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# FARM AND DAIRY

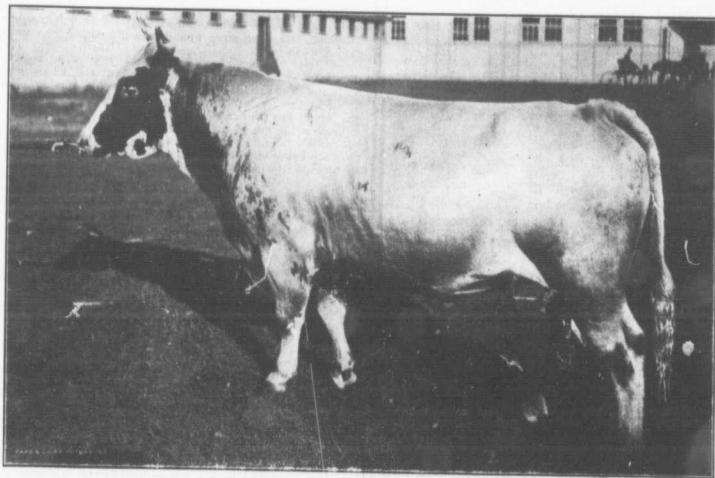
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## RURAL HOME

PETERBORO, ONT.

OCTOBER 14,

1909



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## THE SECURING OF BETTER MARKETS FOR CANADIAN FARM PRODUCTS.

Farm and Dairy as a rule does not care to publish articles on tariff questions. Space does not permit of their proper discussion in a purely agricultural paper. An exception has been made in the case of the following report of an address delivered recently by Mr. W. Sealey, M.P., at a gathering of farmers in D. Wrentham county. Although a Liberal, Mr. Sealey was elected to the House of Commons in a constituency previously Conservative, largely because he advocated greater protection for our Canadian farmers. Such protection, he contended, will send them to secure free trade. The following outline of his address speaks for itself—Editor.

How can we get better markets and prices for our products without being unfair to the consumer? While our distant and foreign markets are very good, our home and nearby markets are by far the best and most profitable. They are, therefore, the most precious to be preserved.

Universal free trade would give us the best natural opportunities. Free trade, however, is impossible at the present time. We must, therefore, make the best of the circumstances as we find them, both at home and abroad.

### TARIFF READJUSTMENT.

Of the various suggestions for improvement that have been made, a rearrangement of the tariffs on agricultural products, strikes me as being most practical. While some may say that "Trade Laughs at Tariffs" and still continues to grow, it grows in the direction of least tariff resistance and, therefore, the tariff influences its direction and determines to quite an extent what country shall profit most by it. For instance, very few Canadian eggs are being sold in the United States because the McKinley tariff prevents their sale. Previous to the passing of the McKinley bill we sent millions of dozens of eggs to the United States. No United States steel rails are being sold in Canada. Why? Because the Canadian Tariff prevents it.

If it is good for Canada, by tariff, to get the whole tariff in the hands of two concerns, only, who might chance to arrange a combine, why would it not be good for Canada by tariff to put the trade in agricultural products in the hands of one million of Canadian farmers, who are perfectly safe from any possibility of a combine, and whose local competition provides the consuming masses of Canada with the best and cheapest necessities of life?

If we are agreed on this, it is up to us to arrive at the best method of bringing this about.

### AN IMPORTANT INDUSTRY.

In Canada, to-day, we have 500,000 acres in fruit worth about \$150 an acre, making an investment of \$75,000,000 yielding \$15,000,000 of produce annually. While special statistics for vegetables have not been kept separate, I take it that there is an equal acreage worth \$100 per acre or an investment of \$50,000,000 yielding \$10,000,000 annually at that in fruit and vegetable industry combined there are 100,000 people engaged. If space permitted I would be glad to show how these calculations have been arrived at. Our fruit and vegetable growers represent 10 per cent. of our industrial population, and a vastly greater amount of capital than any other Canadian industry except general agriculture. In fact, amalgamated with general agriculture as we should be and really are, we are of sufficient importance to have what we believe is for the best interests of Canada if we unitedly and forcefully ask for it. The question is, shall we do this?

### IMPORTS OF PORK PRODUCTS.

The trade and commerce returns for 1908 show that \$3,000,000 worth of pork products were imported from the United States to Canada at two cents a pound, and only \$5,000 of hams and bacon exported from Canada to the United States at five cents a pound. Our consumers were not benefited and our producers were seriously injured. Horses worth \$1,

250,000 were imported at a tariff charge of \$12.50, on each and only \$300,000 worth were exported at \$30 each. Apples, \$150,000 worth were imported at 40c. and \$318,000 exported at 62c. Cheese, 800,000 lbs. imported at 3c. duty and only 173,000 lbs. exported to the United States at 6c. duty. Butter 300,000 lbs. imported at 4c., and only 200,000 lbs. exported at 6c. duty. Eggs, 1,100,000 dozens imported at 3c. duty and only 32,000 exported at 6c. duty. Hay, \$221,000 worth imported at \$2 and \$243,000 worth exported at \$4.00. Flour 43,000 bbls. imported at 20c. and only 25,000 bbls. exported at 6c. Of wheat nearly 6,000,000 bushels were imported last year, whereas only 115,000 exported to the United States, our tariff being 12c. against them and theirs being 25c. against us, and recently raised to 30c.

I do not imagine that all the wheat imported was ground for flour for Canadian use. So far as I can gather it was largely shipped to Great Britain, where it was sold at an equal number of bushels of our best Western wheat, getting the advantage of the extra price and substituting an inferior quality, thereby injuring the reputation of our Canadian product. Unless we are cautious, before long our reputation for wheat in the British market will be injured, as our reputation for bacon has been by the substitution of non-Canadian product of inferior quality.

The items quoted, as well as many other agricultural products that might be referred to, show that the McKinley tariff is most entirely effective in shutting out our products from their market, whereas our tariff against them permits them to supply our market with a very large quantity of their surplus product. Their consuming population is fifteen times more numerous than ours. Under perfectly equitable conditions the United States should take fifteen times more of our produce than we take of theirs. Instead the actual results are the other way, to the extent of three or four times. This shows that their tariff management produces a surplus for the importer and producer along agricultural lines to a very much greater extent than does ours.

If the consumer were getting the benefit of this might be made a moderate excuse for these conditions, but so far as we are able to investigate, it is the importer, speculator and commission man, who pockets the profits, largely on a speculative change of the slaughter market days in the United States, against which it is difficult to get our anti-dumping clause applied all along the line. This deprives our producers of their home market and discourages home production by bearing down the price to them. At the same time the middle men charge the home consumer all he can stand and in many cases much more than the foreign market price warrant.

### WHAT IS WANTED.

We don't require these products from the States. Our farmers, our wives and daughters should keep a million more hens and produce these eggs, and our farmers keep a million more hogs and supply these hog products and keep 10,000 more horses and supply our requirements in this respect, and 10,000 acres more hay, (Continued on page 6.)

# FARM AND DAIRY & RURAL HOME

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Vol. XXVIII.

FOR WEEK ENDING OCTOBER 14, 1909.

No. 41.

## HOW TO DETERMINE THE GRADE OF A DITCH

Prof. Wm. H. Day, Ontario Agricultural College, Guelph.

### Peep-sights for Home-made Drainage Level—Their Use in Getting Accurate Readings—A Simple Method of Determining the Fall—Valuable Information for Farmers.

IN four years of close contact with drainage problems in all parts of Ontario, the Department of Physics at the Ontario Agricultural College has come to the conclusion that one of the main reasons why the practice of underdrainage has not become more general is that people have neither means nor method of determining whether they have fall enough for tile drains, and they don't want to go ahead till they find out. Very frequently when you go to make a survey for a man he says: "I just want to know if I have fall enough." Some years ago we devised a simple drainage levelling outfit which any man could have, as it would cost only \$1.50 to \$2.00, and which anyone could use to determine whether he had fall enough, as the method is simple. We now have a valuable improvement to that "home-made drainage level" in the form of peep-sights, that make it much more speedy and accurate, and it is my purpose in this article to call attention to the instrument and its use, and to these new sights, which have not been described heretofore.

#### HOME-MADE LEVEL AND ITS USE.

Figure I will show the design of the home-made drainage level, and figure II will show its use. When a man wishes to determine the fall in a certain direction he sets up stakes 100 feet apart right across the field, or farm, as the case may be. He is then ready to begin taking levels. He takes the home-made level and places it between stakes O and 100, sinking the upright firmly into the ground as nearly perpendicular as possible about half way between the stakes and in line with them. He next makes the crosspiece horizontal by means of the spirit level and the thumb screws. Two men are required to do the "levelling." A to sight and B to hold the staff (or something similar) across the staff where directed.

The staff is first stood on the ground at stake O and A sights backward along the top of the level and directs B to place the target across the staff and raise or lower it until it is in line with the level, and when correct, B makes a note of the number of feet and inches the target is from the ground. When this is done B moves forward to stake 100 and stands the staff on the ground there and A, without moving the level, turns around and sights forward to the staff, directing B as before. When the target is just level with the instrument B again notes the reading.

In figure II the back reading was 4 ft. 10 in. and the foresight 4 ft. 1 in. In both cases the target was level with the instrument, consequently the difference in reading must be due to the rise in the ground, and therefore the amount of rise must be nine inches. The height of the instrument is immaterial—the difference between

the two readings will be the same no matter whether it is on high or on low ground.

When the rise or fall from stake O to stake 100 has been determined, the level is next placed about half way between stakes 100 and 300 and the rise or fall between them determined in the same way. The level is next set between stakes 200 and 300 and the same operation repeated, and so on over the whole course of the ditch.

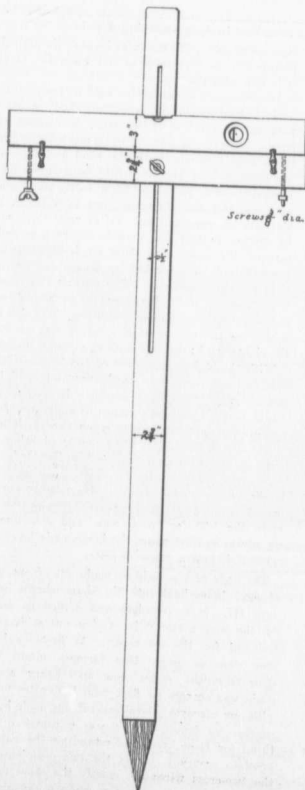


Fig. 1—A Home-made Drainage Level

When this is completed, all the rises or falls, as the case may be, may be added together, giving the total rise or fall. If there are both rises and falls along the same ditch, as frequently occurs, where a knoll or a hollow has to be crossed, the difference between the sum of the rises and the sum of the falls will give the net rise or fall. And when the net rise or fall is known and also the length of the drain, it is an easy matter to find the rise or fall per rod or per 100 feet. And when this is known one is in a position to decide whether he has fall enough for underdrainage.

#### THE REQUIRED GRADE.

Generally speaking about two inches in 100 feet is the lowest grade that should be used with small tiles. Larger ones may be laid on slower grades, for on the same grade water runs swifter in them than in smaller ones and will thus flush out sand more readily. For instance, the water in a 2-inch tile runs considerably more than twice as fast in a three-inch on the same grade. The fall in the ground surface, however, is not always a test of whether a man can underdrain, for he may put his drains deeper at the outlet than at the source and thus have more fall in the ditch bottom than on the surface. This we often find it necessary to do.

As in determining the rise or fall along a proposed ditch, there are numerous readings which a man cannot "carry in his head," it is necessary to have some little book in which to note them. We find it convenient to use the form shown in the following table, which gives the field notes on Drain No. 1 in a certain survey:

NOTES ON DRAIN NO. 1

Stake	Back Sight	Foreshot	Fall	Rise	Elevation
	Ft. In.	Ft. In.	Ft. In.	Ft. In.	Ft. In.
0	4 10	4 1			10
100	5 2	4 1	10	9	10
200	5 3	3 11	11	3	12
300	5 0	3 9	11	1	13
400	4 6	3 9	11	0	13
500	4 7	4 3	10	4	14
600	4 2	4 5	13	0	14
700	4 7	4 8	11	0	14
800	4 7	5 3	8	0	14
900	4 7	5 3	8	0	14

Note that in six out of the eight hundred feet sections there were rises, in the other two there were falls. The six rises total 4 feet 11 inches and the two falls total 11 inches, hence on the whole there was a rise from stake O to stake 800 of 4 feet 11 inches minus 11 inches, equalling 4 feet.

#### THE ELEVATION.

The last column, "Elevation," needs a word of explanation. In comparing the altitude of different towns, for instance, we use the sea-level as a datum plane, i.e., a level of comparison. Toronto Bay is 250 feet, the Agricultural College, 1,150 feet above the sea, from which we learn that the College is 900 feet above the bay. In surveying a ditch we cannot use the sea as a datum, for we do not know how much stake O is above the sea, hence we must choose an arbitrary datum. In the example given we have chosen it ten feet below the ground surface at stake O. Then the elevation of stake O above this chosen datum plane is 10 feet. Since there is a rise of 9 inches to stake 100 its elevation

would be 10 ft. 9 inches, and so on with all other stakes.

To find the fall from any one stake to any other, we have only to subtract the elevations as given in the last column. For instance, the rise from stake O to stake 800 is 14 ft. minus 10 ft., equaling 4 feet, the same as we obtained by subtracting the total falls from the total rises. This last column, while not absolutely essential, is the

simple set of sights that would overcome the difficulty and we have now succeeded. Fig. III shows a pair of them. The chief point to note is that each has a peep-hole and a cross-wire. When in use they are clamped on a spirit level, so that the peep-hole of one is opposite the cross-wire of the other. With these the line of sight is raised sufficiently above the level to avoid the error of refraction, and the most inexperienced can

necessary to have a set tested, and corrected if in error, before they could be relied on. Convinced, however, that the sights would be of great practical value to those wishing to do drainage work, I submitted the idea to a firm which has facilities for making the sights accurately and testing them, and they consented to make a small trial lot and, if the demand is sufficient, to make more and keep them in stock for sale.

