPLY

Will Fight Producers Price

THE Toronto Retail Milk Dealers' Association met last week to discuss the recently-advanced price of milk asked by the milk producers. The opinion of the meeting was that the retail milk interests are absolutely opposed to an increase in price on the ground that it is not supported by war or crop conditions. No definite action, however, was decided upon.

Mr. R. W. Dockery, who took a leading part in the meeting, stated that he was going into the country to purchase milk at the present price, and that he would refuse to pay the \$2.50 rate. If the farmers insisted on setting the milk price, he would turn his concern over to the Food Controller, and ask for immediate assistance from that officer. He intended to communicate with other members of the association, he said, and suggest that they do the same thing.

Last January the producers accompanied their demands for a reduction in price of milk for fodder over the year previous, claiming that the farm crop had been a failure, and finally that the price must be paid or the farmers would go out of the business. That case this year is in the same line.

Some retailers said that they had made no money this past summer, and were willing to continue at the present rate, but refused to pay the increased price.

A Later Report.

Indications as Farm and Dairy goes to press are that a compromise will be effected between producers and retailers. Mr. Dockery went into the country but got no milk at \$2.50. Mayor Churchill has discovered that the Producers' Association cannot be dictated as a combine, or restrain of trade and that even the Food Controller cannot force farmers to produce milk if they do not want to.

Would Restrict Food Prices

THE following resolutions were considered and unanimously endorsed by the Board of Controllers of the City of Toronto. They indicate the trend of city thought now adays:

"That Sir Robert Borden be requested to widen the scope of the bacon inquiry, or direct a new inquiry into bread, flour, fuel, ice, dairy, farm produce, and other necessities of life, with a view to preventing undue increase of prices, and preventing trusts, combines and restraints of trade."

"That the Food and Fuel Control be requested to fix prices for retail sales of commodities, and for an order requiring that no advance or increase shall be allowed in prices of fuel or food without first obtaining official sanction from the Fuel or Food Controllers, as the case may be."

Potato Prices to be Set

A CHECK is to be put on the speculator in potatoes. The Food Controller announces steps to prevent inflation of prices.

From information obtained through the Fruit and Vegetables Committee, the Food Controller considers that in the case of the potato crop, which is in excess in Ontario and Quebec, the price of Ontario and Quebec potatoes to the consumer should be about \$1.25 per bag of 90 lbs. There appears to be an ample supply now assured to

meet a largely increased consumption, which will doubtless follow a drop in price.

The passing of an order to compel the sale of potatoes by weight only is under consideration. It is also proposed that no potato shall be graded which weighs less than three ounces, and is not free from scab and rot. A price of less than one and one-half cents per pound to the consumer, it is considered, should insure to the grower a reasonable return for his potatoes, and give to the wholesale and retail dealers a fair margin for handling.

Saskatchewan Rural Credits

THE Saskatchewan Government has announced the flotation of a loan to be offered the people of Saskatchewan. It is known as the Saskatchewan Government Loan. The object of this loan is to raise money within the Province to provide the necessary funds for the carrying out of the scheme of rural credits under the Farm Loans Act, the purpose being to supply money at cost to farmers requiring it for the development of their farms and the bringing about of increased agriculture and live stock production in Saskatchewan.

The Farm Loans Act came into operation a few months ago, but already applications for loans from farmers for productive purposes have reached a total of more than \$2,500,000.

Two-year Saskatchewan Greater Irrigation Loan bonds will be issued in denominations of \$20, \$100, \$500 and \$1,000, bearing interest at five per cent. per annum, payable half yearly. This is the first loan of its kind ever floated in Canada.

Judging Competition at Toronto

AN interesting feature of the Canadian National Exhibition this year is the competition in competitions open to junior farmers. Following are the names of the leading five competitors in each of the judging classes, with the counties from which they come, and their score:—

Grain and Roots: oats, wheat and potatoes: R. H. Crosby, York County, score, 371; G. E. D. Long, Wellington County, 271; W. W. Lord, Durham, 251; G. H. B. Boynton, Simcoe, 243; Wilber T. Reed, Simcoe, 241.

Swine.—Buckingham, Essex, 166; Russell

Templar, Brant, 152; Chas. B. Boynton, York, 146; Geo. C. Jackson, York, 144; O. M. Ryker, Waterloo, 134.

Sheep.—Leicester and Shropshire:—Wm. Chrystal, Welland, 175; Harry Jones, Oxford, 170; Wm. Thompson, Peterborough, 165; Leslie Clarkson, York, 163; Wallace Harland, Norfolk, 161.

Beef Cattle.—Angus and Shorthorns:—Thos. C. Amos, Halton, 181; Frank Johnston, Ontario, 167; Lyell Lindsay, Halidimond, 162; F. M. Snyder, Waterloo, 161; W. Elgin Senn, Halidimond, 149.

Poultry:—G. R. Wilson, Wellington, 242; Ernest Beamer, Welland, 227; R. H. Crosby, York, 226; Arthur Crowhurst, Durham, 216; W. W. Lord, Durham, 211.

Horned Horses.—S. S. Staples, Durham, 167; Floyd Becker, Waterloo, 163; Geo. H. Whitmore, York, 160; Harry M. Hill, York, 159; L. Chapman, Durham, 156.

Dairy Cattle.—Ayrshires and Holsteins:—Thos. R. Maxwell, Peel, 165; Harry J. Seymour, Durham, 145; Miller McDonough, Wentworth, 141; Wm. Harris, Peterborough, 140; Elmer L. Walker, Simcoe, 136.

Fruit and Vegetables.—Ernest Beaumont, Welland, 64; Harry Daboll, Welland, 590; Irwin McMahon, Simcoe, 579; Bruce Willis, Norfolk, 571; Harry Young, Bruce, 511.

Fertilizers for Use in Spring 1918

Farmers who used Sydney Basic Slag will remember that on account of the impossibility of securing transportation they did not use it during the winter last spring. Conditions are not likely to be better in the early months of 1918, in fact they will probably be worse. The Railway authorities and those responsible for increased production are urging us therefore to fill the requirements of our buyers before the end of December. We ask Ontario farmers who are using our goods to help out by placing their orders with our agents right away and taking delivery ex car on arrival even at some inconvenience to themselves.

LET US ALL DO OUR BEST IN HELPING TO WIN THE WAR.

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We Welcome

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VOL. XX

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FARM AND DAIRY

& RURAL HOME



We Welcome Practical Progressive Ideas.

Trade increases the wealth and glory of a country; but its real strength and stamina are to be looked for among the cultivators of the land.—Lord Chatham

VOL. XXXVI

TORONTO, ONT., SEPTEMBER 27, 1917.

No. 39

The Truth About Sweet Clover as a Farm Crop

With Five Years Experience and 100 Acres in the Crop, Mr. G. A. Brodie is an Advocate of Sweet Clover

At the recent Canadian National Exhibition a group of farmers who had gathered in one of the dairy cattle barns, got into a somewhat heated discussion as to the merits of sweet clover as a farm crop. The most of the disputants held strong opinions pro and con, but were decidedly short on experience. "Well, I am going to follow Dr. Malto up at Ottawa," said one decidedly. "He says that sweet clover is a dangerous weed, and I guess he knows. I am not going to foot with the crop."

"Have you ever grown it?" asked group's chief advocate of sweet clover.

"No," admitted Speaker No. 1.

"Well, I have grown a little and I know that so far it is good."

Then the Halton county man spoke up. "Their experience up at Guelph isn't very satisfactory," said he. "Mr. Whiteside, the foreman of Prof. Zavitz's experimental plots, you know, tells me that he is in somewhat of a quandary to form an opinion on sweet clover. The crop grows all right with him, but according to Mr. Whiteside's story it is almost impossible to cut it without killing the plants. At Guelph this spring they cut different crops of sweet clover at different dates and at different heights, and all of it is so dead now that any plant can be lifted out by the roots with two fingers."

"Perhaps they didn't have the right variety of clover," suggested the sweet clover advocate.

"I asked Mr. Whiteside about that," replied the Halton county man, "and he assured me that they had several varieties, both white and yellow, and that all had been killed in cutting." Then he closed with a very practical suggestion intended principally for the writer as the only representative of the farm press on hand. "Why can't our farm papers give us some real leading on this question?" he said. "Surely there are farmers in the province with experience enough to give a definite answer to the question, 'Is sweet clover a desirable farm crop?'"

.Information is Lacking.

I mention this discussion on the fair grounds at Toronto because it is so representative of many discussions regarding sweet clover that I have heard in all parts of the province. Everywhere farmers are interested in the new crop, and everywhere there is the same lack of information as to its real value. Some farmers have grown sweet clover and condemned it. Others, after one or two years' experience, speak of the crop in terms of highest praise. Our agricultural colleges and experimental farms, however, to which we have been accustomed to look for leading when such problems arise, have sounded a very uncertain note. At first the tendency was to utterly condemn the crop. Later, when the public demand for further information made fuller investigations necessary, our public investigators became less

By F. E. ELLIS.

decided in their condemnation of sweet clover. They admitted that cattle would eat it, even though they seemed to like it, although formerly they had pronounced it as distasteful to all kinds of farm stock. Even yet, however, our agricultural authorities have not spoken with any clear voice on the matter. A week or so ago, therefore, when I had an opportunity of visiting one of the most extensive growers of sweet clover in Ontario, along with J. W. Sanger, a York county farmer, and a couple of other agricultural journalists like myself, I was quick to signify my intention of going along. We spent the day with Mr. G. A. Brodie on his farm at Newmarket, 28 miles north of Toronto, and from Mr. Brodie we learned much of the value of sweet clover. But before we tell of Mr. Brodie's experiences with sweet clover it will be well to introduce Mr. Brodie himself—if he needs an introduction.

Mr. Brodie is a gold medallist graduate of the Ontario Agricultural College. He left that institution about the year 1890, and the fact that he carried away the gold medal is all the proof that is needed that he was the best man in his year. Unlike the majority of agricultural graduates who leave the college with honors, however, Mr. Brodie did not accept an official position, but went back to the farm. Since then he has made a name for himself as an importer and breeder of Clydesdale horses, Shorthorn cattle and Shetland ponies. Perhaps he did his best work as a grower of select varieties of seed grains and of Grimm's

and Ontario Variegated alfalfa. When the good farms competitions were instituted in the province, Mr. Brodie entered his farm, and on it secured a gold medal. He is not a plunger, but a safe, conservative farmer who experiments carefully before going extensively into any crop. Five years ago he began to experiment with sweet clover. Each year he has enlarged his acreage until now he has 100 acres of sweet clover scattered over his three farms. His testimony, therefore, is of value to all who are considering sweet clover as a farm crop.

Sweet Clover as a Pasture Crop.

We found Mr. Brodie mounted on the corn binder, cutting a crop that should yield 18 to 20 tons of green corn to the acre. It was one of the best crops of corn we have seen this year. "Why are you such a strong advocate of yellow sweet clover?" we asked Mr. Brodie when the corn binder had been turned over to the hired man.