As these sights must often be carried about in the pocket when not in use, and as the cross-wires are very fine and therefore frail, it was necessary to devise some simple means by which the latter might be protected. When not in use the two sights are clamped face to face by a small brass keeper. In this position the wires are absolutely protected and the sights may be conveniently carried in the pocket.

By actual test with a surveyor's level we know that this simple outfit, consisting of the cross, the spirit level and the sights, is accurate enough for practical purposes and that with it a man can readily decide whether he has fall enough for underdrainage. Moreover, he can determine the grade per 100 feet, and he can also use the same instrument in digging his drain true to grade.

### Fall Cultivation

A. C. Hallman, Waterloo Co., Ont.

There is a wide difference of opinion to what constitutes the best method of fall cultivation. No hard and fast rule can be laid down. Local conditions and previous cultivation have a great deal to do with it. We must, however, adhere to the old rule, "Whatever is worth doing, is worth doing well." In the hustle and bustle of a busy fall, especially in a late season, very often things are apt to be done in a slipshod manner on the cut and cover plan, taking little time to do things well, our effort being only to cover as many acres in a day as possible. We find no fault in how many acres are laid over in a day so long as it is done well.

Good, careful farmers have given their stubble land a light cultivation immediately after the crop

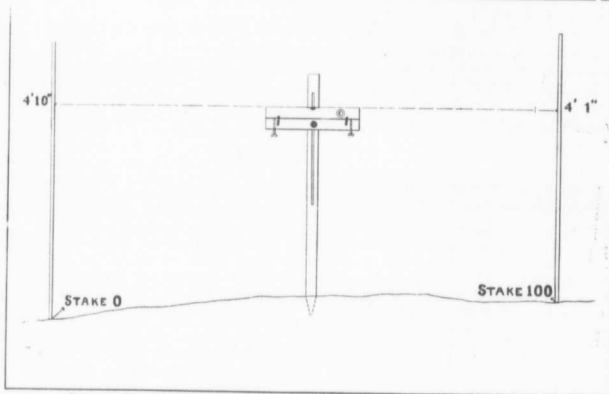


Fig. II—The Drainage Level in Use as Described in Accompanying Article

most convenient method of comparing any one station with any other. If starting our survey at the source instead of at the outlet we would choose for the elevation of the starting point some height greater than the total fall to the outlet.

#### SOME OF THE DIFFICULTIES.

But to return to our instrument. It is simple and the method of using it is simple, yet we find that many have difficulty in using it because: (1) They are not trained in sighting, and it is difficult to sight accurately along a straight edge; (2) On a warm day the sun beating down on the spirit level heats it, and it in turn heats the air, which is thus made less dense, "thinner" we would say, using a colloquial term, than the air beyond the ends of the level, so that the rays of light coming from the target to the eye are bent—refracted, to use the technical term—in passing from the dense air at the end of the "thin" air over the level, and consequently we see the target higher up than it really is and thus get a false reading.

We are all familiar with refraction, even the youngest schoolboy has put a stick in a pail of water, or maybe a pond, and wondered why the stick was "bent". The rays of light coming from the submerged part of the stick are refracted or bent in passing from the dense water to the dense air,

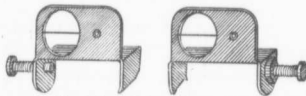


Fig. III—A Pair of Peep-sights

making the stick appear too high in the water. Similarly the light from the target in passing from the denser to the less dense air is refracted, giving a false reading. The trouble may be overcome in a measure by sighting along the corner of the level instead of over the top, but even then it is very difficult to eliminate the error entirely, and very hard on the eyes, both of which those who have tried to sight over a spirit level on a hot day know full well.

#### HOW DIFFICULTIES ARE OVERCOME.

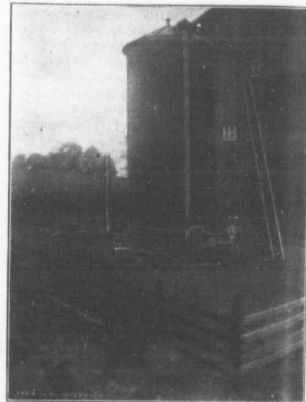
Since the home-made drainage level was first described we have been striving to devise a sim-

sight accurately with them, as looking through the peep-hole it is very easy to tell when the target is in line with the wire.

At this point it might be well to remark that a dark lead pencil or anything dark makes a poor target for use either with or without the sights. Something pure white is much better, and for a simple reason, both the level and the wire are dark in color and the white target gives more contrast and is therefore more easily seen, more accurate and easier on the eyes as well. A little strip of wood painted white, and which may be carried in the vest pocket, makes a splendid target. We make ours about six inches long and one-half inch wide for half its length and an inch wide for the remainder. The narrow end is used when sighting short distances, up to 50 feet, and the wide end for longer distances. We also cut a slot up the centre of the target for use with the sights, and note the reading through this slot.

With the sights, distances of 150 feet on either side of the level can be read accurately and if a wider target were used greater distances, still might be read, but here comes in another difficulty. One cannot be certain when the spirit level is absolutely level, for it has no graduations on the glass by which one can tell when the bubble is exactly centred. By frequently testing spirit levels with a surveyor's instrument over various distances we know they cannot be relied on for more than 50 feet each way, and consequently we advise against using the home-made level over greater distances than 50 feet.

The body of the sight is made out of one piece of sheet brass bent into the shape shown in Figure III. It is punched and drilled as required, the wire soldered in, and a nut soldered on one end for the set screw. At first we hoped they were so simple that farmers might have their tinmiths make them up. Every set we made was correct on first trial but, after testing with our surveyor's level several sets made by tinmiths, we found that it was a pretty difficult thing for them, not understanding the value of absolute accuracy, to get the two peep-holes and the two-cross wires all exactly the same height, and that a small variation made a considerable error in the readings, and that therefore it was



Filling Silo on Farm of W. E. Vail, Cowansville, Que.

Silo filling is almost completed in some sections of Ontario and Quebec, and is well under way in all other districts. The silo here shown is 30 x 14 feet. The engine used is seven horse power, portable. Mr. Vail may be seen standing at the cutter.

was removed, either with a disc harrow, gang plow or cultivator, to germinate weed seeds and retain moisture in the soil. In a dry season, probably the first mentioned is the best implement to do this work.

Good plowing, is the first step to good farming.

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In this much slippery work is done. Very often boys, or inexperienced men with very little knowledge and no interest in the work, are set to plowing and make a bad imitation of what careful farmers call good plowing.

In nearly all cases the skimmer should be used on the plow and in every case where land has



A Poorly Located Milk Stand

In spite of all that has been said about the importance of having milk stands located in places where the air will be fresh and pure, we continue to see large numbers of milk stands beside the barn yards. The one here shows an example. It is in Prince Edward Co., Ont. Possibly the banner dairy county collects near the stand and runs out almost under it, heavily sited.

not been previously cultivated. The depth has to be regulated by the depth of soil, which varies from five to seven inches. I call six inches a good average depth in most soils. Deeper plowing can be done in the fall than at any other time of the year.

Late plowing is preferable in most cases, provided that it is done before the soil freezes, but it is safer to start in time to get it done. The frost has a much better action on late plowed soil. No harrowing should be done. Leave it rough and open. Some practice early deep plowing and others surface cultivation. The objection is that it leaves the ground too firm, but a late, deep cultivation with a wide-toothed cultivator, has a very beneficial effect.

Corn ground, if kept clean, is all the better if not plowed, but cultivated the same as if a crop is still on the field. Where the land is weedy, it is better to plow it. Turnip ground is better to be plowed lightly. Where land is badly infested with blue grass, late, deep plowing, well skimmed, will give the seed a wonderful start over the grass in the spring.

### Danger in Pasturing Alfalfa

By Glendinning, Ontario Co., Ont.

In the issue of Farm and Dairy for Sept. 23rd, I was pleased to see the testimony of Mr. R. E. Birdsall, of Peterboro County, as to the value of alfalfa and to hear of his success in growing this most valuable of all forage plants. However, it is not always safe to tell the public of all the success we meet with. Mr. Birdsall's success in pasturing alfalfa will not, and cannot apply to the average farm of Ontario where alfalfa may be grown successfully under careful treatment. Mr. Birdsall does not tell us what kind of land he grew alfalfa upon that he pastured. I know something of the character of his farm, which is very rolling and some of it may be called hilly. On hillsides sloping to the south and east which are protected from the bitter north-west winds in the spring, alfalfa stands a fair chance of coming through safe. Then there are certain seasons that are much more favorable than others. Seasons that fall wheat and red clover come through without being winter killed are also favorable to alfalfa.

Fifty years ago it was a common practice in

this part of the country to pasture fall wheat that had made a good growth in the fall. All sorts of arguments were advanced in favor of the practice, and frequently good crops were obtained, but the practice has been abandoned.

There has been more alfalfa sown during the past two seasons than ever before in Canada. Good catches have been secured and there is a heavy growth this fall. My think it is a great waste to allow so much good feed to stand in the fields to be destroyed by the frost. They will accept with pleasure the advice of a veteran grower of alfalfa, like Mr. Birdsall, to pasture it, although they have not the same conditions on their farms.

If the writer had been advised 12 or 14 years ago not to pasture his alfalfa fields it would have been worth hundreds of dollars to him. I think it is unfortunate that Mr. Birdsall should have told the public at the present time his success in pasturing alfalfa, as many new beginners are apt to follow his advice. If next winter and spring are hard on fall wheat and new grass they may bid farewell to their alfalfa where pastured.

In 10 or 15 years from now when we hope that alfalfa will have become a common plant on most of the farms of this country, and we know more about it, a proper subject to discuss will be "The pasturing of alfalfa."

### Economy in Cow Feeding

C. F. Whitley, Department of Agriculture, Ottawa

Testing the milk production of your cows is the greatest means of economizing labor that has ever been devised. Many farmers say that they have not got time to test their cows. The fact is time is so important they cannot afford not to test. I venture to predict that if there is any farmer who does not weigh the milk of his cows he will find, if he commences to weigh their milk, that at least three cows out of twenty are being kept throughout the year at a loss. If by weighing the milk of his cows he can find these unprofitable cows he will be able to get rid of them with the result that he will make more money from his 17

fully so that the best cows can be discovered and the poorest ones weeded out.

In Denmark the farmers have increased the production of their cows through careful testing by 66 per cent. If our Ontario farmers will only test their cows in the same way we can add millions of dollars a year to our income from milk.

### Plowing by Steam Power

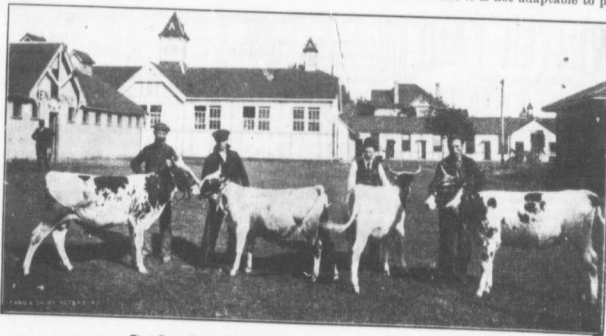
Steam plowing outfits have for years been a feature of western farming. In recent years, however, several of the larger and more enterprising farmers in the eastern provinces have resorted to steam plowing. One of the most noteworthy farms on which the steam plow is being used is Mr. Trethewey's farm at Weston, Ont. Mr. Trethewey is quite enthusiastic over the success of this method of plowing.

The cost of plowing with an eight furrow steam plow, as used by Mr. Trethewey, is 64 cents an acre. Where the acreage is small, say 300 acres per annum is to be plowed, Mr. Trethewey figures out the cost as follows:

Cost of plowing .....	\$192.00
Interest and sinking fund on \$2,900 ..	375.00
Repairs for one year .....	100.00
Total .....	667.00
Cost of plowing with horses at \$2 per acre (300 acres) .....	600.00

Mr. Trethewey writes concerning this plow: "The advantages of the power machine more than offset the difference in price. With the steam plow one can leave spring plowing until ready to seed, and thus get a good advantage over the weeds. This is important in all hoe crops, and saves a good deal in labor time. It makes no difference with the power machine how hard or baked the land becomes. On such ground it works even better than on soft land. The engine may be utilized for many purposes around the farm, such as for running the corn or hay cutters and when not working it eats nothing.

"It is true the power plow has its drawbacks. Some of these are that it is not adaptable to plow-



First Prize Herd of Four Ayrshire Calves at Western Fair, London

These calves were all sired by Queen's Messenger of Spring Hill, who is illustrated on the front cover of this issue, excepting Cashier, the bull calf on the left of the group, whose dam, Edith of Levenshoe, gave over eight months; she is said to be one of the best milking cows in Scotland. Cashier is intended for service upon Messenger's heifers.

cows that from the 20 now kept, and he will have three less cows to milk and feed throughout the year.

Some people seem to think that if they go in for cow testing they will have to buy pure bred cows. This is not the case. Cow testing is a means by which any farmer can find what his ordinary grade cows are earning for him. Breeding records that have been kept carefully, show that only one heifer in five turns out to be a good milker. This shows how necessary it is that the milk records of the cows shall be kept care-

fully so that the best cows can be discovered and the poorest ones weeded out. However, after employing this method of plowing for two years, I am fully convinced that the power plow is going to figure as a factor in our farming operations in the future, but it would appear that the power will not be steam. Electricity or gasoline must be the energy employed. When this is done I am of the opinion that real good results will be obtained."

Photos of farm buildings, farm houses and rural scenes are always welcome for publication.

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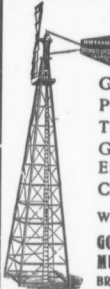
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DECEMBER 6 TO 10, 1909

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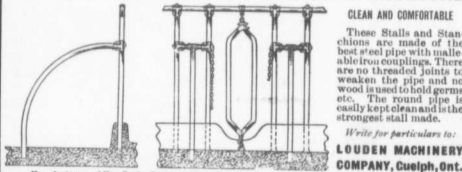
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Manufacturers of Hay Tools, Feed and Litter Carriers, Barn Door Hangers and Hardware Supplies.

It is desirable to mention the name of this publication when writing to advertisers

**The Securing of Better Markets**

(Continued from page 2)

for we can produce more than our requirements. When our government is so anxious to secure tariff favors in foreign countries, such as France, where we have perhaps sacrificed some agricultural interests in order to secure an advantage for Canada of \$5.00 on a binder, \$4.00 on a mower, \$2.00 on a rake and so on, feeling that splendid results have been accomplished, would it not pay us at the same time to give a little more consideration to the preservation of our home markets for our home produce? In this, we must 'Play Fair.'

I met a fruit grower last week who is very anxious to have an increase in the tariff on fruit and vegetables and very properly. When, however, I told him that the tariff on hay is \$2.00 coming into Canada and \$4.00 going to the United States and said that we should raise our tariff to \$3.00 anyway, if not \$4.00, he said, "Oh, no, I have to buy my hay and that might make it dearer." I replied that we could not hope to have a fair tariff on all we produced to sell and a low tariff on all we had to buy, and that we must "Play Fair With the Farmers" and give them equal consideration, and in fact "Play Fair with the manufacturers" as well. We must aim to bring agricultural products along the line up to their level, and in that way preserve our home market for our home producer to an equal extent along all lines, until we find neighbors who are willing to either trade free with us or trade more equitably with us on a more moderate tariff basis. If our farmers approve of this policy they should write to their parliamentary representatives to support their views.

**Plan to Revive Sheep Industry**

The revival of the sheep industry in Ontario, which has been steadily declining, is being attempted by the Department of Agriculture, aided by the Sheep Growers' Association. The method chosen is the establishment of illustration stations in eight counties of the province. One has been already begun by Mr. Wm. Little, near Agincourt, York County, for early lambs, which will be sold in the open market in Toronto. Another station is being arranged in Muskoka for summer lambs. Six more for wintered lambs will be started in Leeds, Simcoe, Huron, Middlesex, Brant and Victoria counties.

The need for some action is indicated by the fact that from 1901 to 1905 the number of sheep in the province decreased from 1,761,730 to 324,153, an average of 31,353 a year; and by last year had further fallen to 1,143,357.

In the first period the number slaughtered and sold fell from 729,148 to 603,736, and by last year was only 545,320.

The object of the work, which is being developed under the special supervision of Mr. A. P. Westervelt, is to show that there is a good profit in sheep raising to the ordinary farmer,

and with the ordinary grades of sheep. The farmers being chosen are not experts. They supply their own stock-grade ewes and keep account of the cost, the time spent, the revenue, etc., and for this labor are allowed a slight remuneration. The results of their experiments will be made known by the department on the expiration of their tests in 1912, which will allow for the produce of two full years. The sheep are first inspected so as to prevent any others than the ordinary grades being used. The farms will be open to anyone during this period, and information will be freely given by the farmer in charge.

**Specials for Horses at the  
Winter Fair**

Besides the regular prize money, amounting to over \$3,200, that is offered for horses at the coming Winter Fair at Guelph, a number of special prizes have been secured. These specials are as follows:

1. For three heaves draught colts, registered in one of the records of the Canadian National Records, foaled on or after January 1st, 1907, sired by one station and owned by the exhibitor, prize \$50.
2. For Clydesdale mare and two of her progeny, registered in the Can-

**Important Notice**

The special Brooders' Number of Farm and Dairy will be published December 2nd, not November 4th, as originally announced. By coming in December, it will come at a time of year when it will be of greater value and interest to the many live stock men who are readers of Farm and Dairy than were it published at an earlier date. Will our subscribers and advertisers please bear this in mind. Remember the date, December 2nd. Advertising copy should be here one week in advance.

adian Clydesdale Stud Book, (proprietor not necessarily owned by the exhibitor), prize \$25.00, cash or prop. Donated by the General Animals Insurance Company of Canada, J. D. Reesor, Manager, 38 Wellington St., East, Toronto.

3. For the best horse, male or female, shown by a resident of the County of Brant, prize \$15.00. Donated by the Brant County Council.

4. For best two Clydesdale fillies foaled on or after January 1st, 1907, owned by exhibitor and registered in the Canadian Clydesdale Stud Book. Prize Silver Cup, value \$50. Donated by the Canadian Two Colours.

There will be also two classes for delivery horses with outfits. One class will be for single light delivery outfit and the other for single heavy delivery outfit. Each exhibit competing in these classes must have been owned and in the actual use of the exhibitor for delivery purposes for at least three weeks immediately preceding December 6th.

**A Difference in Cows**

C. F. Whitley, Ottawa, Ont.  
From records being received at Ottawa, from members of cow testing associations, there is apparent a very marked variation in the earning power of the various cows in the same herd. There is every indication of many of last season's variations being repeated, such totals will show in many cases \$25 difference in income between two cows in the same herd. In some herds this is increased to \$40. In a herd of 17 cows, an eight year old cow gives 4200 lbs. milk and 180 lbs. fat more than a five year old in the same stable during

the same time. Placing a value of only 20 cents a lb on the butter, the one is then seen to earn over \$40 more than the other.

This is the important point to notice: There are hundreds of farmers in the Dominion in whose herds just such remarkable differences between cows can be seen, but the owners are probably unaware of the extent of such differences and will continue to be without the information so essential that was so kept, but the production of a record is kept on the production of each individual cow in the herd. Just a few minutes' figuring per month will add vastly to the interest of the dairy milk, besides providing a sure guide for rearing more profit per cow. The keeping of such records may have a special attraction for some younger member of the family.

I know of nothing that equals powdered alum as a remedy for cuts and wounds of all kinds on animals. It heals the wounds quickly. A sheep that was so badly worried by dogs that it thought it would not live, within a complete recovery after I applied powdered alum to its wounds. One of my horses recently received a deep wound of the hind leg, an inch long, on the inside of its hind leg. Powdered alum proved a satisfactory remedy.—W. H. Caldwell, Carleton Co., Ont.

Pure bred fowls, any standard variety, given away in return for new subscriptions to Farm and Dairy. See advt. on another page.

Keep all steers, dry cows and heifers in fields separate from the milk cows.

**The Taxation Question**

**Went Assessment Act Amended**

The campaign having for its object the securing of an amendment to the Ontario Assessment Act, which will give municipalities the power to tax improvement values at a lower rate than land values, is meeting with remarkable success. Already, largely through the work of the central Canada Citizen of Ottawa, the councils of about 170 township, village, town and city councils have passed resolutions favoring the amendment. They will join in approaching the Government to have the Act amended.

Individual petitions are being circulated for the signature of farmers and others. A petition form that is being circulated for private signature reads as follows:

The petition of the undersigned Municipal Voters of the Province of Ontario, sheweth that;

Whereas buildings and other improvements, are the products of individual industry, and are acknowledged by all to be beneficial to the community, and taxing them discourages their production, it is thus detrimental to the interests of the community;

And whereas land values are not the result of individual effort, but are the products of the community as a whole, and taxing them discourages holding land out of use for agriculture, and encourages putting it to productive uses, thus conducing to the prosperity of the community;

Therefore your Petitioners pray that your Honorable Body will amend the Assessment Act so that municipalities may tax improvement values at a lower rate than land values, and a difference in the rates, in every case, to be determined by the Municipality.

The petition forms are being sent out by L. B. Walling, 75 Yonge St., Toronto, Ontario, who would be glad to see the act thus amended are invited to secure and circulate these forms.

**FARM MANAGEMENT**

**Rations for Cows and Steers**

Give best ration for (1) milk cows, (2) fattening steer in winter? How often would you feed, and how much at a time each 24 hours?—O. S. G., Lenora, Ont.

(1). For a milk cow 1000 lbs. in weight, I would suggest as a good ration:—

Corn silage, 30 to 40 lbs.; oat straw (cut), 3 to 5 lbs.; clover hay (long), 5 to 8 lbs.

Meal mixture:—  
Bran, 500 lbs.; oil cake meal, 200 lbs.; oats, 100 lbs. One lb. a day for dry cows. One lb. daily for each 3 or 4 lbs. milk produced. Feed in two equal feeds, night and morning, in the day.

(2) For fattening steers I would suggest for first month or six weeks for a 1000 lb. steer:—

Corn ensilage or roots, 40 to 45 lbs.; oat straw, 3 to 5 lbs.; long hay, mixed or clover, 4 to 8 lbs.

Meal Mixture:—  
Bran, 400 lbs.; gluten, or oil cake, or barley or corn, 100 lbs. Four weeks no meal; 5th week, ¼ lb. of mixture per day; 6th week, 1 lb. per day.

Gradually increase meal at rate of ½ pound per steer per day every 2 weeks. Change meal by making it heavier, that is add more heavy meal to the 400 lbs. bran. Feed in two equal portions, night and morning.—  
J. H. G.

**Alders—Sea Weed**

1. Can you tell me any way to destroy alders? They are a greater evil than all the weeds known to me put together, but they seem to want to take charge in this part of the province. At the end of one time of the year better than another to cut them? What would you advise? Is it best to keep or remove them from the shore in the winter on the Bay of Fundy coast valuable as a fertilizer? Is it the kind of fertilizer to stay in the land or does it leave the land worse after a few years' use than when you began?—Albert Wetmore, Digby Co., N.S.

We know of no easy method of destroying alders. It is good practice in cases where you want to kill trees or shrubs, to cut them during a dry time in the summer when they are in full leaf.

Regarding kelp, I may say that it is a sort of general term here and might mean quite a variety of sea plants. Of the sea weeds that drift ashore on the Bay of Fundy, rock weed is the most valuable and kelp comes next; while eel grass, which probably comes ashore in the largest quantities, is of the least value. There is no reason why land should be exhausted by fertilizing with sea weed. It must be borne in mind, however, that in using sea weed alone you are supplying practically only one kind of fertilizer. When the land becomes depleted in other ingredients, it will, of course, be less productive. It is, therefore, necessary to bring in some other form of the fertilizing ingredients not contained in sea weed.—F. L. Fuller.

**Successful Cultivation**

Editor, Farm and Dairy,—I used the King cultivator last season on about 30 acres of land. It cleaned my ground almost entirely. I used the machine first with all the teeth. I went over the ground one way and crossed it the other way, not running too deep on the start, for sometimes the ground is hard. The more you go over the land the more satisfactory will your results be.

This cultivator does better work when the ground is dry. It brings the twich grass to the surface of the ground so that the sun can easily destroy it. This process should be kept

up until late in the fall, then put on the ribbers and these will expose the twich grass to the frost. In the spring, all that is necessary is to harrow and sow. The ground will be very easily worked after this process if a marriage license has been followed. On this 30 acres of land, I used no plow and I found this machine to be the best I have on the farm for ridding the ground of twich grass. When cutting the grain, cut it as closely as possible as it will give the cultivator a better opportunity for doing its work, as it will not be so apt to clog.—  
E. W. Booth, Carleton Co., Ont.

**Our Veterinary Adviser**

**FATALITY IN CATTLE** Several of our cattle have died with the following symptoms: High fever, grunting, noise when breathing, very dull, sometimes pale, red water. They die in a few hours. A post mortem reveals the gall bladder very full, the bladder inflamed and full of dark bloody urine. Should acetonite be given?—  
S. T. Halliburton Co., Ont.

Acetonite should not be given. The suddenness of death and the darkness of the blood indicates anthrax. This is a very fatal and incurable disease, and man is liable to contract it by holding post mortems, skinning, etc. It occurs in different forms, some of which do not show definite symptoms. There is no other disease that would be likely to cause so many deaths. The disease is caused by a Laecillus taken in the grass, usually on low lying land. You must have a veterinarian investigate this trouble as, if it be anthrax, all carcasses must be burned. It is a serious matter and I cannot venture a definite opinion from the symptoms given.

The Streetsville (Ont.) Fair was postponed from Sept. 29 to Oct. 25.

**Our Legal Adviser**

**MARRIAGE LICENSES**—kindly tell me if a marriage license has to be issued in the district where the marriage is to take place? If a man lives in one province and wants to marry in another province, what authorities entitled to issue such licenses?—S. N., Alberta.

In this province of Ontario a marriage cannot be solemnized unless openly proclaimed in the church attended by one of the parties, or in the church with which the clergyman performing the ceremony is connected, and where one of the parties has been resident for fifteen days, or unless a marriage license has been taken out. The marriage license can be taken out anywhere within the province, and authorized by the Lieutenant-Governor to issue the same. A marriage license so taken out can be used in any part of the province. We are not in a position to state definitely the law in this respect in other provinces than Ontario.

**A Neglected Duty**

If you have forgotten to renew your subscription to Farm and Dairy, our circulation department would appreciate the favor, if you would send in your remittance for renewal at once. The busy season is now about over, and farmers have more time to devote to reading and looking after small matters which have been neglected.

Look at the date on the label of your paper this week, and if your subscription has expired, send in your renewal subscription. Don't be behind the times. A prompt remittance will be appreciated. Renew today.

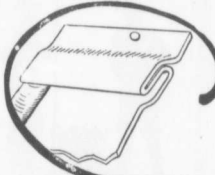
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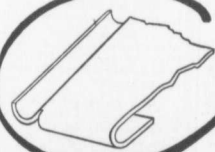
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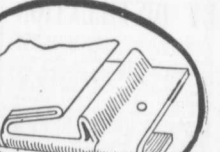
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We originated the Gale-proof, Closed-end side lock. We perfected the continuous interlocking, over-lapping, easy-fitting and invisible top lock.



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## HORTICULTURE

### About Apple Prices

Local prices have advanced materially during the past month although the prices reported from the export markets have not improved, states Chief McNeill of the Fruit Division, Ottawa, in his latest report. Growers have reported an advance of from 25 cents to 50 cents per barrel; choice varieties have advanced some more than this. A very large portion of the fruit, suitable for export or long distance market, left the growers at prices running from \$1 per barrel to \$1.50 per barrel on the tree. A comparatively small proportion, who have sold, delivered at the cars, report the price at \$1.75 to \$2.50 for winter varieties.

There are great fluctuations in the prices received by the apple growers. Speaking generally, where there are comparatively few apple grown or the orchards are small, the price is low. Seventy-five cents per barrel on the tree, even, has been accepted this year for good winter fruit, but this only in small orchards. In the neighborhood of large orchards and where orcharding is carried on as a business, the prices range higher. Prices also are much better in the neighborhood of co-operative associations than elsewhere, even to those who are not members of the association. Many sales have been reported by dealers who have stipulated for certain varieties, at prices running from \$2.75 to \$3.25 per barrel for No. 1 apples.