"Come, and I will show you," said the gold medal farmer, as he led the way down the lane to where a herd of 25 or more dairy Shorthorns were pasturing. "In that pasture field," said he, "there are 22 acres, all of it in sweet clover; seeded a year ago last spring. We have had 35 head of cattle, practically all mature, pasturing it through the whole season. You will notice that they have the run of some good natural pasture as well. Pasturing on the sweet clover, they will produce more milk than on any other kind of pasture with which we have had experience. Here is an instance: One bunch of cows was producing four cans of milk on sweet clover pasture. We turned them from the sweet clover on to the very best of natural grass pasture, which is supposed everywhere to be the very best pasture for milk production. Instead of increasing their flow, however, this bunch of cows had in three days decreased from four to three cans of milk and stayed at the 'three cans.' We turned them back on to the sweet clover, and in another three days we were again getting our four cans of milk."

"Yes, this pasture does look—rather bare and barren now," replied Mr. Brodie in answer to a question, "but right up to the present the cows have had all they could eat from it. Even yet there is quite a bit of picking on it. From this date forward, however, I believe, sweet clover pasture will have to be supplemented."

Nearer the buildings, Mr. Brodie had a small field of nine acres, also in sweet clover seeded a year ago last spring. He has had 12 head of young cattle running on this nine acres all summer, except for one week in June, when they were taken off to enable Mr. Brodie to cut a very good crop of hay from the field. The cattle, when we saw them, were in prime condition. Still further justification for their owner's belief that sweet clover is the best of all pasture crops. "It has

The Truth About Sweet Clover

Is sweet clover deserving of an important place among the farm crops of Canada? Here is a question on which authorities differ. Practical farmers are as far from reaching any unanimous conclusion as any other agricultural advisers. Some regard the crop as a weed. Others are outspoken in their belief that it is of the most valuable of the clovers. How are these conflicting statements to be reconciled?

Only by the acid test of experience can the value of sweet clover be determined. In this issue of Farm and Dairy the experience of Mr. G. A. Brodie is reviewed. Hundreds others of our Folks have had more or less experience with the crop. Why not write Farm and Dairy your impressions as to the value of the sweet clover? We would like to know and your experience may be valuable to thousands of our readers who are open for more information on the subject. We would all like to know the truth about sweet clover.

September 27, 1917.

the further advantage," remarked Mr. Brodie, "in that nothing will blow on it."

As Hay for Winter Feeding.

"You have fed sweet clover hay in the stable in winter?" someone queried.

"Yes, we have had sweet clover hay to feed for some years now. With our cows we have found that if we take them off sweet clover and substitute even alfalfa hay, that they will go on in their milk. The horses and young stock both like it up greedily. We have grown alfalfa for some 35 years, and from our experience with both crops for hay, we consider the sweet clover fully the equal of the alfalfa."

This year Mr. Brodie cut 45 acres for seed, which he expects will yield about 10 bushels to the acre. A great deal of the crop also was cut for hay. We stopped at the barn to have a look at it. Like most other growers this season, wet weather interfered with harvest at the proper time, and a considerable part of the clover was in blossom, and in some of it the seed had started to form before Mr. Brodie got after it with the mower. "This hay," said he, "was cut fully a month too late. It seems coarse, but the cattle will eat every bit of it and thrive on it. If alfalfa were left so long, it would be so woody that much of it would be wasted."

We stopped to look at a 25-acre field that had been seeded to sweet clover with oats this spring. The stand was excellent, and would have looked even better had Mr. Brodie not pastured it in moderation since the grain crop was removed. "I have had it a foot high at this time," said he, "when the cattle were kept off. In this particular field the sweet clover was above the bands in the sheaves, and we had difficulty in getting them dry enough for threshing. At present I am feeding the sheaves to the horses, and they tick it all up clean. We seeded at the rate of 20 lbs. of seed to the acre."

"What is the average yield of alfalfa hay per acre?" I asked.

"We cut two to two and one-half tons to the acre this year," was the reply.

"Why does pasturing sweet clover not kill it as does mowing too close?" was the next question.

"We have found," said Mr. Brodie, "that the cattle do not eat the sweet clover off close to the ground as they do some crops. The tendency is more to browse off the tops."

"Likewise," supplemented Mr. Sangster, "the cattle don't eat off all the leaves as a mower does."

"When I first started to grow sweet clover," remarked Mr. Brodie later, "I knew nothing about the crop, and took no precautions in cutting it. My mower was without shoes and cut right down to the last inch. I had over a ton of clover the second cutting, and got five bushels of seed to the acre. Sweet clover, therefore, is not so easily killed in cutting as some would have us believe. I don't advocate cutting it in this way, however. My cutter bar now has shoes, so that I can leave several inches of stubble. There is also a proper time to cut sweet clover, and that is early in June before the crop has blossomed at all."

As a Soil Improver.

Many who question the value of sweet clover as a general farm crop admit that it might fill a useful place in improving worn out soil. Mr. Brodie was most emphatic on this point. "I can take the poorest field on the farm," said he, "grow yellow sweet clover on it, and, after it, grow any crop on earth." Then he proceeded to follow up his assertions with a demonstration. We went to inspect another field of sweet clover on the farm. This field had been fall plowed from an old sod and the soil in the field had previously been "scraped to death." This ~~spider~~ ~~had~~ had to

work and seeded to sweet clover along with oats. The stand of sweet clover was perfect. "We will have a bumper crop of sweet clover here next year," said Mr. Brodie, "and after that we can grow anything."

We pulled out the small sweet clover plants and found the roots covered with small nitrogen gath-

ering nodules. The roots themselves were about 10 inches long and this from spring seeded clover. "Did you ever see so many nodules on an alfalfa root when pulled up in this manner?" asked Mr. Brodie. We admitted that we had not, and it was easy to understand after pulling many plants and

(Continued on page 8.)

Efficiency a Solution of the Farm Labor Problem

How to Make Expensive Labor Pay for Itself

THE farm labor problem this year was a severe test of the managing ability of Canadian farmers. With inexperienced labor demanding \$2.50 to \$4 a day, the farmer must indeed be a manager who can handle this labor in such a manner that the work done will pay the wages. If a farm is efficiently managed the shock of the high wages will be passed on to the increased receipts from good crops marketed at good prices. But a labor scarcity hits the inefficient manager

to cut down the cost of the driver's wages in proportion to the amount hauled. If two horses find it too hard to haul this extra large load, the farmer will probably find it to his advantage to use three horses in here as he has already found it in using three horses or more on the disk.

Not only should the farm in general be made handier, but the buildings themselves should receive careful consideration in this regard. The time spent in doing the chores morning, noon and night takes up a considerable proportion of the day. Every hour saved in this part of the day's operations means so much more to be applied on the outside farm work. And it is this extra time which will earn the extra high wages paid to the hired man.

The windmill, or gasoline engine should take the place of the hired man wherever possible. It is usually not profitable to pay a man wages to pump water or turn the handle of the cream separator when other power may be used for these purposes. Farmers will find it to their advantage to make greater use of the telephone and of the parcels post, if he is on rural mail route, in obtaining small repairs and other needful things and saving trips to town.

The farmer must use his own judgment in the distribution of the labor at his disposal. When he considers that his hired man is receiving a pretty big price for a day's work, he will see that it will not pay to set him at such work as picking potatoes, or picking fruit when school children could very well do this sort of work. The hired man should instead be placed after as many horses as the farmer can afford to give him. One of the chief ways of saving labor is in doing work at the proper time. This applies with great force to weeding. It will take but a small proportion of the effort if weeds are killed in sprouting.

One of the most successful farmers, in his employment of labor, makes it a practice to carry with him all the time a memo. book. In this book he jots down from time to time the different articles that may be required from town in repairing machinery, or for other things. Then when he makes a trip to town, it is a real shopping trip. In this book he also jots down a list of jobs to be done on stormy days. In this manner he always has plenty of employment for his labor on rainy days, and on the bright days, when these jobs would have to be done on some farms, his labor is ready to go right on with the general farm work. Following is a list taken from his memorandum book of jobs for stormy days: Clean barn; sweep down cobwebs in cow barn (four times a year); set horses' shoes; get machinery ready to use (about one month before each operation starts so as to have time to make any repairs necessary); replace broken lights in buildings (in fall); clean grain (long before needed); oil wagons and carriages; repair machinery; sharpen all tools; clean cellar (twice a year); mix feed; mix fertilizers; oil harness; sharpen mowing sickles; clean henhouse.



A Bovine Beauty of the London Show Ring.
Mountain Lass won in the milk class at London for A. B. Turner & Sons. Later she was made reserve champion. As the illustration shows, she is almost a perfect specimen of an Ayrshire and a dairy cow.
—Photo by an editor of Farm and Dairy.

a knockout blow, and labor conditions, with the advent of conscription as a law of the land, do not look any brighter for next year.

Efficiency on the farm means a continual looking ahead; it means planning to have every operation carried out at the right time; it means using gasoline and horse flesh to replace expensive man power; it means large machinery, handy buildings and a conveniently laid out farm; it means that every hour of work paid for at high wages is spent where it will do the most good, and that the leisure hours of the hired man fall on Sundays rather than on rainy days.

In planning to meet the difficulties brought on by the labor scarcity, the farm itself should first receive the consideration of the farmer. The fields should be large enough that extensive machinery may be used, and that time may be saved in turning at the end of the fields. More horses should replace the man power which now costs so much. The general purpose team which is so frequently found on the farm is a labor waster. To do the work cheaply, heavier horses should be used; the two-furrow plow should replace the one furrow; the 16-foot drag harrow should be common, and the disk should be sunk deeper.

One of the machines that too often does not receive its full share of the farmer's consideration is the wagon used for hauling farm produce to market. In many cases the wagon box could afford to be several feet longer than it is, and perhaps a little wider. Larger loads should be handled

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Plus Inka Art

Best Feeds for Alberta Dairy Cows

Suggestions for the Dairymen of the Foothills

S. G. CARLYLE, Supt. Demonstration Farms, Edmonton, Alberta.

TO get the best results, dairy cows should not only be fed protein and carbohydrates in the right proportion, but these feeds should be palatable, digestible and bulky, and as succulent as it is possible to get them. The cow also relishes and does better on a variety of feeds. The problem confronting the dairymen in this province is to supply the variety and succulence through the long winter months.

The feeds that are generally used by the dairymen in this province, after the cows are stabled, are for roughage—green feed or oats cut before they have matured, prairie hay, and in some parts timothy hay. For concentrates—ground oats, barley, frozen wheat, bran, and flax or oil cake; and some are so abundant enough to grow a few roots to supply succulence.

Roughage.

Our roughage feeds are high in carbohydrates, and low in protein—green feed having about nine pounds protein out of every 100 pounds, prairie hay six pounds, and timothy hay five and a half pounds; but of this amount only about half of this protein is digestible. If alfalfa can be grown, as I believe it can, over the greater part of Alberta, it will do much to balance the rough feeds. Alfalfa contains about 14 pounds protein out of every 100 pounds, and of which 10 pounds is digestible.

But if we are to get the best results some concentrates must be fed, because a cow cannot consume enough of the rough feeds to produce a large amount of milk, and she will not get the variety to stimulate her appetite. The concentrates grown in this country are fortunately high in digestible protein besides being very palatable.