### Fall Spraying

The attention of State Zoologist Surface of Pennsylvania was recently called to some peach trees, badly infested with scale, which the correspondents treated as soon as the insects had gathered, being afraid that if the spraying were deferred until late in the season the trees would be beyond redemption. The writer al-

so inquired as to spray tanks, and suggested that while galvanized tanks are all right for lime-sulphur, the Bordeaux mixture will go right through them. He, also, wanted to know if either Paris green, or arsenate of lead, can be used in conjunction with sulphur. The following information, which was given by Professor Surface, will be of interest to all persons who practice spraying. "The thing to do at this time (before the trees are in leaf) is painting the growth that was made this year, with a very thick soap solution, or a thick boiled lime-sulphur wash, using either a paint brush or small brush, or a sprayer. Shortly after the leaves drop give them a thorough spraying with the boiled lime-sulphur wash and cut them back well, removing from one-half to two-thirds or more of the tops during the winter time, and in the spring, when the buds are swelling, give them another thorough spraying with boiled lime-sulphur wash. You can either buy the economical lime-sulphur, which is on the market, and dilute with eight times its bulk of water, or make your own by boiling 17 pounds of sulphur with 22 of lime, with sufficient water to well strain it and add enough water to make the total bulk 50 gallons.

"This will destroy disease germs and other insects besides San Jose scale, and it is the cheapest, most effective and least killing the scale, and least injurious to the trees of anything that you can possibly use. I have seen many orchards entirely reclaimed by this method. A year from next summer you will be selling fine peaches from these trees, if you will do this. Be sure to carry out directions fully and carefully, and next summer cultivate the trees from the early spring until the last of August. Also, give them some good food, as they will grow rapidly and will need something to help them. Remember that a tree infested with scale must be cut back very severely to save it.

"The painting at the present time is to kill the scale insects that will multiply so rapidly during the fall, and which may kill the trees before the winter if you will do this. A good paint brush is prompt action with it. Avoid oils on all kinds of peach trees, and do not undertake experimental work on trees that you value, but follow these directions with care and save them while you can.

"I regard the galvanized iron tanks as being the best all around tanks you can use. Bordeaux mixture should not go through them if enough lime is used to neutralize the acid effects. When Bordeaux eats into iron or any other metal it shows there is not enough lime used. At this writing we cannot say that self-boiled lime-sulphur is better than the Bordeaux. Of course, you refer to some Bordeaux as a summer spray to prevent diseases. Arsenate of lead can be used with lime-sulphur, but, as a rule, is not needed.

### Fruit Growers and Gardeners

Fruit growers and gardeners who wish to keep in touch with conditions in all parts of Canada, and with the latest ideas in cultural and marketing methods should subscribe to THE CANADIAN HORTICULTURIST. The October number of that publication contains much information of value. In the fruit department are discussed such questions as: Overcoming winter injury, propagating blackberries, apple grafting in Canada, packing apples, sulphur sprays, fruit marketing and marketing, and many others. Reports from correspondents in all provinces tell present conditions of fruit crops with a number of letters that give other fruit news and information are of much value. The

best recipes for preserving fruits of the season are given.

Seasonable work in the home garden is discussed by a number of authorities. Fall work with peonies, how to make a garden effective, making new lawns in fall, preserving bulbs and tuberous-rooted plants, growing squash, making greenhouses and other subjects of equal importance are dealt with. One article alone is worth the price of subscription for one year, and that is one that tells what to do in the garden this month.

THE CANADIAN HORTICULTURIST is the only paper in Canada that is devoted to the culture of fruits, flowers, and vegetables. It is a practical publication and is well illustrated. Every person who is interested in these things should become one of its subscribers. The small sum of 60c. is the subscription price for one year, and \$1.00 for two years. Address THE CANADIAN HORTICULTURIST, Peterboro, Ont., and mention Farm and Dairy.

### Fertilizers for Strawberries

From Bulletin of Oregon Experiment Station.

The amounts and kinds of fertilizers applied to strawberry fields, in a great measure, depend on what the past crops were, and also in what condition the ground was left. Good stable manure, well composted, is one of the best fertilizers that can be applied to strawberries. Address The manure with a large amount of straw mixed with it. Apply the manure before breaking the ground, so that it will be thoroughly incorporated into the soil during the preparation for setting the plants. It is sometimes advisable to apply a light coating of stable manure between the rows just before fruiting and work into the soil with a cultivator.

As barnyard manure cannot always be obtained in sufficient quantities, commercial fertilizers will have to be substituted. In fact, many growers prefer the latter, as it is easily applied, also will give quicker results.

Commercial fertilizers also have the advantage of being free from weed seeds.

A good fertilizer can be made by mixing together three parts of hardwood ashes to one of ground bone. Apply from one to two tons per acre, depending of course on the condition of the soil.

Nitrate of soda applied when the plants are in bloom has been found to be very good. This fertilizer is very soluble and results are obtained almost at once. The color and size of the plant is improved, and larger fruit is produced. Large applications however, have been found to decrease the shipping qualities of the fruit, as the berries become overgrown and soft. In applying nitrate of soda, one should be very careful not to leave particles adhering to the leaves, as it has a very caustic effect on green tissue. If small amounts are used, it can be sown broadcast and the plants brushed, to remove the particles, by dragging a light brush over them. Where large amounts are used it should be drilled in a few inches from the plants, and the soil cultivated frequently to prevent the nitrate from being carried to the surface and deposited where it will burn the plants.

The dry weather has effected the fruit crop but it will be fair. The drought cut the crop to fall off in uncultivated orchards. Cultivated orchards are looking well.—E. R. Lunn, Hants Co., N.S.

Fruit crops in the Columbia R.-V. Valley suffered from spring frosts and will be only about one-half a crop. This applies to all fruits. Prices are a little higher than the average.—R. B. Bruce, Wilmer, B.C.

The special Exhibition number of Farm and Dairy is gotten up in a bright and interesting style. The reading matter throughout is of a very high grade. J. Terrill, Northumberland Co., Ont.

## FALL TERM

AT  
BRITISH AMERICAN  
BUSINESS COLLEGE

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## THE UTILIZATION OF WOOD WASTE BY DISTILLATION

A general consideration of the NEW INDUSTRY, including a full description of the distilling apparatus used and the principle involved, also methods of chemical analysis and disposal of the products, first edition illustrated by seventy-four engravings, 16 pages. This book is cloth bound, it will be sent for any address post paid on receipt of \$1.25. The Farm, Home and Merchant needs a Saffron Tax-Free description of distilling apparatus; agents also sell apparatus \$38.50. A new distilling apparatus costs \$76.80.

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213 to 217 St. Clair Ave., Cleveland, Ohio



"John, you're just the man I want to talk to. You know I'm going to build a new barn. And I don't want to make any mistake about the roof. I had too much trouble with the old roof. I always need repairs. I guess there wasn't a year that didn't have a lot of spoiled hay or something, on account of those everlasting leaks. This time I want a roof that won't leak like a sieve, and that'll last awhile."

"Well, you can take it from me, Tom, Rex Flintkote is in every way the best roofing you or anybody else can get. After fifteen years my roof doesn't show a single sign any place of being any the worse for wear. Never cost me a solitary cent for repairs."

"Well, you've put it pretty strong, John. Now, what I want to know is why Rex Flintkote Roofing is best. You know there are two or three other roofs that are claimed to be the Best-in-the-World."

"Listen. You see Rex is made of long-fibre wood-felt. Now, wood-felt is something that lasts like eternity. Look how a good 'slouch' felt-hat wears—forever, almost. Then this hard-packed wood-felt is thoroughly saturated and impregnated with a special compound that protects against decay. Rain can't soak through that combination—the sun can't soften it—and it's proof against the action of the oxygen in the air, and all those things that so eat the life right out of other prepared roofings."

"That's good, John; now how about fire."

"Send for a free sample. Try it with a live coil of fire—prove for yourself that Rex Flintkote won't catch fire. Just write to the manufacturers. They'll also tell you a just what dealer to go to. And they'll send you free a mighty good book about roofing. Remember, look for the Bay trademark on every roll. Better write tonight. Tom, before you forget it. Here's the address:

J. A. & W. BIRD & CO., 19 India Street, Boston, Mass.  
Canadian Office: 23 Common Street, Montreal.



**POULTRY YARD**

**Egg Production Most Profitable**

*E. W. Kitchen, Simcoe Co., Ont.*  
Success in the poultry business, depends on the choice of fowls, whether for egg production, or catering for the table, or both. In the production of eggs, I find that the Leghorns are good and productive, but as a combination, not so good. They do not feed well in coops as they are of an unsettled disposition, and are small. The Minorcas lay large white eggs and are the choice of many but as a good utility breed, take the Barred Rock, the Wyandotte or Orpington. After some years' experience along these lines, I have found it a success not to have too many kinds and to stick to them.

From a farmer's standpoint it is better to raise only about 200 chickens. The hens will sit and raise their broods the cheapest. If the hens, say Rocks, are in a good healthy condition, they will cover 15 eggs comfortably. From experience you will soon be able to select the most suitable eggs. You may generally expect 12 out of 15 eggs to be good strong chickens. Set ten hens at one time and give the chicks from three to the other seven. These three hens will soon lay again. As an experiment, two years ago, I set four hens on 60 carefully selected eggs in May and each hen hatched every egg and raised every chick. By the middle of August, I cooped the cockles and fed them for 20 days, then fasted 22 hours, killed and dry dressed them and shipped to Toronto—37 birds averaging four pounds each, realising 12 cents. a lb.; 148 lbs. \$17.76. This was above my average results but shows what can be done.

**Hens Beat the Cows**

*Vincent M. Couch.*

In starting the poultry business it is easy enough to select a breed, but a more difficult matter to select individual merit. It is well known that every breed includes worthless specimens and poor strains, such as would be unprofitable even under the most favorable conditions. Therefore, care must be taken in the purchase of either eggs or stock.

As this more valuable stock comes into profit, a careful record of their eggs should be kept. It will pay to use trap nests, and in hatching, note which eggs produce the best and most vigorous and thrifty growing chickens, and which develop into the most desirable for both egg producing and breeding. By carefully studying all these characteristics, one will be better able to make a wise selection for future improvement.

The expense to a farmer in getting started with pure-bred poultry is so small as compared with that of cows, sheep and hogs, that there should be no hesitation in improving the flocks on account of the necessary cash outlay. Think, for instance, of an ordinary farmer keeping fifteen or twenty cows. He would think little about paying \$100 for a cow or bull to improve his herd; but when it comes to a sheep or hog; but when it comes to laying down even \$10 for eggs or stock of pure-bred poultry, he stops.

Consider, too, that to-day well-managed farm flocks of 200 or 300 hens are paying the owner more clear profit in dollars and cents than a great many

twenty-cow dairies. It seems that it is about time that more farmers woke up to these opportunities and invested a few dollars in good poultry.

**Poultry Specials**

The success of the poultry department of the Winter Fair has been due considerably to the large list of special prizes that is each year arranged to supplement the regular prize list. Last year the special prizes consisted of cash, silver cups, medals and goods with a value of over \$10,000. The specials are distributed so that all varieties have an opportunity of competing, but competition is open only to those exhibitors who make a donation to the special prize fund.

It is optional for each exhibitor to give whatever amount he wishes if his contribution is received by the secretary, A. P. Westervelt, Toronto, before October 15. After that date the amount must be at least \$2 in cash. All intending exhibitors should arrange for their contribution before the 15th inst., so that it can be included in the list for the coming show, which will be published and ready for distribution about the 10th of November.

**Green Bone vs. Dry Bone**

I want to feed ground bone to my hens this winter but cannot have them green. Can get any amount of boiled bones, that is from a soup pot, and would like to know how they compare with the green fresh bones?—W. A. Hants Co., N.S.

One of the first essentials in any feed is palatability. If the hens are fond of the feed they will eat more of it and as a rule give better returns. In this case, the hens prefer the green bone and for that reason the green bone should give better results. As for the analysis of the two, there is very little difference. Having been always told that the dry bone did not contain as much feeding value as the green and to having considerable of the dry to dispose of, I thought it would be wise to make a test. Mr. Hammond, assistant in the chemical department at Macdonald College, made the test. He took a number of green bones from a beef carcass and divided them into two lots. Each lot contained the same number of similar bones. One lot was ground green and analysed, the other lot was boiled for seven hours, then ground and analysed. The following was the result:

	Protein	Moisture	Mineral matters	Fat	Other organic matter
Green	27.00	10	39.56	19.98	3.46
Dry	29.00	53.89	6.30	3.44	

This shows that as the protein is concerned there is very little difference.—F. C. E.

**Trouble with Turkeys**

When my young turkeys were about two months old, a number of them had a swelling in their heads between the eyes and bills. The swelling was so large as to prevent them seeing to eat. Please tell me the cause, and a remedy.—J. R. Bruce Co., Ont.

Such a swelling may occur with different diseases. "Black head" is sometimes accompanied by a swelling as is also colds and roup. Just what it is one cannot say from the meagre description. Blackhead is incurable when at that stage, so it might be well to treat for roup. First, isolate all sick birds and move all birds to clean quarters and runs. Kill birds that are bad and dip the heads of these slightly affected in a 10 per cent. solution of potash and water. Swab out the mouth and throat also. If the trouble is growing, send a live bird to the Bacteriology Department, Macdonald College, Ste. Anne de Bellevue, Que., by either Canadian or Dominion express and Dr. Harrison will examine the bird. Prepay express charges.—F. C. E.



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# FARM AND DAIRY

## AND RURAL HOME

Published by The Rural Publishing Company, Limited.



FARM AND DAIRY is published every Thursday. It is the official organ of the British Columbia, Manitoba, Eastern and Western Ontario, and Bedford District, Quebec, Dairymen's Association, and of the Canadian Dairy, Agrarians, and Jersey Cattle Breeders' Associations.