Oats a Splendid Feed.

Oats is one of the most largely grown crops in the west, and is one of the best feeds for any kind of stock, and is especially good for the dairy cow. It is bulky and palatable, and though containing a larger per centage of indigestible material than the other grains, owing to the heavy hull, it also contains a larger percentage of digestible protein and fat, and has a nutritive ratio of 1 to 6, which, according to chemical analysis, is almost a balanced ration. Oats are especially beneficial in fitting cows after they are dry for next year's work; and this is where many dairymen fail in not getting cows in good condition before freshening. As soon as a cow dries she should be fed liberally on feeds high in protein and fat, such as oats, bran, and oil meal, to store up future energy

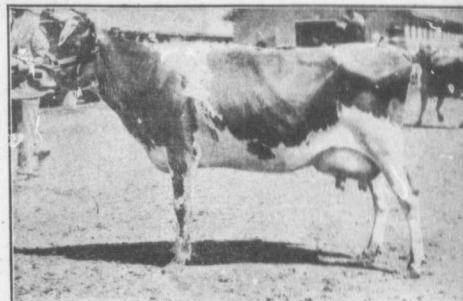
for herself, and also to develop the unborn calf.

Another feed largely grown in this western country, and which should command more attention by the dairymen is barley. Barley, according to analysis, is very similar to corn, and for this reason forms a large part of the fattening hog's ration in this country. However, it can be fed very profitably to dairy cows, but should only be fed in limited quantities, because, like corn and other heavy, compact feeds lacking bulk, it is harder to regurgitate for remastication, consequently it is not well mixed with the saliva. The ptyalin contained in the saliva acts upon the starch changing it into sugar and leaving it in condition so that the other digestive juices can further work upon it. Barley adds variety and is very valuable ground and mixed with more bulky feeds, as ground oats and bran. It is highly digestible, containing 56 per cent. digestible nutrients against 66 per cent. in oats. It is lower in protein and fat, but higher in carbohydrates.

Wheat for Dairy Cows.

Wheat is valuable for feed for dairy cows, but on account of the high value placed upon it for human food, is not much used. Shrunkens and frozen wheat is plentiful some seasons and can therefore be profitably utilized. Wheat is equal pound for pound to barley, and should occupy the same place in the ration. But the great value of wheat for feeding purposes is in its by-products, of which bran is the most important to the dairymen. Bran is not so highly digestible as some of the other feeds, but is extremely valuable for its physical nature, being bulky, palatable, and has a cooling effect on the digestive system. It also has a laxative effect, owing to a large amount of phosphorus or mineral matter present. It contains only 56 per cent. digestible nutrients and would be an expensive feed were it not for the reasons already mentioned. However, it is high in digestible protein, containing 12 per cent.

Another feed worthy of mention is flax, but on account of containing a large percentage of oil is rather expensive. Like wheat its chief value as a dairy feed is in its by-products, the chief of which is oil meal. This feed also has a high physical value, especially when animals are fed on dry feeds, in keeping the digestive apparatus in healthy working condition. It is highly digestible and contains a larger amount of protein and fat than any of the feeds spoken of. It contains about 30 per cent. protein and six per cent. fat, and for this



A Milky Little Jersey, First in Her Class at Toronto.

Raleigh's Brightness was first at Toronto in the class for two-year-old heifers in milk. Her leading characteristic is her very milky appearance. At London she went down to second place, a heifer of more substance being given the preference. She was exhibited by Jno. Pringle of Landon.

—Photo by an editor of Farm and Dairy.

reasons should only be fed in small quantities in conjunction with bulky feeds.

Rye is another feed grown extensively in the West, and has a high value for fattening hogs. It is carbonaceous in character and is palatable, but its chief objection in the dairy ration is the disagreeable flavor it imparts to milk and the bitter taste it develops in butter, if fed in any considerable quantity. The danger from it is the likelihood of ergot being present, which causes abortion. The best way to use it for dairy cows is to sow it for pasture in the month of July, when it will be ready to turn the stock on the middle of August or first of September, thus supplying green, succulent feed when the other grasses are dried up. It also comes on early in the spring, and can be pastured up to June, the cattle taken off when the rye starts heading out to escape the effect of ergot which may be present. The rye can then be left either for grain or to be plowed down.

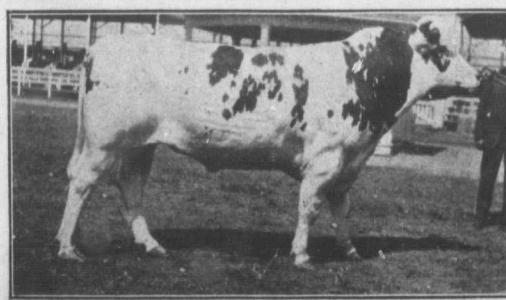
Succulent Feeds.

The greatest drawback to winter dairying in the west up to the present is the absence of succulent feed. Roots can be grown in large quantities in every part of the province, but the chief objection is the cost of labor in handling them. Corn has proved a success in some parts of the province, and already silos have been built, thus solving the problem in these sections, and more will be grown every year.

Winter Feeds.

The most common feed for Alberta for stock during the winter months is green feed or oats eat before being matured. This makes excellent fodder, but it may be greatly improved by sowing with the oats a bushel of peas per acre. The peas and oats together make a better balanced ration, the peas being rich in protein. This makes excellent feed when the oats are cut in the dough stage, shocked, stacked and fed throughout the winter, and a still better feed when put in a silo as soon as cut and fed as ensilage. This has been tried on two of our demonstration farms, and the ensilage found very satisfactory.

In regard to the order in which the different crops should be threshed, much will depend on circumstances, and each farmer can readily see what arrangements would best suit him. The main point to consider is that oats and barley are practically impossible to separate in a farming mill. Therefore, if one of these crops were threshed immediately after the other, the second would be sure to be more or less contaminated by the first. Peas and flax being particularly easy to separate from the common cereals are very desirable crops to thresh between two different lots of ordinary grain.



The Winning Two-year-old Holstein Bull at Toronto.

Plus Inka Artis is one of the big, deep bodied bulls that are always popular in the show ring. He was exhibited by S. Lemon, Son of Lynden.

—Photo by an editor of Farm and Dairy.

September 27, 1917.

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CANADIAN NORTHERN RAILWAY



A Three-Wheel Tractor in Operation at the Demonstration.

The Tractor Demonstration at North Toronto

Almost Fifty Tractors in Operation with Twenty-Three Companies Represented.
The Most of Them do Good Work. Attendance Comparatively Small. By F. E. Ellis

THE civic jail farm, north of Toronto last day to Friday of last week, was the scene, from Tuesday to Friday of last week, of the greatest tractor demonstration yet held in Canada. Altogether 50 tractors were seen in operation representing 23 different manufacturers. A couple were made in Canada, the rest came from the United States. The weather was favorable, but the attendance was not such as the importance of the event merited. On Wednesday there were over 1,000 visitors on the grounds, but on other days attendance was small. The crowd was, however, representative of a large section of the country. Almost all of the good agricultural counties of Ontario were represented, and visitors were noticed from a couple of other provinces as well. Most of the visitors, however, came in automobiles. "Just the class of people we want," remarked one salesman. "The men who can afford a car can better afford a tractor."

And it was an interested crowd. "I am not sure," said a well known York County farmer, "that the tractor will plow more cheaply than a man and team, but I would like to have a plow faster and help me to get my work done at the right time." Others expressed similar sentiments and all united in denouncing a tariff duty that made every machine on exhibition cost several hundred dollars more in Canada than the same machine sells for in the United States. Representatives of several big tractor firms stated that the tariff alone stood in the way of a big development of the business in Canada.

Small Tractors Popular.

The tendency toward the small tractor was noticeable. Three years ago, at the first demonstration of the kind in Ontario, the largest machine was pulling a twelve bottom plow; and 14½ inch bottoms at that. The large

est tractor operating at Toronto last week pulled only four plows and they were 12-inch bottoms, the majority had a capacity of only two or three plows. "I am not sure that we are getting to the other extreme," said Prof. W. H. Dan, "I myself believe that we will ultimately come to favor a medium sized tractor, say one that pulls a four gang plow." The greatest interest was shown, however, in the 8-16 or 10-20 tractors. A tractor of this size will pull two plows under all conditions, three plows under favorable conditions and do all of the belt work ever needed on a farm. Emphasis will be placed on the belt power no tractor will ever be in great demand that cannot be used as an all round farm power. There is a growing belief, too, that the 12-inch bottoms are too wide for soil conditions in Eastern Canada, and many 10-inch bottoms were seen for the first time at this year's demonstration.

Standardization Needed.

A feature that proved confusing to all prospective tractor purchasers was the great variety of types. Tractors have yet to be standardized. It reminded us of the early days of the automobile when every different make of car had a style of its own. Now that tractors are standardized and all cars have their outstanding characteristics in common. Not so to the farm tractor. There were tractors with two wheels, three wheels, four wheels, caterpillars with no wheels and one a combination of caterpillar and wheel tread. There were engines in these tractors with upright and horizontal cylinders and anywhere from one to eight cylinders in the power plant. Some had a chain drive, others a direct connection with the rear of the wheels. Two or three had friction clutch; the rest were positive. The oiling and cooling systems pre-

(Continued on page 18.)



A Two-Wheel Model that was Popular With Spectators.



"Will they let Famine Fight Against Us"

To us who stay at home, good meals, eaten in comfort, are a commonplace.

But to our Sons, Husbands and Fathers "out there" food is the only thing that matters. The possible lack of food forever haunts them. For without food, how can they "carry on."

From whence shall come their bodily strength.

Realizing these things---how dare we fail to send them the foods they so sorely need?

How can we refuse to eat a little less

white bread, beef and bacon so that there will be enough of these non-perishable foods **for them**.

Shall we let famine, also, fight against them? Or with these facts before them will the great legion of Canadian Women live up to their Food Service Pledges.

The answer lies with each one of you.

The Judgment of Mankind will write an outcast verdict upon those who do not sign and live up to the Food Service Pledge.

Sign the Food Service Pledge before it is Too Late

Woman's Auxiliary, Organization of Resources Committee, in Cooperation with The Hon. W. J. Hanna, Food Controller.

September 27, 1917.

The Truth About Sweet Clover

(Continued from page 3.)

finding them all covered with nodules, just why the crop adds so much to the fertility of the field in which it is grown.

"Can You Get Rid of It?"

There was still one point to be settled, "What about this wild meadow?" we asked Mr. Brodie. "Once it gets into the soil can you get rid of it?"

Again the answer was based on experience. "That corn field over there was plowed with a sweet clover sod. You will find very little sweet clover in it. I, however, am not going to make a strenuous endeavor to kill out the sweet clover. It would take too much time. The crop would be a grand thing. It would add to the feeding value of the crops, and also, with that great nodule covered root, it would feed the soil and the crop. You know that many seed red clover,

along with all their grain crops in order to feed the soil. If sweet clover could be gotten into the soil, so that it would come up with all crops, it would take the place of the red clover seeding."