**SUBSCRIPTION PRICE, \$1.00 a year, advance in advance.** Single Copies, 5¢ a year. For all countries, except Canada and Great Britain, add 50¢ for postage a year's subscription free for a club of two new subscribers.

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### CIRCULATION STATEMENT

The paid subscriptions to Farm and Dairy exceed 7000. The total circulation of each issue, including copies of the paper sent subscribers who are but slightly in arrears, and sample copies, was from \$2000 to \$2500 copies. No subscriptions are accepted at less than the regular rates. Thus our mailing lists do not contain any dead circulation.

Sworn detailed statements of the circulation of the paper, showing its distribution by countries and provinces, will be mailed free on request.

### OUR PROTECTIVE POLICY

We want the readers of Farm and Dairy to feel that they can deal with our advertisers with our assurance of our advertisers' reliability. We try to admit to our columns only the most reliable advertisers. Should any advertiser have cause to be dissatisfied with the treatment he receives from any of our advertisers, we will investigate the circumstances fully. Should we find reason to believe that any of our advertisers are unreliable, even in the slightest degree, we will discontinue the publication of their advertisements. Should the circumstances warrant, we will expose them through our columns as well. Thus we will not only protect our readers, but our reputable advertisers as well. All that is necessary to entitle an advertiser to the benefits of this Protective Policy is that you include in all your advertisements the words, "I saw your ad. in Farm and Dairy." Complaints should be sent to us as soon as possible. The only reason for dissatisfaction has been found.

## FARM AND DAIRY

### PETERBORO, ONT.

### GAMES OF CHANCE AT FAIRS

When the Ontario Department of Agriculture, some four years ago, undertook to stamp out the practice of allowing the operation of games of chance at fall exhibitions, its action met with general approval in spite of the fact that officers of a few individual societies were inclined to regret the loss of money derived from the sale of such privileges. At that time it was deemed advisable to make the law dealing with this matter more stringent so that it would reach the officers of societies who permitted the presence of games of chance on their exhibition grounds. The law as it stands to-day reads as follows:

"The officers of any such society shall prevent all immoral or indecent shows and all kinds of gambling and all games of chance, including wheels of fortune, dice games, pools, coin tables, draw lotteries, or other illegal games at the place of holding the exhibition or fair, or within three hundred yards thereof, and any as-

sociation or society permitting the same, shall forfeit all claim to any legislative grant during the year ensuing."

A further clause in the act restricts the officers of societies from even permitting such devices on the grounds, whether they are operated or not. In spite of all that has been said and published on this question, we find that the evil is again making its appearance at some of our fairs. The Ontario Department of Agriculture should see that the law is enforced. Not only should the operators of these games of chance be heavily fined, but the offending societies should lose their grants as the law provides. This would result in a tremendous howl from the sections affected, but the country at large expects that the Government will have sufficient backbone to deal with this matter without fear or favor. One or two lessons of this kind would be sufficient to make all the other societies in the Province doubly careful in keeping their exhibitions free from undesirable elements of this nature.

### THE POSITION OF THE FARMER

The farmer is said to be the most independent of men. This is true in so far as securing the necessities of life to make a living is concerned. He is not at the beck and call of the public. Is he getting the full share of what is due to him, considering the amount of capital invested and the labor and thought put into the business? Another question: Is he taking upon himself the full responsibility of citizenship that the country expects him to assume? Judging by the number of farmers who represent us in our Local Legislatures and the Dominion Parliament we must come to the conclusion that he is not. There is something wrong. Is it that he is incapable?

When the farmer is placed along side of the professional man in the township or county councils, the school board, or the directorate of our agricultural societies, we find him their equal in transacting the business in connection with these different public institutions. We often find him backward about being the first to express himself. Not that he does not know, or is incapable of putting his thoughts before the public in a clear and intelligent manner, but rather from shyness brought about by his isolated life on the farm, or account of not coming more frequently in contact with the public and of little practice in expressing his thoughts before the public, he is often reticent.

It is the duty of the farmer to himself, to his fellow-farmers and to the public, that he should educate himself along those lines so as to fit and take upon himself the full responsibility of citizenship. This can be accomplished by meeting together and discussing the various problems and interests of our occupation and country in farmers' clubs, granges, institutes or other public meetings.

There is no man so well qualified to represent the farming community in our Legislatures or Parliament as a bright, clear headed, intelligent far-

mer, no matter which political party he may be allied with. It is human nature for men to look after the business they are most interested in. Whether a farmer, who is a representative, may call himself a Grit or Tory, he will be sure to look after those affairs that are the common interest of the farming community.

### AN UNFAIR PRINCIPLE

Farm and Dairy believes that all farm improvements should be exempt from taxation. A farmer recently took exception to this principle. He claimed that as a general rule, the farmers who have fine barns and buildings have the most money, and, therefore, they should be taxed more heavily than farmers in less prosperous circumstances.

There are two fundamentally weak points in this objection. What would be thought of the village storekeeper if he told Mr. A. that he was going to charge him seven cents a pound for sugar while he charged Mr. B. only five cents, because Mr. A. was better off and therefore could afford to pay the increased price? Of course, no one would permit of such discrimination. Yet that is what we are told we should do by law in regard to the payment of taxes.

It is unsafe to conclude that because a man has a fine building he is better off than a neighbor who has neglected to improve his home and his farm. The former may have a mortgage on his fine building and his neighbor may hold the mortgage.

In Alberta, all improvements are exempt from taxation. The local municipalities have the power to impose taxes on farm improvements if they so desire. None have done so.

An agitation is under way in Ontario, which seeks an amendment in the assessment act which will give municipalities, the power to tax improvement values at a lower rate than land values. Over 150 municipalities have passed resolutions favoring this amendment. Petitions are being circulated among farmers for signature. This is the right way to secure the desired amendment.

### ILL-HEALTH IN THE COUNTRY

A writer in one of the large city dailies recently referred to the great amount of ill-health encountered in the country. He said: "Everywhere one finds men and women who are broken in health early in life, and the usual cause given, is over-work." The opinion is held in the towns and cities that the country is above everything else the place of good health. City invalids are ordered to the country to recuperate. The simple fact is that unless the health is cared for in the country, breakdowns will occur just the same as anywhere else. Many country people work too hard, and suffer from it, but many more suffer from neglect of the simple rules of health. Unsanitary conditions are just as disastrous in the country as elsewhere. The writer quoted is in a large measure correct in his statement. Too many persist in living and sleeping in unventilated houses,

and because many people regard "doctoring" as a sign of weakness, obvious symptoms are neglected until ailments have a firm hold and then the breakdown occurs.

A more general use of modern conveniences and labor-saving devices, some of which cost us little compared with the results they give, would do much to better the conditions noted.

Reducing the cost of production is the way to make any business profitable. It is no longer profitable for a high priced man to follow a team with a single furrowed plow. The same man can do double the work with three or four horses that he can do with the single plow. The double furrowed riding plows that are now manufactured give excellent satisfaction. As good work can be done with them as with the single furrowed plow. Larger implements, heavier horses and larger fields are factors that lead to greater profits on the farm.

How farmers can reconcile themselves to leaving such complicated machinery as Linders exposed to the weather after they have finished harvesting is hard to comprehend. Were manufacturers so careless of their machinery as indications would lead one to suppose many farmers to be they would shortly be driven out of business. The period of usefulness of a binder is short enough at the best of times, but it can be prolonged materially when the binder is given proper care and shelter.

### Off Flavored Cheese

A number of complaints have of late been made regarding the inferior quality of cheese received in Montreal from factorymen, reports the Trade Bulletin. The trouble has invariably been traced to farmers who in many instances have allowed their milk to stand in the stable all night to absorb the stench arising from the manure of the animals, whilst in other cases the milk has been diluted with water. But through the good work of government inspectors, the guilty ones are being discovered and punished; a number having been fined pretty heavily.

One of the more recent cases was that of a farmer who had been suspected of tampering with his milk before taking it to the factory. The government inspector dropped round at the farm in question quite casually, and tested the milk and found it up to the standard. He then went to the factory and awaited the delivery of this same milk, and submitted it to a further test when to his astonishment he found that no less than 20 per cent. of water had been added thereto. This case was brought before the Court and the farmer was fined \$50.

In quite a number of such frauds the losses have fallen upon the factoryman who has had his cheese cut one cent to one and a half cent, or two cents a pound, for being off flavor, or from some other defect over which he had no control. The government inspectors are to be commended for the manner in which they are stamping out these fraudulent practices.

**Creamery Department**

Butter Makers are invited to send communications to this department, to ask questions on matters relating to butter making and to suggest subjects for discussion. Address your letters to the Creamery Department.

**The Cleanest of Dairies**

Milk from the Brookside farms retails in New York City at 20c. a quart and the cream at 72c. a quart as compared with 8c. for milk and 40c. for cream of ordinary grades. The Brookside Dairy is owned and managed by Mr. S. L. Stewart, Newburg, located about 60 miles from New York, on the western shore of the Hudson. This dairy is the only one in the world that is producing an absolutely pure milk, the bacterial count of the marvelously pure milk as produced on this farm in the year 1908 was less than 165 per cubic centimeter (about half a teaspoonful). The remarkable purity of this milk is apparent at a glance when it is known that the bacterial count of milk produced at the average farm dairy is from 1,000,000 to 5,000,000 per cubic centimeter. The milk that is classed as "Certified" milk by the medical commissions in the large cities and which is ordinarily considered very pure may contain as many as 30,000 bacteria per cubic centimeter and will pass as "Certified."

As further evidence of the exceptional purity of Brookside milk, it is recorded by the milk commission of the Medical Society of the county of New York that on Feb. 3, 1908, a quart bottle of Brookside milk bottled on Jan. 28th was opened and the contents partly used. The bottle was then recapped and left standing all day on a desk in a warm room. It was then put in a refrigerator and again opened on Feb. 17, or 20 days after it was bottled, and the contents were found to be still perfectly sweet. On another occasion, Mr. Stewart, the proprietor of the farm, placed a bottle of this milk in a refrigerator and it remained there 43 days. This absolutely clean milk is simply the result of infinite painstaking and watchfulness as will be seen from the following brief description of Mr. Stewart's methods and work.

The cow barn as may be concluded from the illustration on this page is highly sanitary. Since the fight against bacteria is really a fight against dust, everything is eliminated about Brookside dairy that can afford a resting place for or tend to create dust. Every three weeks all the long hair on the cows' udders and flanks is clipped short, as it would afford a carrier for dust. Plaster shavings are used for bedding instead of straw. In dry weather if much dust is being blown about outside the barn, the ground for some distance around is sprinkled.

**PREPARATIONS FOR MILKING.**

Twice daily the following operations are gone through with in grooming the cows before milking, the first beginning at 3 a.m. and the second at 2 p.m. These operations require an hour and a half morning and night with ten men to perform them. First, each cow is curried and brushed; second, all soiled spots are washed off each animal with a 2 per cent. solution of disinfectant; third, each cow is dampened all over with pure water; fourth, each animal's tail is washed with a disinfectant solution; fifth, each cow's udder is washed with pure water; sixth, all udders are washed with a mild disinfectant; seventh, udders are re-washed with sterilized water; eighth, each cow's udder is dried with a clean, sterilized towel for each animal. Following this all the doors and windows of the barn are closed tight and the walls, ceiling and everything inside is thoroughly sprayed with a hose, so as to make it utterly impossible for a single particle of dust to be floating about.

**THE MILKERS AND MILKING.**

The milkers then retire to the dairy building where all hands and faces are given a thorough washing after which they don white duck suits and caps which have been washed and sterilized since last used. The milkers are also required to bathe thoroughly every day, a shower bath for that purpose being provided as part of the plant equipment. The fore-milk of each cow is drawn into a separate receptacle and set aside, as it has been found that the fore-milk frequently contains bacteria which has entered the teats from the outside air. Within seven minutes after each cow is milked her milk has been cooled to about 35 degrees and bottled inside of the dairy building.



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VANCOUVER

Professor Bailey, of Cornell University, on visiting the Brookside dairy, described briefly and most pointedly the methods of Mr. Stewart when he stated that he was simply applying "surgical cleanliness to dairying." Anyone who has been in a hospital or surgeons operating room, will readily appreciate what that means. When asked if all the little precautions he takes, are absolutely necessary, Mr. Stewart replied, "Never has one of these details been neglected, but that a big increase has immediately shown itself in the bacterial count in the milk."

average results, that a man likes to have made will never detect the poorest cow or give due credit to the best cow. There must be testing of individual samples.—C.F.W.

Be on such good terms with your cows that when they see you they will always welcome you. Have them so that you will be able to go up to them and handle them in the field.

Don't put off seeing your friends and getting a club of subscriptions to Farm and Dairy.

**Ten Years Late**

The experience of one member of a cow testing association in showing the necessity of testing as well as weighing milk. His principal income is from selling cream, so that his astonishment may be guessed when he finds this year that the milk from a 12-year-old cow, that he raised on his farm and fondly imagined one of his best cows, has never yielded more than 2.0 per cent. of fat. The discovery comes somewhat late to a man who has been harboring a cow that for a productive period of ten long years has been masquerading as an animal producing fairly rich milk.

The cow never gives this information concerning herself voluntarily; it has to be sought for and ascertained by definite and regular sampling. All real improvement of dairy herds includes systematic weighing and sampling of the milk from each cow in the herd. All the herd tests, simply

Warranted to Give Satisfaction.

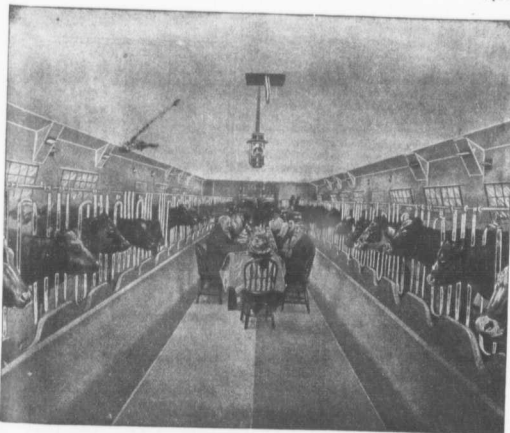
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As a Remedy for Rheumatism, Gombault's Caustic Balsam, is Invaluable. Every bottle of Gombault's Balsam is warranted to give satisfaction. 75c. and 50c. per bottle. Sold by druggists. Price \$1.50 per dozen, charges paid, with full directions for its use. 12 weeks for descriptive circulars, testimonials, etc. Address: The Lawrence-Williams Co., Toronto, Ont.



A Dairy Barn that is as Clean as it is Possible to Make it

A visitor at Brookside Farm once remarked that the barn was clean enough to eat in, whereupon Mr. Stewart, acting upon the suggestion, gave a luncheon, as shown in the above picture, to a number of Newburg's physicians, ministers, school teachers and professional people. Read accompanying article.

## Cheese Department

Makers are invited to send contributions to this department, to ask questions on matters relating to cheesemaking and to suggest subjects for discussion. Address your letters to The Cheese Maker's Department.

### Ontario's Cheese and Butter Industry

In a report issued by the director of dairying in the Ontario Department of Agriculture, Mr. G. A. Putnam, of the cheese industry of the province is placed at \$13,106,919.95. This was the value of 120,624,436 pounds of cheese manufactured during the season of 1902. This was produced from 1,661,032,731 pounds of milk. The creameries of the province manufactured 9,895,109 pounds of butter with a cash value of \$2,355,170.34. During the present season there are 1,177 cheese factories and 97 creameries in operation in the province.

"The provincial department of agriculture," says the report, "is spending a good deal of money in the interest of dairy education and instruction, and is encouraged in this work by the response on the part of the producers and factorymen in keeping their premises in an up-to-date sanitary condition and in handling the milk in a cleanly, careful manner. Greater efforts than ever are being put forth by the producers to increase the average production of their dairy cows. A good deal of pure bred blood is being introduced throughout the province and a number of farmers are using the weight scales and Babcock test as a means to assist them in weeding out unprofitable animals."

### Cheese Situation in England

W. A. McKinnon, Trade Commissioner, Birmingham.

The annual review issued by Messrs. W. Weddell & Co., of London, England, states: "It is very satisfactory to note the continuing improvement in the quality of colonial cheese, which in the case of Canada, is attributed to the cool curing method; this is stated to have not only improved the keeping quality of Canadian cheese but to have benefited its flavor which has become milder. Warning is however given lest it be allowed to become insipid. Paraffin-coating is pronounced not yet a perfect success, but it is added, 'with further experience the process will doubtless be much improved.'"

Canadian arrivals since May 1, this year, show 'the greatest improvement in richness, in flavor, in texture, and appearance of any year on record.' By way of comparison it is stated that New Zealand, though also improving, has yet more to do. The general quality reaches the high standard of Canadian."

### MORE CHEESE EXPECTED.

The excellent condition of the pastures since May all over the United Kingdom will conduce to a make of cheese, fully equal to, if not more than that of last year. Canadian and Dutch supplies are not expected to

show any increase over last year. The prospects in New Zealand, however, favor a continuance of the steady increase maintained during the past few years.

### LOWER BASIS OF PRICES.

A wide and careful survey of all the sources of supply at the present date leads to the conclusion that, in the coming winter, butter and cheese will be on a rather lower basis of prices than last year. The survey, especially in the United States, indicates that this will be so for butter, if Australian exports come up to present expectations.

### Makers Should Stick Together

Editor Farm and Dairy.—I am strongly in favor of doing something to improve the position of the cheesemaker. The present situation is a perilous one, especially in regard to the maker guaranteeing every pound of cheese that leaves the factory. Such an undertaking means that the maker guarantees the fitness of the market. If the market drops and the cheese have been purchased at from  $\frac{3}{4}$  to  $\frac{1}{2}$  c. lb. more than the buyer thinks he can stand for, what is the outcome? The farmer receives his full amount, the manufacturer receives his full amount, but the cheesemaker, who only receives a scanty salary, at best, has to make up the deficiency out of his own pockets. In this kind, the cheese are all right in quality. I, therefore, think these makers should form some kind of an organization or union, and stand up for their rights. There should be more unity and less rivalry existing between neighboring cheese makers. If this were the case they would gain a little control of the situation.

The suggestion to grant certificates to makers is, I think, capital idea. Competent makers are to-day held down in wages by the incompetent ones. I think, however, there is no other method of equalizing an association or union in bringing about the necessary improvement, speedily.—E. E. Campbell, Leeds Co., Ont.

### Co-operation

"There is no business in the country that requires more co-operation than cheesemaking. We must have for their rights. There should be more unity and less rivalry existing between neighboring cheese makers. If this were the case they would gain a little control of the situation. The suggestion to grant certificates to makers is, I think, capital idea. Competent makers are to-day held down in wages by the incompetent ones. I think, however, there is no other method of equalizing an association or union in bringing about the necessary improvement, speedily.—E. E. Campbell, Leeds Co., Ont."

"A mistake in the cheesemaker's work might cause him his month's salary. A holiday for him would be a good thing, but he would have to give up his boss for one or two days. In view of the close application that the cheesemaker must give his business, a holiday for him would not be out of place. Farmers would give it their sympathy. Personally," said Mr. Pumbath, "I would like to see a special day set for cheesemakers over the whole of Ontario to have as a holiday."

Canadians have made few mistakes in the management of their cheese industry in the past and I feel sure when they see anything that is likely to have a detrimental effect on it they will not delay doing their best to prevent it.—Geo. H. Barr, Assistant Dairy Commissioner, Ottawa.

I have been taking Farm and Dairy for eight years and would not be without it. Enclosed find my renewal.—Jas. Moffatt, Pontiac Co., Que.

### How to Build a Telephone Line

(Continued from last week.)

The poles are now ready to set. By means of pike poles they will be readily raised with the use of not more than three men, unless the poles should be unusually heavy. When in holes, the poles should be properly faced and lined up before the earth is tamped into the hole. On country lines, cross arms on the adjacent poles should face oppositely. This is done so that if for any reason the wires are broken or have to be cut the wires will be under the strain of pulling of any arms. The two poles on each side of a corner should face the corner, or at the end of the line the last two poles should face the end. That is, the cross arms should be on the side next to the corner or end.

Every pole that is on a curve, or end of the line, must be strongly guyed. The size of the guy wire depends upon the amount of load that is to be held. When there are but one or two wires to be held, a No. 6 steel wire will hold well. For lines carrying more than two to ten wires, and which will likely never have any more, use a stranded steel guy 5-16 inch in diameter.

For ordinary side guying, the guy should be attached to the pole as nearly as possible to the centre of the stress. Two or three wraps should be taken round the pole, and the end should be fastened to the pole by means of a guy clamp. Do not fasten the guy clamp closer than one foot from the pole. In places where there is a heavy strain, the pole should be covered with sheet iron or pole shins before attaching the guy, to prevent cutting into the wood. When possible place the anchor as far from the base of the pole as the distance from the base to the point of attachment of the guy wire. There will be many cases where this distance will have to be reduced a half, or even three quarters, of the distance. For a guy anchor use a piece of telephone pole, or other timber of same cross section, from two to five feet long. The length depends upon the pull it will be required to resist. This anchor should be buried from four to six feet deep (the same depth as the pole to be guyed). Before burying the anchor, drill a  $\frac{3}{4}$  inch hole through the middle of the anchor through this pass a  $\frac{1}{2}$  inch guy rod. One end of the rod is threaded for one end. This end passes through the anchor, is slipped through a broad wash, and fastened by nuts of the nut. The other end of the rod is provided with an eye for the receipt of the guy wire. These guy rods are usually made six feet in length.

Sometimes it is impossible to place a guy on a line at a curve, and in such case it is likely that a brace may do it. The brace is placed on the same side of the line as the anchor is a short piece of pole. One end is in a hole about three feet deep, and rests on two pieces of two-inch plank about a foot wide and two feet long. These planks are nailed together crosswise and placed in the bottom of the hole. This arrangement is a very substantial foundation for the brace. The other end of the brace is cut down on the side until it makes a good bearing against the flattened surface of the pole. The brace is then bolted to the pole by two lag bolts,  $\frac{3}{8}$  c. The bracing of poles is not to be recommended except when unavoidable, and it is not a very satisfactory method.

There are some occasions where it is not possible to run a guy straight to the anchor. For instance, at street intersections, if the guy ran across the street to the anchor, it would interfere with the passage of traffic. In this case a short pole or stub is placed just across the road. The guy is then run to the stub and another

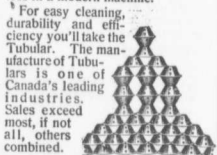
## 1 Piece or 60?



You can get a modern cream separator—a Sharple's Dairy Tubular—with nothing in the box except the piece shown here on the thumb.

Or you can get an out-of-date separator with 40 to 60 disks in the bowl, as shown below; or one filled with other contrivances—all needless in a modern machine.

For easy cleaning, durability and efficiency you'll take the Tubular. The manufacture of Tubulars is one of Canada's leading industries. Sales exceed most, if not all, others combined.



Write for catalogue No. 253  
29 Yrs  
THE SHARPLE'S SEPARATOR CO.  
Toronto, Ont. Winnipeg, Man.

is run from the stub to the anchor in the ordinary way.

On long loads of wire, about every quarter of a mile, there should be a front and back guy. These guys are run from the top of a pole both ahead and back to the next poles, being attached to these poles about eight feet from the ground. These guys are to prevent the poles from putting over an case an accident should break all the wires in the lead. These guys are called head guys. When the lead runs down hill, guy pole at the top of the hill back to the next one, and also, if a heavy lead, it should be side guyed. Every pole should be guyed before any line wires are strung.

(Continued next week.)

Have salt always accessible to the cows.

## 22,000 MILES

of New Railway Construction in Canada

Central Business College now under construction in Canada and U.S. Just this week the completion of becoming a \$10,000,000 man in some great railway company. You can see these thousands have, by starting as a telegraph operator. We can make you competent in a short time. Write for particulars. Central Telegraph School, Toronto, Canada.

W. H. SHAW, Principal

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TWO CENTS A WORD CASH WITH ORDER

FOR SALE—Warmstern cheese and butter factory, township of Dunsmuir, Peterboro County.—David Taylor, Warsaw, Ont.

WANTED.—Cheesemakers and dairymen to represent us during the fall and winter months, on full or part time. Liberal terms weekly. You can get best selling time. Stone & Walling, Central Foundry Nurseries, Toronto, Ont.

CHEESEMAKERS—Can secure good winter employment by working for Farm and Dairy. If you mean business check up. Dairy. If you mean business weekly write for full particulars to Central Cheesemaker, Farm and Dairy, Peterboro, Ont.

## Black Watch

Black Plug

The Cheiving Tobacco of Quality.





"DIFFICULTIES may surround our path; but if the difficulties be not in ourselves, they may generally be overcome."

## Peter of the Lane

By L. M. Montgomery  
(Concluded from last week.)

FOR a moment the judge looked as though he meant to refuse; then he stooped down and Peter gave him a hearty smack.

"Do you know," he said reflectively, "there are times when it almost seems to me that you don't like Averil. I suppose it's a ridiculous idea, but it does seem so at times."

"How can I either like or dislike her when I've never seen her?" said the judge coldly.

"Well, that's what I say to myself when the idea comes to me," agreed Peter. "Of course, it's nonsense. Nobody could help liking Averil."

"Do you like her better than anyone else in the world?" asked the judge. An older listener might have detected a wistful note in his voice.

"Course I do. Then Aunt Mary Ellen, and then you."

"So I must be content with the third place," said the judge bitterly. The judge did not like third place or second place. He wanted to be first—he had always wanted it with ardent love. Peter divined that the old man was hurt by his answer.

"He slipped his hand into his pocket. 'You know, I think an awful lot of you,' he said, looking up with his eyes winsome smile. 'I believe I'd like you better than Peter or Mary Ellen if it wasn't my duty to like her best. But you can see it's my duty because she's bringing me up and she isn't very well, though not so poor as she was before Cousin Mr. Merrison died. It's very good of her to take so much trouble with me, and I'm bound to like her second best. But I do wish she'd stick to the one way of punishing me when I'm bad. She thinks out so many different ways, I never know what to expect.'"

"I've you had very often?" queried the judge with a wrinkle.

"Quite often," said Peter candidly. "Aunt Mary Ellen says I'm awful stubborn. Aunt Mary Ellen is stubborn, of course, there's bound to be trouble when we don't have the same opinion. But I tell you Aunt Mary Ellen is a fine woman—a very fine woman."

One morning it rained so hard that the judge could not walk in the lane. When it cleared up in the afternoon he sallied forth, but no Peter was to be seen.

The judge walked up and down the lane for some time; the winds were down in the brown house, and there was no sign of life about it except Peter's kitten basking contentedly on the platform of the new pump. Finally the judge whistled. He whistled several times without result, and was just turning away in disappointment when—something—crept

lucantly through the gap in the fence. The judge nearly whistled again in amazement. "What was that? Who was it? It had Peter's head and face certainly, but below head and neck was a blue-checked gingham dress and girl's pinafore."

"Peter, is this you?" demanded the astonished judge.

Peter red as a beet, nodded miserably, tried to thrust his hands into his pockets and failed, because there were no pockets.

"What has happened?"

"Aunt Mary Ellen and I had a difference of opinion this morning," explained Peter in anguish. "It was about that porridge. I had porridge but Aunt Mary Ellen says I've got to eat it or I'll never amount to anything. She won't give me anything else till I've finished a whole plate of porridge, and there's always so much of it that then I'm not hungry for anything more. This morning I said there were sausages, and I didn't want to be filled so full with porridge that there wouldn't be any room for sausages. Aunt Mary Ellen was very angry, and she punished me by dressing me in some girl's clothes that belonged to a niece of hers that visited last summer. It's a brand new punishment, and it's the worst yet. Just when I thought I'd done my duty, Aunt Mary Ellen went away this afternoon, and when she was gone I hunted for my own clothes, but she'd locked them up. I was so ashamed that I thought I couldn't come to you when I was punished; but then I thought you whistled to me, because I told you I'd always come when I heard you whistle. So I'm here," concluded Peter, hanging his head dejectedly like one disgraced forever.

The judge looked indignant. "Come right over to Elmerott with me," he said peremptorily.

Peter looked scandalized.