Mr. Brodie mentioned further, the fact that sweet clover is not an annual or biennial, in that being a crop, it works in with a short rotation of crops. "Sometimes," I suggested, "that would be a disadvantage, as sometimes you might not want to re-seed every year."

"I believe," replied Mr. Brodie, "that where sweet clover is pastured, it grows in with a crop, and too, has grown in much 100 feet too close to the crop. He is just a strong advocate of sweet clover as a farm crop as is his neighbor, Mr. Brodie, but time did not permit of visiting his farm. Mr. Brodie's testimony alone, and the story of his experience with sweet clover, was sufficient to convince all of us that the crop is due to take a prominent place

selected strain of yellow clover, known as abrotia. It has a finer stock, and is just as leafy as the white clover commonly advocated, and has an advantage over the latter in that it is easier to cure. It is well to mention here, however, that many strains of yellow clover are not as good as the abrotia strain, and where one is not certain of the strain of yellow sweet clover that can be gotten, it would be better to stay with the white clover sold by the seedsmen. One of Mr. Brodie's neighbors, Mr. A. G. Gormley, is the originator of this abrotia strain, and he, too, has grown it much 100 feet too close to the crop. He is just as strong an advocate of sweet clover as a farm crop as is his neighbor, Mr. Brodie, but time did not permit of visiting his farm. Mr. Brodie's testimony alone, and the story of his experience with sweet clover, was sufficient to convince all of us that the crop is due to take a prominent place

among the farm crops of the province of Ontario. Probably hundreds of Our Folks have already experimented with sweet clover, on a limited scale, at least; and we would be glad to hear from them and establish their experiences in Farm and Dairy. Let us have a sweet clover experience meeting.

**Buckwheat Screenings for Poultry**

A CAR of this feed was purchased by the Poultry Division, Central Experimental Farm, Ottawa, through the superintendent of the Government Terminal Elevators, Fort William. The car contained 20 tons, costing \$20 f.o.b. Fort William and \$35 per ton f.o.b. Ottawa—\$1.75 per cwt. Of this, 18 tons were whole and five tons ground fine.

On receipt, it was fed to all classes of poultry, old and young, the grain in hoppers, and the mash in hoppers or in moist mash. The birds after eating a corn and wheat diet did not take to the whole screenings for several feeds, but the mash was readily taken from the start. When the grain was fed in quantity, however, a test was picked out, and a little care had to be taken in order to have them eat everything up clean. Now after three weeks feeding, everything is eaten up, except a few oat hulls.

A test was made on 200 pullets from two to four months of age. In 20 days they ate 516 lbs. of grain and 294.5 lbs. of mash. The total gain was 162.6 lbs. That is, it took 4.7 lbs. of the feed to make one pound of gain at a cost of 3.2 cents.

Dr. Shutt, Dominion Chemist, has submitted an analysis of this product from which we quote the following information: "This product, it will be seen, consists approximately of 50% wheat, 40% wild buckwheat, 5% light oats, 1% flax seed, one-half of 1% we'd seed, 5.7% chaff, hulls, etc. The chemical analysis of the ground meal is: Water, 14.07; protein, 11.84; fat, 2.07; carbohydrates, 64.53; fibre, 5.36; ash, 2.13—100.00."

The above prices were for a car lot, and prices for smaller quantities would likely be considerably higher. It is suggested that a number of poultry or swine breeders in a locality club together to order a car. It is a good purchase at a figure near the above price.

Don't Crowd Growing Pullets

By A. P. Marshall.

GROWING pullets often receive a set back on account of close, crowded quarters. Unless careful watch is kept over them the poultry raiser may fail to realize that the birds have outgrown their quarters until harm has been done. Young chicks grow rapidly after they are put into the colony house or henhouse and soon become so large that they seriously crowd each other especially at feeding time. Before this condition is reached some of them should be removed to other quarters. If no other place can be made available it is better to dispose of some of the chicks and have a few sound healthy birds than many stunted ones.

Pullets should not be allowed to roost before they are about four months old, because if they do, crippled breastbones will likely result. But when perch space is provided they should have plenty of room. Figure on placing the perches about twelve inches apart and allowing from four to six inches of space for each bird.

September 27, 1917.

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the economy
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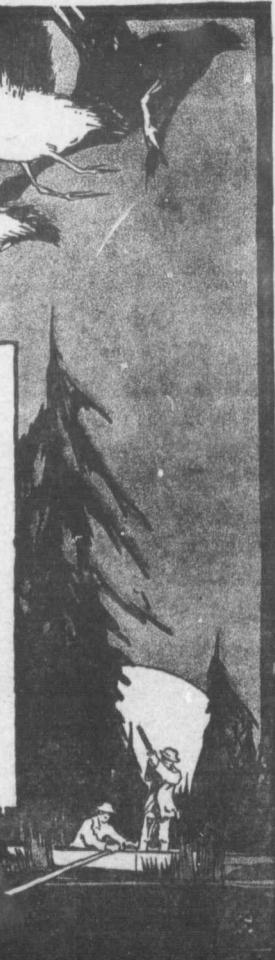
"—when the inclination is strong—the weather right—the birds in flight and all that—back up a good day's sport with good shotgun shells."

Dominion Shot Shells

are good shells—backed by the guarantee of the big "D" trademark and Made in Canada. For partridge, geese or ducks Canuck, Sovereign, Regal, Crown or Imperial are the real game-getting shells.

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DOUBLE TREADS have been before the public for three years, and have won the confidence and admiration of this field. Do not confuse them with other "double tread" tires, which are often of inferior quality. Write to us for **DOUBLE TREAD INFORMATION FOR DOUBLE TIRE** trademark. Compare them and accessories. Our business has been built on the good will and satisfaction shown by our customers.

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All sizes up to 38.....5%	4.75

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Clarendon Street,
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P-17

Full grown birds need even more room than this; for them the perches should be 18 inches apart.

Besides plenty of room another essential in the Poultry House is frequent change of air. Fresh air promotes growth and makes vigorous, well-developed birds. So essential is this factor that all the benefits of large runs and good feeding may be impaired when it is ignored. But good ventilation does not mean letting a draft blow across the chickens. This would cause disease as quickly as foul air. With a little care as to the design of a poultry house may be built that allows a constant change of air but does not allow the rate of circulation to become rapid enough to cause a draft.

One other point—cleanliness—must not be overlooked with regard to the pullets' housing quarters. Keeping the floors and droppings boards clean reduces the number of germs for mites and diseases. White paint, linoleum, or even creosote and boric acid, diluted with water, also may be recommended to combat poultry pests. In summertime this cleaning up in the poultry house should be done at least once a month if possible. After the floor has been cleaned, scattering dry litter over it, provides material to absorb moisture and insects. Poultry should never scratch in. While these measures are simple and inexpensive, nevertheless they are important because of their direct bearing on the egg-producing capacity of the pullets when they commence laying in the fall.

Orchard and Garden**Picking Apple for Winter**

In gathering apples intended for marketing from the trees, the first essential is proper appliances. Light, strong ladders, long enough to reach the top of a tree in full bearing, are indispensable. These ladders should be pointed instead of square at the top end. This enables the picker to put his ladder up through the branches without disturbing the fruit. A strong step-ladder is useful for picking from low-headed trees where the branches hang near the ground. Picking baskets should not be too large and should be either smooth on the inside or lined with canvas. A basket with a rigid rather than a swinging handle should be used for picking. Canvas bags should never be used for picking apples on account of danger of breaking the fruit.

Once the fruit has been gathered from the tree to barrel, and from the orchard to the fruit-house where it is to be graded and packed for the market. Where apples are packed, a suitable sorting table should be provided. This table may be any length desired, but should not be more than three feet six inches wide and not more than eight inches deep. The table should be long enough that a man may stand upright when he is working. Some padding such as excelsior should be placed in the bottom and this covered with canvas or coarse bagging, to prevent the fruit from getting bruised.

If the best results are to be secured, a plank 12 inches wide should be fastened to the floor. The barrels should be set on this while they are being filled and prepared for shipping. This is important. A barrel cannot be properly packed on a level floor. A proper barrel press is an essential article. I prefer a press which hooks on the end of the barrel to one which grips the bilge. The latter contracts the barrel and when the press is taken off it slacks to some extent.

The barrel should be set near a window where the light is good while the

face is being laid. A platform one foot from the floor is a help to the man doing the work. A proper platform, with pulleys, nail cutters, stems, oil, leather, barn heads and liners, saves time and cuts down the cost in the packing-room. The packing-room should be kept clean. Decayed fruit, together with all leaves and dirt, should be taken out twice every day. Keep the place sanitary.

The apple is a tender fruit and should be handled with care. It should be stored about in a careless way from barrel or box to the packing table, from the table to the baskets, or from baskets back into the barrels. Rough handling reduces the quality, lessens the profits and ruins the packer's reputation.

To face a barrel properly, uniform sized fruit must be used. Apples are turned and halved, nine-tenths will make the faces two circles and one in the centre. Three-inch apples will require two circles and three in the centre—twenty-seven apples. Two and three-quarter inch apples will require two circles, and four in the centre—thirty apples. Two and one-half inches will require three circles, and one in the centre—thirty-six apples. The top of a barrel should present an attractive appearance. Extra large apples should be put in the centre of the barrel.

As each basket is emptied, the barrel should be racked or shaken so that every apple will find its place. When the barrel is nearly full, it should be well and thoroughly racked and then tilted. By this means it is seen that the apples should be so placed that the bottom of the barrel will be near the faces. If this is done, each apple gets an equal amount of pressure and none are injured when the bottom is pressed in. If a barrel is properly racked down, the fruit should not be quite as high as the ends of the staves when it is headed. Overpressing is responsible for many slack barrels when the fruit is opened in the market.

All apple barrels should be nailed before the fruit is packed in them, and all nails protruding on the inside should be clinched. This avoids injury to the fruit by nail points. The bottom is nailed after the barrel is closed. Liners should be used on both ends of all packed barrels, less and smaller nails may be used as the barrel is more easily opened and is stronger.

A barrel containing apples for market should be stenciled nearly as follows: "Packed by" (then follows the name and address of the packer), the variety of fruit and the grade. The barrel is now ready for market.

Celery for Winter.

UKSH celery as is wanted for early use is blanched in the garden by drawing up the earth to the stalks in two or three successive stages, or by the use of boards. The stalks should be blanched right up to the foliage. Drain tile is useful for blanching small plots for the胎。

That part of the crop suitable for winter and spring use should have the soil worked in among the stalks sufficiently to hold them in an upright position. Upon the approach of hard weather, more soil should be earthed up to the top of the leaves, so as to almost cover them. Then as the weather becomes colder, straw, hay, marsh grass, corn stalks, or other litter should be added to exclude the frost. A layer of soil a foot deep may also be placed on the top of the litter.

Many people lift celery when cold weather sets in and set it close together, in an upright position, in trenches of sufficient depth so that the tops of the plants are even with the surface of the ground. Where frost penetrates deeply, this method has its advantages, but lifting celery in the

(Concluded on page 17.)

The Bluebird

The Bluebird has for ages been the symbol of happiness.

How to attain this ever-elusive state has been the study of men and women from the beginning of time.

Centuries of experience have shown that contentment is the one thing needful to secure happiness.

Contentment is possible only where food, clothing and shelter are assured from year to year.

In other words, poverty makes happiness or contentment impossible in a world such as the one in which we are living.

Life insurance is the great enemy of poverty and, therefore, conduces much to the happiness of our people.

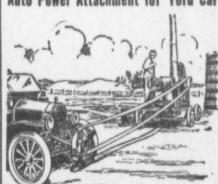
But far greater in importance than our own happiness, is the happiness of those dependent upon us.

The Life Policy captures the elusive Bluebird of Happiness, and keeps it a captive in the home.

Write for Booklet entitled "Ideal Policies."

Mutual Life Assurance Company of Canada Waterloo-Ontario

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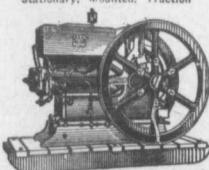
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We also manufacture a full line of Grain Grinders, Saw Frames, Pumping Plants, Boilers, Concrete Mixers, Windmills, etc.

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Farm and Dairy

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Rural Home

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Published Every Thursday by
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The paid subscriptions to Farm and Dairy approximate 20,000. The actual circulation of each issue, including the paper sent to subscribers, is approximately 20,000, but slightly in arrears. The number varies from 20,000 to 22,000 copies. No subscriptions are accepted at less than the full subscription rates.

Over 1,000 copies of each issue are sent to the paper, showing its distribution by counties and provinces, will be mailed free on request.

OUR GUARANTEE.

We guarantee that every advertiser in this issue is reliable, and we do all that we can to protect our readers, we turn away all unsupervised advertisers. We also guarantee that every subscriber, with you as one of our paid-in-advance subscribers, we will make good the amount of your loss, provided such loss occurs before the publication date of this issue. Yet it is reported to us within the week of its occurrence, and that we find the facts to be as stated. It is a condition of this contract that in writing to our subscribers we state: "I saw your advertisement in Farm and Dairy."

Rogues shall not play their trade at the expense of subscribers or friends, or through the medium of these columns; but we shall not attempt to adjust trifling disputes between subscribers and honest business men who advertise, nor pay the debts of honest bankrupts.

The Rural Publishing Company, Ltd
PETER ORO AND TORONTO

"Read not to contradict and to confute, nor to雄辩 and take for granted, but to weigh and consider."—Bacon.

A Wise Decision

In these days when many foolish laws are being passed and official regulations being made, relating to the increased production of food products and the control of their prices, it was refreshing recently to read the following statement by Herbert Hoover, Food Administrator for the United States:

"Price fixing for meat and dairy products has no place in the Government's food control plans. Not only would it be inadvisable to institute price fixings in these industries but the food administration has been given no such power. As long as there is a heavy demand for meat with decreased production, meat prices will continue to soar. The hope of the food administration is that it can stabilize quotations and thus eliminate speculation. I cannot believe that there is a panacea for a situation of this kind. Our problem is to increase production. The best we may expect is a slow development toward the ends we see. Everywhere in Europe price-fixing—that is, the naming of maximum prices—has failed."

The chief danger of existing conditions lies in the fact that Governments are devoting their attention to superficial things and neglecting the fundamentals. For years before the war, rural population was declining while urban population was increasing. For years also before the war, the number of beef cattle and sheep on this continent, in proportion to the total population, was

declining steadily. We were bound, therefore, to meet with a food famine sooner or later, even had there been no war. The war hastened conditions by some years, but is not the primary cause of the world's food shortage as this is affected by American conditions. The only effect the war has had has been to intensify conditions which were already prevalent, and which the country was beginning to realize even several years before hostilities commenced. By withdrawing still more men from the soil and then imposing a still greater burden upon those who have been left on the farms of both Europe and America, the dangerous situation that already existed has been aggravated, not created.

In America the primal cause of the food shortage lies in our economic conditions which, in a thousand and one concealed ways, cast unfair burdens upon the agricultural classes and thus tend to build up the cities at the expense of the country. Our land laws are one of the greatest causes, but in addition must be considered the combines and trusts which operate behind tariff walls and absorb the wealth of the country through enhanced prices into the pockets of the protected and bonused industries. Instead of these conditions having been dealt with in Canada, they have been intensified inasmuch as the tariff has been raised seven and a half per cent. since the war commenced. Instead of dealing with the fundamentals, our Government is crying for meatless days, for economy in the consumption of food, for the production of more food in back yard gardens, and other similar measures good enough in themselves, but absolutely inadequate to meet the needs of the situation. Thus the public is being led to expect relief from inadequate remedies. The result is certain to prove disappointing and the outcome is likely to create a very dangerous sentiment of unrest in the minds of the public who are beginning to lose confidence in the ability and integrity of Government officials. Further progress along existing lines leads in the direction of mob rule and even revolution.

Fundamental Reforms Needed

ONE of the most dangerous outcomes of existing conditions has been the tendency to begin the setting of maximum prices for food products. This may look like an easy way of meeting the situation but, as Mr. Hoover states, it is almost certain to prove disastrous in its results. When the price of any food product is arbitrarily set without regard to its relation to the cost of production and the profit obtained from its sale in comparison with other products, the ultimate result is certain to lead to a decreased production of this article and thus to make it more difficult for the public to obtain the very things which they most need. Expedients such as the fixing of prices are generally illusory in the benefits they appear to confer as such benefits are transitory in character and result in the creation of worse conditions than those they were intended to rectify.

Before the production of food products can be materially increased the burdens on farmers must be lifted and the net returns upon their labor and capital they have invested, must be materially increased. When the Government desired shells it paid sufficiently high prices for them to make it possible for the munition factories to pay high enough wages to attract labor from other industries to the making of shells. Until the production of food is made sufficiently profitable to make it possible for farmers to engage help at a profit we need not expect to see any material increase in production. Instead, a decline may be anticipated as long as existing conditions continue.

The first step required towards an increased production of food products is to remove the tariff

on all those things which the farmer requires in his farm operations. In addition, steps should be taken to lower the tariff on all articles where there is any reason to believe there are tariff combines. This suggests a very large list of articles. A third step would be to place a special war tax, either provincial or national in character, upon the unused land at least, both in the country and in the cities. This would tend to reduce the value of this land and make it possible for those who would like to use it for the purposes of increased production, to obtain control of it on conditions that would enable them to work it at a profit. These reforms are absolutely fundamental in character. To ignore them is to court disaster no matter how active the Government may be in the passing of regulations and laws dealing with existing conditions. Apparently these will have to become much worse before the public will realize the necessity for the taking of action of this character. Unfortunately, it may then be too late to take such action.

Breeding Counts

PROF. WILBUR J. FRASER, of the University of Illinois, has recently published convincing proof of the paramount importance of good breeding in profitable milk production. Prof. Fraser visited some large herds in his native state, selected the best and poorest cows from these herds, and shipped them to the University. The following year, the best cows from one herd had an average production of 5,682 lbs. of milk and 406 lbs. of fat, while the poorest cows averaged only 3,098 lbs. of milk and 119 lbs. of fat. The average production for three consecutive years was 11,390 lbs. of milk and 404 lbs. of fat from the good cows, and 3,830 lbs. of milk and 138 lbs. of fat from the poor ones.

The low production of the poor cows was not due to lack of feed. In all of these cases the cows were fed identically, their roughage consisting of alfalfa hay and corn ensilage, with a good grain ration for almost the entire year. The difference in production must be attributed to breeding. The good cows were bred for milk production; the others were not. Fortunately, the introduction of producing blood into a herd is comparatively easy. A dairy bull, bred from producing ancestry, will soon leave his mark on the milk producing ability of his offspring, and from them, in three or four years, a profitable young herd can be reared to replace discredited animals in the old herd. The first essential to such intelligent replacement, however, is milk and fat records to show where the unprofitable producers are.

Soldiers Dislike Oleomargarine

(Weekly Sun.)

"Oleomargarine is good enough for our soldiers, it is good enough for us." Thus have busy-body agitators argued their case for oleo, and played into the hands of the only ones to benefit from its introduction into Canada.

That it isn't good enough for our soldiers is apparent from the words of Pte. Jos. Wines, who is quoted as saying that margarine would never be used by the people of Earlscourt or the British people residing in Canada.

"English people will boycott it," says Mr. Wines. "They had enough of the stuff in the Old Country, and before it is forced upon the people of Canada there should be a vote of the returned soldiers and the soldiers in the trenches taken upon the matter."

There are two sides to this question; consumers and farmers take up all the room on one of them, while would-be oleomargarine manufacturers are on the other. It is a straight question of "loss and profit," respectively.

In Union There is Strength

United Farmers' Activities

ASPECIAL general meeting of the shareholders of The United Farmers' Cooperative Company Limited, held in Toronto on September 18th, ratified the decision that had been made at the last annual meeting to make application to the Provincial Government for authority to increase the capital of the company from \$10,000 to \$250,000. The purpose of the increase is to enable the company to buy and sell the goods it handles to better advantage than has been possible hitherto. For instance, it is possible to make great savings by purchasing supplies in large quantities. This requires large capital and for this reason the company has not been able hitherto to obtain goods at low enough prices to enable them to compete advantageously with other business firms. In the same way it is necessary in the fall and at other seasons of the year to purchase mill feeds and other supplies at low prices and later in the season, when the market price of these commodities has advanced, to sell them at a advantage, even although the price asked may be lower than that charged by most firms. Last winter the company found it had to sell certain lines of supplies because it had decided to go into the open market and purchase these at higher prices than they might have been purchased had they been purchased earlier in the season. Other companies which had more capital and which had purchased their supplies earlier were, therefore, able to undersell the Farmers' Company.

Meetings of the directors of the company were held both before and after the shareholders' meeting. It was reported that an influential labor organization in Toronto desires to enter into purchasing arrangements with the company. It has requested that a representative of the company attend their meetings and to order for farm products. The company has issued a special price list for the benefit of the members of this organization and hopes to obtain considerable business through them.

The directors have appointed a committee to revise the by-laws of the company's management which have arisen since the by-laws originally adopted. Another committee is at work preparing the prospectus which will be issued this fall and winter in selling the stock of the company.

The first six months of the year were much the most successful in the company's history, the sales during that period doubling the total sales for last year. During the last two or three months sales have fallen off considerably, owing to the binder twin situation, the impossibility of finding coal, and the fact that feed has been so plentiful this year, farmers have not been buying mill feeds and other similar goods. These are conditions, however, which occur in every business, and which, therefore, have to be taken largely as a matter of course.

The annual meeting of the company is likely to be held this year during the third week in December. To facilitate the making of reports the books will be closed on the 31st date of October. It is being recommended by the directors that this date for holding the annual meeting be made permanent.

The company has frequently been impressed that efforts should be made to see if the company can take steps to lead the various cheese factories in Ontario, which are now operating on the cooperative principle, to cooperate on a larger scale in the marketing of their products and the pur-

chase of supplies. A committee composed of President B. G. Tucker, Secretary J. J. Morrison, Manager E. C. Gurney, and Messrs. E. A. Van Allan, Aultsville; George Carlaw, Warkworth; H. B. Cowan, of Farm and Township; James R. Anderson, of Mountaineer; E. R. Steadman, Perth, and R. B. Fair, of the Ottawa Valley Journal, have been appointed to look into this matter.