"Not like this," he protested.

"Nobody will see you like that except my housekeeper, and she won't see you like that long. It's a shame. Come, I say. There are clothes here ought to be some—some boy's clothes in my house somewhere. We'll see what can be done."

Peter would have gone anywhere with anyone in the hope of getting rid of the shameful feminine garments. Mrs. Moody was presently amazed at the tableau which met her eyes.

"Mrs. Moody," said the judge sternly, "take this boy and see if you can find suitable clothes for him."

When Mrs. Moody brought Peter back the latter held his head erect once more, but the judge looked sud-

denly away from him with a peculiar expression on his grim face. An old memory, once sweet, now bitter, self same velvet suit and lace collar long ago. That boy had not looked like the yellow-haired Peter—he had been dark and black-eyed, like the judge himself.

"I feel lots better," announced Peter, "but I'd like to know how you came to have a suit of clothes that fit me. Did you ever have a little boy?"

"Yes—once."

"What became of him, then?" asked Peter, picking out a very comfortable chair and depositing himself in it. In his velvet and lace, with his fair curls and rosy face, he made a bright spot in the dim, stately room. He was as much at home there and fitted as harmoniously into his surroundings as if he had been on the old boulder in the lane. The judge noticed this and felt a certain satisfaction in it.

"He grew up and broke my heart," said the latter grimly.

"How did he break your heart?"

"Listen, I will tell you," said the judge, as if he were talking to a person of his own age. "I had one son. I idolized him and lavished everything on him. I never denied him a wish. I had great hopes—great ambitions for him. He repaid me with ingratitude and disobedience. He fell

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Aunt Mary Ellen would speak. Maybe she'd think such a good aunt as her I didn't need a grandfather. But she says I'm a terrible responsibility, so perhaps she'll be glad to get clear of me."

"I'll have a talk with your aunt about it some of these days," said the judge, looking at Peter with affectionate pride.

But the judge's plans were upset—not by Aunt Mary Ellen, but by Peter himself. The next day Peter sat on the boulder and looked disapprovingly at the judge.

"What is the matter?" inquired the latter anxiously. Peter's good opinion had come to be very precious to him.

"Matter enough," Peter's eyes and voice were reproachful. "I think you might have told me that Averil was your granddaughter."

"Who told you?" asked the judge angrily.

"Aunt Mary Ellen. She only found out lately. I don't think you've been fair at all. Let me talk about Averil and I let you help me with my letters. Do you suppose I'd had done that if I'd known you were hating her at the time?"

"I'm sorry," said the judge humbly. "Can't you forgive me?"

"Yes, I can forgive you because I think so much of you. But I can never talk about Averil to you again and you needn't expect me to. And another thing—you needn't speak to Aunt Mary Ellen about that matter. We were scussing. I can't adopt you for a grandfather because it wouldn't be fair to Averil. You ought to be her grandfather and it's my duty to think of her rights. Of course, if you feel like being grandfather to us both

"Never!" interrupted the judge, scowling blackly. "I'll never have anything to do with that woman or her child. Peter, you don't understand, you can't understand."

"Well, it isn't a nice subject," conceded Peter, "but I'll keep on feeling that way."

"We'll see what difference a year or two will make," the judge said to himself. But he did not have to wait so long. One September afternoon when the judge came in from a drive, Jenkins met him with a very sober face.

"There's trouble at the little house, sir. The boy has been badly hurt—he was run over by young Blair's automobile and he's been asking for you."

Without a word the judge went down the lane to the little brown house. He met the doctor at the door.

"How is he?" whispered the judge. The doctor looked at him curiously. He had never seen Judge Raymond so moved before.

"There's no hope," he said. "It's only a question of a very short time. I always knew that drunken Blair would wind up by killing somebody. But the boy is quite conscious and wants to see you."

He ushered the judge into the spotless little bedroom. A tall, plain-faced woman with deep, kindly eyes was bending over the bed, where the little fellow lay. The pink was gone from Peter's face, but the big bright eyes looked out undauntedly.

"My boy," said the judge, his voice breaking in a sob. Peter smiled gallantly.

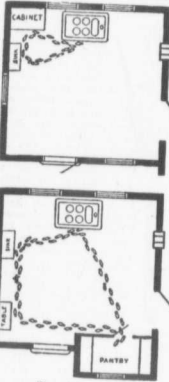
"I'm glad you've come," he said faintly. "There's something very important I want to say to you, and I guess there isn't much time, so I want to see you about Averil. Aunt Mary Ellen says it's such a hard world for women. You see, Averil's my promised wife and when I'm dead she'll be my promised widow. I want to do my duty to provide for her. Won't you be her grandfather, sir—just as such her grandfather as you'd have been mine?"



"Peter, is this you?" demanded the astonished judge.



would not be without it, and would not sell it for three times the price, if she could not obtain a duplicate. The cabinets are not high in price, when one considers the great saving in time and strength that is the result of their use. Most satisfactory and easy terms can be had of the makers of these cabinets, which should enable any housewife, by saving a small amount each week, to own one of these most



Plan of Kitchen. How Footsteps are saved.

handy and labor saving conveniences. Be up-to-date and start saving for a cabinet.

Another one of our subscribers writes us regarding her cabinet, as follows:

"I can say I am very much pleased with my kitchen cabinet. I believe them to be labor savers, and I am sure you would think so also, after you had used one for a while. Mine is quite a large cabinet, but has no drop shelf. It has, however, almost all the other attachments, such as drawers, bake board, flour bin, tea and sugar bins, grocery closets and a nice place for kitchen utensils. It also has a row of bins for spices. When I bake I can stand still and reach all I need to bake with."

"I rather think it saves me a good many steps in a day. They are also very handy in getting a meal. I have had mine now for four years and would rather part with any piece of furniture than my kitchen cabinet."—Mrs. William Hamo, Perth Co., Ont.

**Heating Our Farm Homes**

The majority of our farm homes are heated by stoves, or furnaces. This method is now becoming obsolete, and many of our farmers are substituting hot water and steam heating over, in preference to furnace heat. There are said to be several good reasons in favor of the hot water heating. One is the fact that it is usually a cheaper system to install. It is also considered by many of the cheapest system to maintain after installation.

Some farmers are able to install a plant for as low as \$150, while others with large homes and with a desire to have the very best, could expend as high as \$700 to \$900. Statistics prove that it is easily possible to heat any six-room house with a plant costing \$150 to \$300; a seven-room house for \$250 to \$300; and a ten-room house for \$400 to \$500. This cost includes installation and a guarantee usually by the manufacturer to heat the house to 70 degrees in severe weather.

**COST OF FUEL.**

The next important thing is the cost of fuel. This also varies widely. In some localities where wood is yet available this is used, and, of course, the cost is then merely nominal, con-

sisting largely of the labor required to get the wood in shape to burn. Where coal can be had at a very reasonable figure, the cost does not exceed \$25 to \$30 per year, while in other locations remote from a coal supply, the cost runs up to \$60 to \$70 per year.

**A UNIFORM HEAT.**  
Comfort considered, this is exceedingly reasonable. To begin with, there are no stoves to be looked after, no ashes to be removed, consequently it is much easier to keep the house clear. What is more important, however, is the fact that the whole house is uniformly heated. With stoves or fireplaces it is possible to heat only a few rooms, but with a hot water outfit not only is every room comfortable, but the halls and entry ways are not cold.

**PURGE AIR WITH HOT WATER HEAT.**  
With a hot water heating system it is easily possible to secure pure air at all times. The loiter of the furnace is located in the basement and pipes go to every room. The heat, coming from below, warms the house uniformly throughout. There are no drafts, nor are there any places that are excessively hot. Furthermore, the furniture in a hot water heated house remains in a much better condition than where other kinds of heat are used.

**INSTALLING THE PLANT.**  
The hot water plant, of course, is more easily installed than the building is being erected but it is not a difficult thing to install the plant in a house that is already built. This work can be done any time during the summer and you will be ready for the most comfortable winter you have ever had.

A farmer we have in mind says that he built a brick house about three years ago on his farm six miles from town. A steam heating plant was installed after the house was completed, all this the best plan being exposed. He thinks a leak, no difficulty would be experienced in locating it. The complete outfit cost about \$225. He has used it three winters without any trouble and it has given him the very best of satisfaction in all kinds of weather. Five rooms on the first floor are heated,

besides a hall and bathroom and the same space above—using 12 radiators in all.

Nothing has ever frosted in this house. Last winter this farmer put in ten tons of coal, at \$4 per ton. This lasted the entire season. It requires no more work to run a furnace of this kind than one coal stove. In his old bedroom at a cost of \$29. He writes: "I could convince myself that I ought to get along by heating one or two rooms and leave the remainder of the house cold, I think I would use a stove. I could not warm the same amount of space with four stoves and labor. I have always tried to arrange my house so as to save all unnecessary steps. I would not think of doing without my steam heat."

**ANOTHER INSTANCE.**  
A farmer's wife told us recently that they had installed a hot water heating plant in an old house. The cost, including installation, was \$208. The house has seven rooms, with a hall and open stairway, which makes it easily a nine-room house. They removed the place in the fall of 1905, and removed an old hot-air furnace, which burned 20 tons of coal per year, and replaced it with the present plant. There is no weakness in the system. It would take five stoves to heat the space that they now heat with about two-thirds as much coal. They average about nine tons of hard coal a year, at a cost of \$72, delivered. This requires less attention. Soft coal would cost much less.

**ANOTHER PLANT.**  
Another farmer in Wentworth Co., Ont., has used a hot water plant for about seven years. It was installed in a new house after it was completed, thus increasing the cost. The total outlay was \$324. A heating plant makes a home very much like summer the year around. There is very little dust and much less sickness than where heating is supplied by stoves. These people would not be without a heating plant. They use soft coal. Eight tons at \$4.50 a ton, or \$36, will do a year. This hot water heat is 20 per cent. cheaper than stoves.

or a hot air furnace. They have the best radiators and heater that can be obtained. In seven years the plant has not cost one cent. for repairs, and has never given any trouble.

Put in a bath, have a water system with windmill and gasoline engine. If you want cheap light put in acetylene gas and live the life of a king. In the end you will have a larger bank balance, fewer doctor bills, fewer deaths in the family, smaller coal bills, smaller oil bills, and live to a good old age.

**The Best Food for Workers.**

The best food for those who work with hand or brain is never high priced.

The best example of this is found in Quaker Oats. It stands at the top among foods that supply nourishment and vigor, without taxing the digestion, and yet it is the least expensive food one can eat.

The great food value and low cost make it an ideal food for families who want to get the greatest good from what they eat.

Laborers, factory or farm hands, fed plentifully on Quaker Oats will work better and with less fatigue than if fed on almost any other kind of food. All of these facts were proved and very interesting information about human foods was gathered by Professor Fisher of Yale University in 1905.

**FOUNTAIN PEN FREE**

To every lady and gentleman, girl and boy, for selling only 6 pairs of our patent pen and facsimile at 25 cents per pair, we will give absolutely free a fountain pen; do not delay, send to-day; send no money, only your name and address, to:

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TORONTO - ONT.

**MUSIC FOLIOS FREE**

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I Cannot Sing the Old Songs  
Darling Nellie Gray  
The Spanish Cavalier  
Then You'll Remember Me (When Other Lips and Other Hearts)

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The Monarch of the Woods  
Tell Her I Love Her So  
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The Yeoman's Wedding Song  
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It was a Dream  
Thy Face

We have arranged with one of the largest music publishing houses in the country to supply our readers with any of these folios, absolutely free of cost. The selections in each volume would cost you from \$1 to \$2 if purchased separately. Love over the list, see which folio you want. Send in your renewal to Farm and Dairy, or One NEW Yearly Subscription, and we will send you your choice at

**MUSIC DEPT., FARM AND DAIRY PETERBORO, ONT.**

### Embroidery Designs

Designs illustrated in this column will be furnished for 25 cents each. Readers desiring any special pattern will confer a favor by writing Household Editor, asking for same. They will be published as soon as possible after request is received.

### Our Embroidery Patterns

In this issue we begin the illustration of our special embroidery patterns, for the benefit of our readers. These patterns we hope will be as useful and pleasing as we intend they shall be. Holiday season work is coming on apace, and our readers will find many things illustrated in this column that they will wish to obtain. We know these patterns will prove all that is reliable and that they will be coming on apace, and our readers will find many things illustrated in this column that they will wish to obtain. We know these patterns will prove all that is reliable and that they will be coming on apace, and our readers will find many things illustrated in this column that they will wish to obtain.

410—Design for Embroidering a Blouse or Shirt Waist.  
The decorations for the front, a collar and cuffs are given. The roses



and leaves are designed to be worked in long or short stitch; the buds, calyces and turned-over edges of the flower petals in solid embroidery, the stems and veins in outline stitch and the stems of the smaller roses to be worked in French knots.

404—Design for an Embroidered Apron.

The apron pattern is suitable both for lawn, batiste and other similar materials and for silk. The embroid-



ery can be executed in cotton on washable materials, in flax or twisted silk on silk fabrics. The scalloped edges are designed to be buttonholed, the flowers and stems of the design to be outlined and the dots to be worked solidly in French style.

Our embroidery stamping outfit can be secured for 75 cents, or free, in return for two new yearly subscriptions. Choice of any other three patterns, free in return for one new subscription.

### THE COOK'S CORNER

Our New Cook Book given free for two new subscriptions to Farm and Dairy, at 81 cents. Receipts for subscription are requested. Inquiries regarding cooking, recipes, etc., gladly answered upon request to the Household Editor, Farm and Dairy, Peterboro, Ont.

Our New Cook Book free for only two new subscriptions.

#### APPLE OMELET

Stew 8 large apples and put through a colander, then add 1 cup sugar and 1 tablespoon butter. When cool whip in separately 4 beaten eggs, and bake until brown, in a rather quick oven.

#### APPLE PIE

Use any favorite recipe for the crust, and fill full with chopped or finely sliced, nicely flavored apples. Cover with sugar, cinnamon and dots of butter, then put on the upper crust, prick or slash, and bake in a medium oven.