There having been a desire expressed that steps should be taken by the company to assist farmers in the marketing of their live stock, another committee has been appointed, composed of President Tucker, Secretary Morrison, Manager Gurney and Messrs. Jon Little, of Shelburne; Fred Howland, Waterloo; J. L. Plain, Madoc, and H. Hooper, of Harold, to look into this matter.

Still another committee composed of the President, secretary and manager, with Messrs. E. G. Hoover, James Tookey, and F. G. Sandy, are looking into the seed situation.

U.F.O. Man Honored

MR. W. C. GOOD, second vice-president of the United Farmers of Ontario, has been tendered the nomination of the Independent Labor party at Brantford. Owing to pressure of business and domestic affairs Mr. Good has felt it necessary to refuse this nomination. Mr. Good is well known throughout Ontario and Canada as an up-to-date farmer, a clear thinker and a wideawake citizen. In placing his refusal before the party he called on the working men to break away from old party politics, stating that there is little difference between the parties which represent the Government and the Opposition, but to form with the farmers a new party with higher aims, which party will treat all alike.

The Press and the U.F.O.

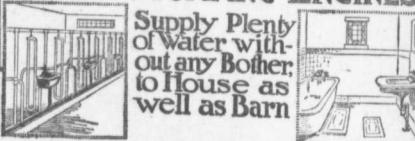
AN important meeting composed of Dr. R. H. Balter, Metchuton; J. N. Kernaghan, of Goderich; representing the United Farmers of Ontario; and Messrs. J. J. Morrison and E. C. Gurney, Toronto; Elmer Lick, Oshawa; A. A. Povers, Orono, and E. A. Van Allan, Aultsville, representing The United Farmers' Company, and representatives of the farm press, was held in Toronto last week for the purpose of discussing ways and means of interesting the farmers of the province through the press in the work of the United Farmers' movement. Dr. Kernaghan acted as chairman. Several farm papers were represented, including the Farm and Dairy, and the Canadian Countryside. The Farmers' Magazine, and the Weekly Sun. Mr. W. L. Smith, editor of the agricultural section of the Toronto Globe, was also present. At one time a member of The United Farmers thought that it would be possible to publish a small monthly or semi-monthly paper for circulation among those interested in the movement, giving all the information concerning the work being done in order to keep the members in closer touch with the central office. Careful inquiries have been made into the possibility of conducting such a paper with the result that it has been found that some leading advertisers would not advertise in it for fear their business might be injuriously affected by those who were engaged in the spread of the cooperative movement among farmers of the province.

That reason there is little possibility of securing enough advertising

(Concluded on page 17.)

TORONTO PUMPING ENGINES

Supply Plenty
of Water without any Bother;
to House as well as Barn



THE TORONTO Pumping Engine does much more than relieves you of the tedious labor of hand pumping. With a pressure or elevated tank, it supplies an abundance of water under pressure, so that you can have it always on tap throughout the house as well as the barn, and with force enough to wash windows, buggies or autos, and even put out fires.

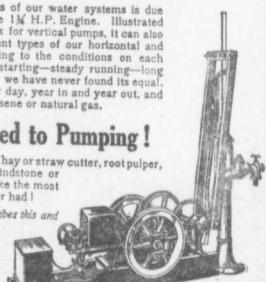
The outstanding success of our water systems is due largely to our wonderful Jack or Mule Engine, illustrated here with our standard Jack for pumping water, we can also be used with several different types of our horizontal and "Bulldozer" pumps, according to the conditions on each particular farm. For easy starting—steady running—long wear—and economy of fuel we have never found its equal. It is right on the job, every day, year in and year out, and runs on either gasoline, kerosene or natural gas.

Nor is it Limited to Pumping!

Connected up to grinder, hay or straw cutter, root pulper, cream separator, miller, grinders or washing machine. It will make the most willing "chore boy" you ever had!

Our Illustrated Booklet describes this and other pumping engines fully and gives much valuable information about water systems generally. Write for it.

We also manufacture Engines, Windmills, Silos, Stable Equipment, Etc.



STOCK show their appreciation of TORONTO STABLE EQUIPMENT

by producing more milk and beef from the same feed. That's because TORONTO Steel Stalls and Stanchions, Litter Carriers and Water Bowls make their living quarters cleaner, drier and more sanitary, and provide a comfortable drink whenever they want it.

16 Write for our Illustrated Booklet on Stable Equipment—there are some profitable pointers in it.

Ontario Wind Engine and Pump Co. Limited

Dept. "D" TORONTO and MONTREAL



GILSON—"JOHNNY-ON-THE-SPOT"

THIS ENGINE
only
\$49.50



A BIG, little engine, that "Goes Like Sixty" at very light and medium heavy job the farm. A horse or mule lighter—dominating in Quality and Service. The largest self-propelled engine of any size in Canada—quantity production enables us to sell all competitors—raising the quality, and lowering the price. Do not buy a cheap engine—buy a good one at a quantity. All sizes at proportionate values. Write today for free catalog showing just what size engine interests you.

GILSON MFG. CO. Ltd. 407 York St., GUELPH, Ont. 40

THE UPWARD LOOK

God's Wishes

For this is the will of God, even your sanctification. 1 Thess. 4:

It is such a blessed question to ask often in our Christian life: What is Christ's wish or will for us in regard to a certain course? If He could speak to us, what would He advise? If He were here with us, what action would He take? In the hour of deepest grief we know that that is His will for us. At the moment of keenest joy, that also is His will. The greater the love for Him, the closer we live with Him; the more vivid is this thought and the more it is a guiding thought in our lives.

The following is an illustration of the powerful incentive that the wish of a dead one, may be:

For many years, now, visits have been paid, in connection with patriotic work, to one particularly lonely house. There was so little furniture in the living-room, that certain articles, set in state on the centre table, showed upon conspicuously. These were a teddy bear and a doll set of furniture which had once been given to a little daughter, by a dearly loved son, who had bought the front, "somewhere in France" for a sum year. All his post-cards were shown and letters read at the monthly visits. Occasionally the visitor took with her a little child, to make the visit a bright spot in the lonely lives.

This week the child was taken. On arriving the sad news was received that the son had been killed. Unconscious of the terrible tragedy, the little one had taken possession of the toys. On leaving she went to put them away. Through tear-dimmed eyes the old man looked at his wife. She nodded, and then, with tears falling fast, after tenderly dusting them she put them into the arms of the little one. The strenuous remonstrances of the visitor continued until the old man looked up with a smile, though his face was marked with anguish, and said: "If he had been here, he would have wanted the baby to have them."

I. H. N.

Flowers From Christmas to Easter

John Gall, Peet Co., Ont.

No class of pot plants gives more pleasure or better results for the time and trouble expended on them than does a well selected collection of fall potted bulbs. They are particularly well suited for the amateur flower lover, as, by a little care in their culture, a succession of their beautiful fragrant blossoms can be obtained from Christmas until Easter, or later if desired. Bulbs can be potted from September until the end of November, but the early potted bulbs give the best results. Bulbs of Roman hyacinths and early paper white narcissi, potted early in October, may be in bloom by Christmas.

A good collection for the amateur is white Roman hyacinths, named Dutch hyacinths, and narcissi in varieties. The white variety of Roman hyacinth is the best. The other colors are not quite as pretty, are not so uniform in shape and are not as early flowering as the white. The blue, rose, and pink shades, however, give a pleasing effect. Always pot colors separately, especially the white, as they bloom at different periods. Roman hyacinths should be planted as thick as three or four to a five-inch pot, or more bulbs to a larger pot to give the best effect.

The single flowering varieties of Dutch hyacinths usually give the best results. The selection is largely a

matter of taste in colors and shades, as all named varieties are usually of equal value. Dutch hyacinths always look well planted in groups of five, or seven, in jardinières. There should be about one and a half inches of space between each bulb when planted in groups.

It is such a blessed question to ask often in our Christian life: What is Christ's wish or will for us in regard to a certain course? If He could speak to us, what would He advise? If He were here with us, what action would He take? In the hour of deepest grief we know that that is His will for us. At the moment of keenest joy, that also is His will. The greater the love for Him, the closer we live with Him; the more vivid is this thought and the more it is a guiding thought in our lives.

The soil for the pot culture of bulbs need not be very rich in fertilizers. At the same time bulbs will not give the best results in poor soil. If the fine, sharp sand as before recommended. Always have the soil fairly dry when used for potting.

After bulbs are planted give the pots sufficient water to moisten well all the soil. Then stand the pots away in a cool, damp, dark place in a temperature of from 40 to 50 degrees

to secure good roots on the bulbs. The cellar floor, a dark basement, a close cupboard or box will serve this purpose well.

The bulbs as a general rule take four or five weeks to root well. To secure good roots on bulbs before bringing them into the window is absolutely essential to ensure the best blooms.

The bulbs may remain in their cool, dark quarters for several weeks after being rooted if desired. They must be brought into the window when the top growth has reached a height of about two inches, else the flowering results will not likely be as good as they should be. When brought into the window, do not place the pot in too sunny a position. Always make sure that the soil is kept thoroughly moist by regular and copious waterings. Give enough water to moisten all the soil in the pot. Bulbs not potted early in the season should be kept in a cool room or cellar until

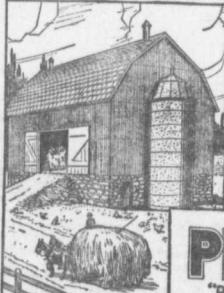
wanted so as to prevent them starting into top growth.

Substitutes Should be Liberally Used

THE following is an extract from a letter to the Women's Auxiliary of the Organization of Resources Committee and their coworkers throughout Ontario, sent out by Food Controller Hanna:

There is a world famine of wheat and a world shortage of beef and bacon. This is the commodities most required for overseas. It is to ensure supplies of these foods and other non-perishable and easily storable commodities that every housewife is being asked to sign the Food Pledge. Canada has abundance of other foodstuffs. By reducing domestic consumption of wheat, beef and bacon and by using substitutes, the housewives of the Dominion can give

IMPROVE YOUR FARM



Add to its profitability as a business, its comfort as a home and its value as an investment by modernizing it with

PEDLAR'S
"PERFECT" SHEET METAL
PRODUCTS

Pedlar's Corrugated (Galvanized) steel Siding and "George" Shingles for modern houses, and Pedlar's Silo Covers.



Pedlar's Metal Ceilings and Walls for the interior—2000 handsome patterns—last as long (without repairs) as the house itself.

Delapidation rapidly overtakes any wooden building which day finds may destroy. Every thunder storm brings the menace of lightning. But if you build with Pedlar's Sheet Metal Products you have buildings that will endure long years without repair and that are practically immune from lightning or other accidental cause of fire.

ILLUSTRATING and describing Pedlar's Sheet Metal Products for the farm



Pedlar's Toncan Metal Culverts for farm drainage are unexcelled. Last longer than the road they run under. Easily and quickly installed by anyone.



Pedlar's Portable Garages for the car, quickly erected buildings for housing implements, etc., are conveniences highly appreciated.

Pedlar's Sheet Metal Products are the true farm economy. They mean freedom from excessive fixed costs. They reduce repair bills to the lowest ebb. They constitute a permanent improvement that benefits you whilst you work the farm and make it easier for you to get your price when you are ready to sell.

OSHAWA, ONT.

THE PEDLAR PEOPLE LIMITED

Executive Office and Factories

ESTABLISHED 1861

Branches at Montreal, Ottawa, Toronto, London, Winnipeg, Vancouver

September 27, 1917.

September 21

BUY Hallam GUARANTEED FURS

BY MAIL DIRECT FROM TRAPPER TO YOU

No matter where you live, you can obtain the latest styles and the highest quality in Fur sets or garments from Hallam's by mail. All Fur garments and sets of any description can be obtained direct or by mail at lower prices than elsewhere for the same quality—every Hallam garment is guaranteed.

Why We Can Sell at Such Low Prices

You can, for cash, save the amount short of the Trapper's price, and get reduced accounts—salesmen's salaries. You can also save the amount of the middleman's profits, and we can do this without interference—if the goods do not please YOU! in any way—you can simply send them back to us, and we will refund your money—OUR EXTRAS!—and we will refund your goods returned, not one cent—we are thus compelled to give extra value, as we cannot afford to have goods returned.

The articles illustrated in this advertisement are fair samples of what we can send you, and will be sent postpaid on receipt of price.

1500—Dressing Coat

of the Manchurian Wolf Set. Newest design, made from fine, jet black silky skins. Fully lined, with wide colors, carefully matched, and workmanship is faultless. Price \$15.00. Hand-crafted brown satin—new style collar, which can be worn as a high collar or a small illustration. Finished at waist line with half belt and ties \$12.42 bush. \$75.00, delivered to you.

1500—Muff to match in new melon shape (as illustrated), or in pillow style, \$11.50, delivered to you.

1500—Hat to match, silk lined. \$7.50, delivered to you.

FREE

A beautifully illustrated Fur Style Book—giving advance information on furs and fur fashion. It contains full descriptions of all the latest styles of Fur Garments. All these illustrations are photographs of living persons. See how the FUR LADY wears her fur. For every member of the family. Don't fail to send for this book TO-DAY—it is now ready for mailing. Send for it as soon as requests are received.

HALLAM'S 1917-18
FUR STYLE BOOK

Don't forget to send for Hallam's Style Book to-day—it's FREE—Address, using the number as below.

John Hallam Limited

835 Hallam Building

TORONTO

The largest in our line in Canada.



FOR Severe Service on the farm, you will find no engine to equal a Page. Two types—one having a engine and one that runs on gasoline. Five sizes of these engines, the smallest 1½ h.p.; the largest 7 h.p., each one offered at extremely low prices, as the result of our direct-to-the-farmer way of doing business.

For constant hard work, you need an engine as dependable as the Page. Its usefulness and all-round dependability make it unequalled at much higher prices. A post card will then be sent you full information about the Page, and promptly bring you a report in a short while, that furnishes power at low cost.

THE PAGE WIRE FENCE COMPANY LIMITED
WALKERVILLE, ONTARIO.

vital war service. They will give it when they realize the necessity.

All that is asked at present is that they do not use beef and bacon on two days a week or at more than one meal on any other day, that they reduce their consumption of wheat bread by one-quarter and they use payable and non-exportable products to the greatest possible extent as substitutes for the staple foods required for export.

The appeal to the housewives is contained in the one word "substitute." When they realize the great need of the fighting forces and the Allies they will also save every ounce of food possible in order to release more for export. To do this means the complete conservation of our food supplies and the elimination of waste.

A "Soda Biscuit" Roaster

THAT necessity oftentimes is the mother of invention was brought to my attention a few days ago. I was spending the weekend with a friend at her summer cottage. Of course it is impossible to have conveniences in a summer home to the same extent as one would have on the farm or in the city. While preparing meat for dinner, my friend produced out of the long, narrow tin soap box a soap box, which are commonly purchased nowadays. "This is my roasting pan," she said, "and it works to perfection. One day shortly after I came out to the cottage I wanted to roast some meat and suddenly it occurred to me that I did not have a roasting pan. What was I to do? I hunted through my pots and pans and finally came across this biscuit box. I lid fits tightly, so I put in my meat, pour in a little water, fasten down the lid, and have an improvised roasting pan, which fills the bill nicely. I also use the same tin for baking bread, as I like the size of loaves it accommodates."

Probably on the farm such a roasting pan would be too small for the majority of roasts that we buy. In these days of high prices, however, we also in view of the fact that we are asked to cut down our meat supply, no doubt our roasts will assume considerably smaller proportions and in lieu of better roasting pan, we might well turn to the soda-biscuit roaster.—R. M. M.

Butter Making Awards

WARDS in the butter-making competition at London were as follows:

Amateur Class.—1, Miss C. A. Comer, London, Ont., score, 96.68; 2, Mrs. R. C. Young, Belmont, Ont., score, 96.4.

Free for all Class.—1, Mrs. W. Hill, Parry Hill, Ont., score, 97.68; 2, Miss L. B. Gregory, Ilfordon, Ont., score, 97.64; 3, Miss A. Barber, Guelph, Ont., score, 97.60; 4, Miss M. Bryden, Puslinch, Ont., score, 97.46; 5, Miss M. C. Scott, Denfield, Ont., score, 96.86; 6, Mrs. R. C. Young, Belmont, Ont., score, 96.50.

Churned Butter Class.—1, Miss M. Bryden, Puslinch, Ont., score, 97.75; 2, Miss A. Barber, Guelph, Ont., score, 97.62; 3, Miss M. C. Scott, Denfield, Ont., score, 97.53; 4, Mrs. Houston, Weston, Ont., score, 97.22.

Churn donated by Beatty Bros. London, won by Miss M. Bryden.

Lemon Pie

Volks of three eggs, well beaten, add two cups sugar and a piece of butter, three and one-half tablespoons corn starch dissolved in a little cold water. Mix all thoroughly, add three cups boiling water, put on stove and boil. When cool add juice of two lemons. Use whites of eggs for meringue. This recipe will make two pies.



WHEN USING
**WILSON'S
FLY PADS**
READ DIRECTIONS
CAREFULLY AND
FOLLOW THEM
EXACTLY

For more effective than Sticky Fly Catchers. Clean to handle. Sold by Druggists and Grocers everywhere.



PATENTED IN ONE DAY
DOES THE WORK OF 50 MEN
SEND FOR FREE BOOKLET

The Preston Car & Coach Co. Limited
83 DOVER ST. PRESTON CANADA



at a small cost, by using our attachable seats. Fit your bicycle with our special tools required.

"Compared With Others."

Mr. C. P. Whalen, at Cheviot, Pa., says: "I have used your attachment on my bicycle for over a year now and am very pleased with it. It has a great many advantages over the others I have tried."

Mr. J. C. Johnson, of New York City, says: "I have had a great deal of trouble with the other attachments, but your attachment is a great improvement. I have had no trouble with it."

Mr. W. H. White writes today for further information concerning the BIAA Bicyc-

cle Motor Attachment, and the BIAA

Motorcycle, both manufactured by

SHAW MANUFACTURING CO.,

Galesburg, Ill., U.S.A.

Dept. 185

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Coming Autumn and Winter Styles



AUTUMN style secrets are gradually being divulged, and of course we are always interested in learning what new style features will prevail for the coming season. One feature, we are told, will be exceedingly narrow skirts for walking, but it is hoped that the ridiculously narrow skirts will not be received with popularity, as those of a greater width will be much more comfortable and becoming. The high waistline is evidently being a strong competitor to the low style of collar. Some of these high collars are to flare upward and outward, not fitting tightly under the chin. It seems that the correct position of the waistline in dresses has not been quite settled up to the present, but the new silhouettes will be slim and tight just below the waistline, around the hips, and there will be no flare from the top.

Autumn millinery is being fashioned from velours, silk plush and velvet. Black and white combinations, black, brown, and grey are some of the most popular Tam O' Shanters are receiving great prominence at the opening of the season at all the fairs. The desire for quietness and simplicity are to make the autumn costumes. All we can do is "wait and see."

339—Child's Set of Six Clothes—Many mothers will no doubt welcome this short clothes outfit, which includes patterned dress, a dress and a drawers. Five sizes: 1, 2, 3, 4 and 5 years.

2152—2153—A Stylish Gown—The combination of two materials is shown to advantage in this gown. The blouse has a large collar and is trimmed with ruffles from the collar to the waist. Line of contrast is used in the blouse. The belt and lower portion of skirt are also constructed of contrasting material. If desired, the belt may be omitted as shown in the smaller back view. The blouse can be had in two patterns, 10 cents for each. The blouse cut in sizes from 24 to 44 inches bust.

neckerchief and the skirt from 22 to 32 inches bust measure.

2142—Dress for Misses and Small Women—Many of the pretty flowered materials would make up attractively from a draped effect. The blouse has a wide full skirt with heading is quite popular and a flowing sash is also a feature of the design. The belt effect is shown in both back and front of blouse. Three sizes: 16, 18 and 20 years.

2152—Girl's Dress—We imagine that this style will be quite popular in the home, will prove a favorite with many young home dressmakers. A material with a striped effect is particularly suited to this style, although no doubt many plain materials would be equally attractive. The collar and cuffs are cut in a wide way and the belt gives a high-waisted effect. Four sizes: 4, 6, 8 and 10 years.

House Dress—House dress styles always come in for their share of attention in our pattern columns and here we have one designed on simple lines, with a striped effect. The collar, cuffs and belt may be made from contrasting material, thus giving a more chiseled effect. The belt and cuffs are cut in a wide way and the belt given a high-waisted effect.

2153—A Simple Negligee—It seems extremely appropriate for the house and Christmas gifts, but this negligee design brings the idea to our minds that such a thing as the one hereewith. Seven sizes: 1, 2, 3, 4, 5, 6 and 7 years.

1977—Lady's Apron—How many have laid in their supply of fall and winter aprons? This apron with its belt design here shown should act as a practical suggestion. The belt gives a very neat appearance. The belt is not a overall apron. Four sizes: 34, 38, 42 and 46 inches bust measure.

We anticipate that many of our Fall and Winter pattern catalogue offer, by sending along an extra dime with their catalogues to their homes.

Pennmans

Underwear

THE STANDARD OF EXCELLENCE

Slip into a suit of Pennmans and you will be satisfied—because material, style and workmanship make Pennmans the last word in underwear.

Pennmans, Limited,
Paris

Also makers
of Sweater
Coats and
Hosiery

WHAT A FINE GIFT!

Here is a chance for the Boy and Girl readers of Farm and Dairy to give their Mothers a fine present.

BOYS AND GIRLS,

all you have to do to get this Fine Chest of Silver is to send us in Ten New Subscriptions to Farm and Dairy,



This chest contains 26 pieces of silver—six solid handled knives, six flat handled forks, six teaspoons, six tablespoons, a butter knife and a sugar shell.