#### APPLE FRITTERS

To 2 cups flour add pinch of salt and 1 teasp baking powder; then stir in 1 cup sugar, 1 cup milk, and 3 beaten eggs. If not quite stiff enough, add a little more flour. Lastly stir in chopped apples. Cut off spoonfuls of this batter and fry in deep, hot, but not too hot, fat, until brown, then drain and sprinkle with sugar.

#### CHICKEN PIE

Cut up 2 chickens and cook until tender, then carefully cut all the flesh from the bones. Put in a sawpan with an onion, sliced thin, two stalks of celery, cut in small pieces, half a cupful of stewed tomatoes, a teaspoonful of salt, a grating of nutmeg and two leaves of parsley, cut fine. Cook slowly 1 hour, carefully dredging in flour until you

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## "Puritan" Reacting Washing Machine

The improved Roller Gear — an exclusive feature of the Puritan — extra heavy Balance Wheel, and Roller Bearings, enable a child to do the entire washing. Gear is enclosed in metal cap so there's no chance of children getting fingers injured.



### Churning Made Easy

"Favorite" Churn is worked by hand, or foot, or both. Roller Bearings mean quick, easy churning. Built for strength, 8 staves to churn from 1/2 to 30 gallons of cream.

Write for booklet of these "Household Necessities" if your dealer does not handle them.

DAVID MAXWELL & SONS  
25, May's Cor.

have used 2 tablespoonfuls. Line a deep dish with a pastry which has been added a teaspoonful of baking-powder. Put in the chicken preparation, cover with pastry and bake 1/2 hour.

#### BREAD AND FRUIT PUDDINGS.

Almost any kind of fruit or berries can be used with dry bread crumbs or left-over cake crumbs, or a little of both, mixed. Put in alternate layers in a buttered pudding dish, sweeten to taste, add spice to taste, and if the fruit is not very juicy moisten with a little water or milk. Bits of butter dotted over the fruit are an improvement when such fruit as apples or peaches are used.

#### RICE AND JAM PUDDING.

Put alternate layers of stiff cooked rice and strawberry or raspberry jam into tea or individual pudding cups and set away in an ice box or cellar to cool until supper time, when they may be turned out into saucers and served with cream.

#### SWEET SPICE SAUCE.

Boil 1 cup sugar and 1/2 pt water 20 minutes. Then remove from fire, and add 1 teasp each extract of cloves and of ginger.

#### oatmeal CRACKERS.

Thoroughly mix 1/2 cup lard with 2 cups sugar, add 1/2 teasp soda dissolved in 1/2 cup hot water, 3 cups oatmeal, and 1/4 flour enough to stiffen. Roll thin and bake in a quick oven.

#### sour CREAM CRULLERS.

To 1 cup sugar add 1 cup sour cream, in which dissolve 1 level teasp soda, 1 beaten egg, and flour to roll.

#### CORN SOUP.

One can corn rubbed through a colander. Heat 1 qt milk in a double boiler. Rub through 2 tablesp Lard and 1 of flour, and add to milk. Then add corn. To make extra good add whipped cream after it is put into the soup dishes, 1 tablesp to each dish.

Wash and soak over night 2 cups split peas. Put into kettle with 4 qts cold water, 1/2 lb. lean salt pork, 1 stalk celery, cut up, an onion, salt and pepper. Boil gently 4 or 5 hours, and rub through a sieve.

### Our Music Folio

Have you noted our Music Folio premium offer? It is one of the best we have yet offered to our readers and is fast becoming popular. One musical folio of standard music, printed on good quality paper, well bound, worth anywhere from 75 cents to \$1.00, given free, for a new or renewed subscription to Farm and Dairy. A folio would make a very valuable Christmas remembrance.

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### The Sewing Room

Patterns 10 each. Order by number and size. If for children, give age; for adults, give bust measure for waist, and waist measure for skirt. Address all orders to the Pattern Department.

#### BOY SOLDIER AND ROUGH RIDER SUIT 624

The soldier suit can always be trusted to make the boy happy. Just now there is an equal demand for the regulation sort and the one made in Rough Rider style, and both are included in this pattern, neither the suit consists of jacket and trousers. The jacket is shapely and well fitting yet perfectly simple, involving no difficulty in the making. The trousers are of the long regulation sort and both suits are smart in effect.

Material required for the medium size (10 yrs) is 4 yds 27, 3/4 yds 44 or 2 1/2 yds 55 in wide, with 1/2 yd 27 in wide for trousers. The pattern is cut for boys of 6, 8, 10 and 12 yrs of age and will be mailed on receipt of 10 cts.

#### CHILD'S PLAY DRESS 623

The play dress makes a very important feature of the child's wardrobe. This one is simple and serviceable yet attractive and becoming and can be made either with high or square neck, with long or short sleeves.

Material required for medium size (6 yrs) is 3 1/2 yds 24, 3/4 yds 32 or 2 1/2 yds 44 in wide. The pattern is cut for girls of 2, 4, 6 and 8 yrs of age and will be mailed on receipt of 10 cts. In the illustration chimney is optional.

#### BISHOP SLEEVES WITH CAPS 621

Bishop sleeves make one of the very latest developments of fashion and those illustrated, with separate caps, are exceedingly smart as well as becoming. The lower portion of each is designed for thin material while the cap is supposed to match the blouse.

Material required for medium size is 4 yds 27, 3/4 yds 44 or 2 1/2 yds 55 in wide; for any puffs, 1 yd 21, 24 or 32, 1/2 yd 44, with 1/2 yd 18 for deep cuffs, 4 yds of handker to trim the sleeves with rolled over cuffs.

The pattern is cut in 3 sizes, small 33 or 34, medium, 36 or 38, and large, 40 or 42, and will be mailed on receipt of 10 cts.

#### TUCKED BLOUSE 627

The shirt waist that is closed at the left of the front and made with a single revers is one of the latest and smartest. It will be greatly in vogue throughout the coming season and is equally appropriate for the odd waist and for the gown.

Material required for medium size is 3 1/2 yds 24, 3/4 yds 32 or 2 1/2 yds 44 in wide. The pattern is cut for a 34, 36, 38, 40 and 42 in bust and will be mailed on receipt of 10 cts.

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W KIRKWA and every autumn by either sing and there, their rich shades. Th rather pecu was follow crops are on account weeks being an acreage wise would of what is well, unless a ground the summer. M The corn er, the average; down until ing the sunn side and th throving to any fall plu and high. When 80c to 85c a



October 14, 1909.

**OUR FARMERS' CLUB**

Contributions Invited.

**QUEBEC**

**COMPTON CO., QUE.**

**COMPTON CENTRE**—Only a few people have their potatoes dug. They are a very good crop. Oats are a good crop, although they suffered much from grass hoppers and crickets. Buckwheat did not do well. Cattle are not looking very well on account of short pasture. Pork continues high in price, being about 11½ a lb.; butter, 24c; eggs, 20c to 25c a doz.—H. C.

**LISLET CO., QUE.**

**LISLET**—Crop is about half saved; the remainder is half out; balance is up yet. We are satisfied of an average crop. Fruits are poor in quality and quantity. The weather is very wet, and low lands are flooded everywhere. One hundred thousand logs were cut by a lumber company, and the St. Lawrence was covered with them for several miles. At our exhibition very few farmers were present. The chief attraction was a complete exhibit of home cream separators. Potatoes are a very good crop and low prices are expected. Pork is scarce and brings 12c a lb.—A. Y.

**SHERBROUKE CO., QUE.**

**LENOXVILLE**—Harvesting is over and plowing and throwing is now the order of the day. The straw is short but grain is threshing out very well, and the yield will be well to do to the average. The ground is still too dry to plow properly. Heavy rain recently has helped matters somewhat, but the lack of rain has kept the pastures down so that the milk supply is very much reduced, and the usual supply of fall feed is also very short. Many farmers are sacrificing their stock on account of the shortage of hay. Good beef is bringing a good round price but is still indifferent, cattle can be bought very cheaply. Large quantities are being shipped to other parts of the country and this will no doubt greatly relieve the deficit. Potatoes are good, holding high at 11½c and 12c, while young pigs are worth 83¢ each on the market.—H. M.

**ONTARIO**

**HASTINGS CO., ONT.**

**CROOKSTON**—The weather continues dry. Pastures are short. The milk supply is in the factory is lower than it has been in a number of years. The buckwheat crop is extra good this year with the late spring. Good farmers report the potato crop good. Roots are suffering for prices very high, 27.25 to 27.50 being paid the last shipment.

**VICTORIA CO., ONT.**

**CAMBREY**—All harvesting with the exception of buckwheat, is finished. Threshing is being done. Grass is which was sown early in the spring is not as good as that which was sown later. The frost in June much better than was expected. It is having corn quite a lot the last three weeks. Several farmers grow large quantities of silos. Alkali clover was grown to have extent and yielded very good. Red clover many farmers are cutting for hay.—T. C.

**WENTWORTH CO., ONT.**

**KIRKWALL**—Summer is over once more and everywhere one can now see signs of autumn by the bare fields and the trees, either singly or in groups, scattered here and there, which are now changed from shades. The past summer has been a rather peculiar one; the wet, cold spring was followed by a very dry summer, and the crops are consequently below the average. On account of the past month or six weeks being so dry, there was not as large a quantity of wheat sown as there otherwise would have been. A considerable amount of what is sown has not come up very ground that on summer fallow or on summer. Most of the silos are full in the corn crop on the whole is not up to sown until late, and the dry weather during the summer retarded its growth considerably. There is still a good deal of any fall plowing still impossible to do on rain and stock of all kinds are selling high. Wheat is about 85c a bush; pigs, 85c to 86c a bush; oats, 50c a bush; hay,

84 a ton; hogs, 85.50 a cwt. It is almost impossible to buy hogs of any age.—C. W.

**BRANT CO., ONT.**

**FALKLAND**—Wheat, generally, is up well and growing nicely and will have a fair top to enter the winter. Spring seedlings of clover are quite patchy, as of late long continued hot dry weather burned several hard frosts lately. Potatoes, and other tender plants were potatoes, but generally have begun digging Mangels and turnips will be benefited by the recent rains, but lice have benefited by appearance in the latter crop again, and considerable fall plowing has been done. Pastures are done for to be put on winter feed all the year except for a few weeks in June. Wheat is 90c a bush; hogs, 85; eggs, 25c; butter, 25c.—L. T.

**MIDDLESEX CO., ONT.**

**APPIN**—Silage is in full swing. The corn crop has picked up well so far as straw is concerned, but September was a poor corn month, and the grain has advanced towards maturity no more in that month than a good week in late August. Frost has killed the uncut portion of the crop. Late varieties have only proven the necessity of early planting of growth in the fall. The weather in late August and early September was very hot and dry, and the grain has not been proven by those who have felt the shortness in the corn crop. The report can't understand how other points report they can only turn out about one-third of usual spring crop of oats and barley.—C. M. M.

**WATERLOO CO., ONT.**

**AYR**—We are still badly in need of more rain, the showers of the past few days merely moistening the surface. Pastures are rather bare and the trees in wooded meadows are thereby pastured too closely. Most of the silos are filled, although a few still remain. Corn is being looked upon more and more as a necessary crop to grow here one intends feeding little. It was a good crop, but not to any great extent. The fall wheat is not making very great growth, on account of lack of moisture and cool weather. A considerable acreage was late in sowing. Turnips are looking fairly good, though the dry weather will decrease their yield. The tree have not yet appeared to any extent this season. A considerable quantity of early turnips were shipped, bringing 12c a bush. Mangels are a good crop but owing to a somewhat poor catch, are reduced in quantity. Potatoes promise well, the light acreage, and drovers are finding it hard to find enough to fill the farmers' stables. G. S. B.

**ELGIN CO., ONT.**

**FINGAL**—This is an old settled district, and about one hundred years ago hardy and women crossed the ocean, mostly from the north of Scotland, and here they found for themselves beautiful home lands, heavy forest. These farms are still well kept, and have good farm buildings, and many modern conveniences. Splendid land being clay loam it requires good muscled to work it. The old original road, once the highway between Huron and Detroit, passes through Fingal. This has partly lost its once heavy traffic by the coming to the lake of the Erie canal. Fingal and near the lake applies are fishes. From here the apples are quickly brought to their owners splendid returns. A number of cement silos were built this year in this district, and are now being filled. More attention is paid to breeding than to the milking breeds. Many loads of cattle are yearly sent to the overseas market, generally getting their own sheddens in receiving some milk from their patrons.—J. E. O.

**ESSEX CO., ONT.**

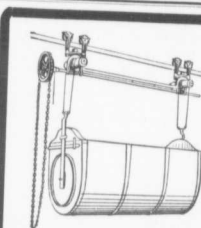
**ARNER**—There has not been enough frost to do any damage. Corn has just commenced. Most of the corn is

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THIS WEEK'S PRICES FOR HOGS DELIVERED AT FACTORY  
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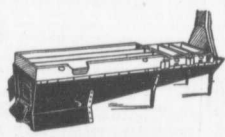
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Get the children busy and earn a sweeper to lighten mother's duties.



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Best labor saver for the housewife. Help earn one for Mother. Machine as above for a club of Nine New Yearly Subscriptions to Farm and Dairy, at \$1.00 each.

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Open Book Case, hardwood, rich golden surface, oak finish, 37 in. high, 26 in. wide, 13 in. deep, brass rod for curtains and rings, well made and constructed; three adjustable shelves.

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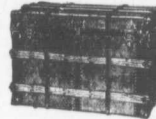
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Description—It has only two parts, the case and the roll, and can be taken apart for cleaning.

Four knives are supplied with each machine to cut coarse, to cut fine, to pulverize, and to make out without taking the cutter apart. Any particle of food which can be cut with a chopping knife, can be minced with this machine apart. Any particle of food which can be cut with a chopping knife, can be minced with this machine apart. Any particle of food which can be cut with a chopping knife, can be minced with this machine apart. Any particle of food which can be cut with a chopping knife, can be minced with this machine apart.



This trunk has extra heavy bumpers on each corner, with 1/2 in. hardwood slats, valance clamps and drawers, also two 1/2 inch grained leather straps riveted to sheet iron bottom, deep covered tray and hat box.

Extra heavy bumper corners, steel band, strong, ornate, and water proof.

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