The chest is hardwood and is fitted with a drawer and handles.

On receipt of only Ten New Yearly Subscriptions to Farm and Dairy, we shall immediately send you one of these sets.

Send for them early as our supply is very limited

CIRCULATION DEPARTMENT

Farm and Dairy - Peterboro, Ont.

Celery for Winter

(Continued from page 9.)
mann makes it more stringy than it otherwise would be.

In the colder sections of the country it is necessary to take all the plants up and store them out in a cold cellar or in long narrow boxes about one foot wide and deep enough to hold the plants upright. As in trenching, the roots should be left on. A couple of inches of moist sand should be placed in the bottom of each box. Put these boxes into a cool, dark cellar. The stalks will blanch out as they are required for use.

Be sure that the cellar is rat-proof, as rats are very partial to celery plants during the winter. Celery should only be stored while it is perfectly dry, otherwise it will spoil.

The Press and the U.F.O.

(Continued from page 11.)
to enable such a paper to ever pay its way.

It was suggested that the United Farmers of Ontario might send out weekly statements to the press relating to the development of the movement. The farm papers pointed out that they had published on different days of the week, so that such reports therefore, would appear in some before they could be used in others. This meant that the papers that received the reports last would not care to publish them. Another suggestion which met with more approval was, that a committee of The United Farmers of Ontario should prepare a list of suggested topics for discussion each week during the fall and winter months by the local clubs. Copies of this list could be furnished to the clubs and to the farm papers, who later might encourage their readers to contribute articles on these subjects in advance and the papers might themselves prepare special articles, these to be published in departments relating to the United Farmers of Ontario. This plan was generally considered, although it was felt that there would be difficulties in the way of the papers being able to induce enough farmers to write and for them to give the time to editing them, departments sufficiently might be desired.

When it was realized that there were serious difficulties in the way of educational work of this character there was an unanimous feeling that it was desirable that something should be done. It is hoped that growing out of this meeting more educational work of this character will be conducted during the coming winter than has been done in the past.

Four Thousand Bushels of Corn

(Continued from page 12.)
used to raise good crops, but like most peat land, a few crops wore it out."

"I don't see why it should wear out so quick. It looks rich."

"You can't always go by the looks. Got your new hired man yet?"

"He comes to-morrow. Bill Ellis is his name; he's from over toward Sweetwater."

"Bill Ellis! Bill Ellis!" Sam repeated. "Seems to me I've heard that name somewhere." He looked up suddenly.

"You don't mean Bill Ellis?"

"That's his name. What is the matter with him, anyway?"

"Oh, he's all right, I guess. Only, with your father away, I wish you had some one else."

"Now see here," Jimmie exclaimed, "you're the second man that seems to think there is something suspicious about Bill Ellis! I want to know what it's all about."

"Nothing that I want to tell you now, Jimmie. Let me know any time want anything. Good night," and went down the hill toward his

house.

Jimmie could get nothing out of Jimmie about the mysterious new hired man, and he went into the house more mystified than ever.

The telephone bell rang, and Jimmie answered it.

"This is Colonel Edwards," came the reply. "You remember what I said this afternoon about what could be done with forty acres if it were farmed intensively? Well, I've decided to offer a prize of five hundred dollars to the farmer or farmer-who this year raises the largest crop of corn on forty acres. Particulars will be published in this week's paper, but I thought you might like to know now."

Jimmie thanked him and hung up the receiver.

"Wouldn't it be fine if we could win that prize while father and mother are away?" Mary exclaimed, when Jimmie

told her and Aunt Jane about the colonel's offer.

"We're going to let the rest of them know we're in the contest," Jimmie replied, earnestly, "if we have to raise four thousand bushels of corn to do it."

There was nothing alarming in the appearance of Bill Ellis as he walked into the McKeene yard the next morning. He was big and muscular, and looked like a willing worker. He went to the barn, where Jimmie was sowing seed oats.

(Continued next week.)

Heavy Horses: Rutherford McMillan, Lanark, 182; Wesley Scarbro, Carleton, 177; S. J. Munro, Stornoway, 167; Geo. E. Wiggins, Grenville, 162; Jas. W. Mulholland, Dundas, 153.

Beef Cattle: A. M. Ewart, Lanark, 171; Clarence Wilson, Grenville, 168; Frank Greavy, Dundas, 166; W. J. Fawcett, Dundas, 164; Thos. K. Stewart, Lanark, 151.

Sheep: Clarence Wilson, Grenville, 132; Harry Johnson, Dundas, 131; Nelson Cross, Leeds, 117; S. J. Munro, Stornoway, 93; J. E. Gardner, Lanark, 87.

Swine: John Snedden, Lanark, 184; Harvey L. Thompson, Lanark, 169; Wm. E. Graham, Dundas, 137; Fred Brassard, Dundas, 126; Nelson Cross, Leeds, 120.

Dairy Cattle: Ambrose Kennedy, Glenary, 168; John C. Gauthier, Glenary, 157; Clifford Knapp, Grenville, 134; J. B. Plankett, Grenville, 132; Harry Johnson, Dundas, 129.

Judging Competition at Ottawa

A FEATURE of the Central Canada Exhibition, Ottawa, was the Junior Farmers' Judging Contests. Following are the names of the leading five contestants in each of the judging classes, with the counties from which they come, and their score:—

What Did Little Mary Plant?



What vegetables do these pictures represent?

TELL US AND Win a Motor Car, Piano, Pony Bicycle, Phonograph Range, Watch, Sewing Machine Etc., Etc., Etc.



Little Mary did National Service Work this year had her own garden. What did she plant in it? The pictures tell you! Put your wits to work, and make out the secrets of the pictures! Those who send us correct or near correct answers qualify for these

BIG PRIZES

1st prize—1916 Chevrolet Touring Car, complete equipment, including car-starter, electric lights, spectacles, etc.; value \$750
2nd prize—Sweet-toned Hinckle Piano; value \$350
3rd prize—Petrol Station Gas Range (or cash)
4th prize—Furnace and High-Brown Range (or cash)
5th prize—Singer Sewing Machine (or cash)
7th prize—Standard Cream Separator
8th prize—Housier Beauty Cabinet (or cash)
9th prize—High Grade Bicycles (or cash)

And 41 other desirable prizes, including Waltham Watch, 1909; Washing Machine, 1909; Chest, Phonograph, Sports, Umbrella, Umbrella Case, and Biggest Rings, Kodak, etc. (see Official Rules, page 11, if preferred).



New for 1918 Passengers Model Fully Equipped!
1st PRIZE
"PERSONAL"
TOURING CAR
2nd Prize Value \$350

MAKE this interesting Contest your entertainment for these autumn events. Let all the family enter. The pictures to be sent in must be taken by qualified contestants. There is one round trip to stand a chance to win, in addition to one of the five big prizes offered—the Chevrolet Touring Car. Send your entry now—get in first!

Big Complete Price List Sent Free.

Address Solutions to

The Contest Editor, RURAL CANADA



What vegetables do these pictures represent?

YOU WILL BE PAID A REWARD OR CASH

EVERY qualified contestant will receive surely a valuable reward, as may be preferred (send for list) for the best picture in size, Rural Canada for Women, to some of the following contests. These rewards, or cash, are in addition to the Big Prizes which may be won.

Send along your entries, and the punishing pictures. Tell us what Little Mary planted in her garden.

To the person who sends in Picture No. 1 (a Cauliflower (Call-eyes-flower) and picture No. 8 (Beta (Beet) Root), see set of rules for pictures. Can you get them all right?

RULES

Please observe these simple rules:
1. You may enter only one picture.
2. Put your name and one line of paper, with your full name and address (not Box No. or Mississauga, etc.).
3. The upper-right corner of the picture, other than this must be written on a separate sheet of paper, and only those over 10 years may compete.

4. Qualified entries will be judged by a committee of three, selected by the judges whose decisions will be accepted as final.

5. The date is December 27, 1917, immediately after which the judges will award the prizes.



3rd Prize Value \$100

September 27, 1917.



Production alone is not enough . . . skilful marketing makes for profits.

Together they tend toward prosperity every time—for the farmer and for the nation. But most farmers are too busy producing to develop a more profitable marketing system themselves. Co-operation is their hope. Together they may organize a selling business which will do it for them. They may then hire a competent manager and secure efficient selling equipment. With careful organization and the application of sound business principles they will bring home the profits. It is worth a trial.

Co-operation is democratic, practicable and profitable.

Organizing for Solid Success

Capital is the first requirement. It is always unwise to venture in any business without sufficient funds. Many of the difficulties are promptly overcome when an adequate supply of capital is available. You can get abundant funds by capitalizing your credit on the joint note plan. Write for particulars.

A RESERVE FUND. No successful business is run without some losses—buildings deteriorate, accidents in shipping occur, unexpected expenses are encountered. Without a reserve fund these demands are difficult to meet, and discouragement and dissatisfaction are liable to ensue. A reserve fund safeguards any co-operative enterprise.

Mobilize for Marketing



KEEP ACCURATE ACCOUNTS which will show exactly the condition of the business at all times. Careful and accurate book-keeping is of vital importance.

QUALITY OF PRODUCE should be the slogan, and if adhered to will bring success. High-class products sold on their merits make satisfied customers, increase trade and produce profits.

ADVERTISING PAYS in any business. Choose a trade name, give it a reputation for quality, and place it before the public in good advertising mediums. This will increase the demand and widen markets.

THE MANAGER and other servants of the farmer are worthy of their hire. Pay them well and insist upon efficient service. It will ensure their loyalty and best work, and will make the business grow.

GENERAL PRINCIPLES as proper grading, suitable packing, continuous supply, knowledge of markets, etc., must be thoroughly mastered by the manager and fully appreciated by the members.

CO-OPERATION—SOUND IN PRINCIPLE, FEASIBLE IN PRACTICE, should be more generally studied and more widely applied than ever before. The crops this year—and in every year—should be marketed at a reasonable profit to every efficient producer. The interests of the most important class in Ontario, and of the nation, demand it. For full information regarding any of the above or for direct assistance in organizing a co-operative association of any nature in your own community, write the Office of the Commissioner of Agriculture, Parliament Buildings, Toronto.

Control by Members

is the distinct feature of the co-operative association

Each member must have but one vote—under any circumstances one vote only. Capital invested must receive a good interest, never profits. This democratic control and these methods of dividing profits are the only points of difference between the co-operative association and the joint stock company. Otherwise the business must be conducted in exactly the same way if it is to be a permanently successful association.

Bed Rock Business Principles

AN AMPLE MARGIN between prices paid and prices received should be retained to ensure the covering of all costs. The usual margin allowed by successful business in the same line should be retained until the co-operative association proves itself by practical experience to be efficient enough to do the business on a smaller margin.

For general information upon the subject write the Office of the Commissioner of Agriculture for bulletin No. 234—Co-operative Marketing Associations.

The Ontario Department of Agriculture

Parliament Buildings
TORONTO

SIR WM. H. HEARST
Minister of Agriculture
Dr. G. C. CREELMAN
Commissioner of Agriculture

