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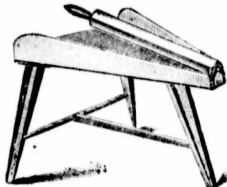
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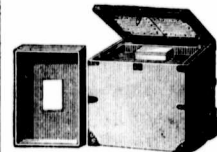
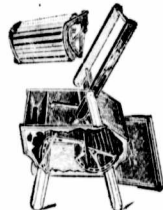


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The Farming World

For Farmers and Stockmen

Vol. XX.

MAY 6th, 1902

No 17.

Prosperity and the Farmer.

NOT for many years have conditions governing supply and demand been so favorable to the producer as at the present time. This is the case not only with the farmer, but also with the manufacturer. Without exception the manufacturer of farm implements, and, in fact, nearly every concern catering to the farmers' trade, has orders ahead for several months to come. So great seems to be the demand, that the manufacturer is quite independent and can get his own price for the goods he has to sell.

On the other hand, the farmer is finding an unusual demand for many of his products. Horses are selling better than for years past, and dealers complain that really first-class animals of the draft, saddle and carriage classes are hardly to be had at any price. Beef cattle command the highest prices in years, while the bacon hog is keeping up its record of the high values of the past twelve months. Sheep are also feeling the effects of the higher values in other lines and are on the up grade. Eggs are starting out with every prospect of commanding higher prices than even last year afforded. Then that most important industry, the dairy is beginning the season with higher prices than have been paid for several years. With early cheese selling at 10c. to 10½c. and creamery butter at 20c. to 21c. per lb., there should be good money in the dairy cow this season. In grains, with the exception perhaps of wheat, prices have ruled unusually high during the winter, and values for coarse grains are higher at this season than they have been for years past. In fruits and potatoes the same conditions prevail, so that with the single exception, perhaps, of wheat, the products of the farm are commanding higher prices than has been the case for many years.

This is certainly a happy condition of affairs. The manufacturer should be happy because his factories are running to their full capacity; and the fact that the farmer has supplied the former with orders several months ahead indicates a degree of prosperity that should make him happy also. The consumer in this reckoning does not count. He pays his twenty cents per lb. for beef and is seemingly content. There would be little use, however, in his making a "kick," so he journeys on his way

happy, no doubt, in the thought that these extra values are re-doubling to the prosperity of the whole country.

But speaking seriously, these facts show clearly how closely is the alliance between general prosperity and agriculture. The source of Canada's prosperity to-day is to be found in the condition of the farmer. Touch the button that sets in motion the wheels of prosperity among the agricultural classes and factories at once begin to hum and business of all kinds to revive. Many who prosper and make money in our large cities and towns fail to realize this; they should. Amid the cares of business and the activities of mercantile life they quite overlook that most important of Canadian citizens, the farmer. He is the chief factor in this country's development and progress, and any movement or any method that will keep him prosperous should receive the hearty support of every citizen of the Dominion.

The present satisfactory condition of Canadian agriculture is, however, no criterion of what is possible in this direction. High prices alone cannot bring the largest prosperity to the farmer. Wheat, for example, may be \$1.00 per bushel and the farmer only have 10 bushels per acre to sell; while on the other hand, it may be only 75c. a bushel, and he have 20 bushels per acre to sell. Many a farmer to-day is not able to take advantage of the high prices for the best horses and cattle because he has none to sell. If by better breeding and feeding methods all the beef cattle in this country could be sold as the best exporters' or choice butchers' cattle, how it would increase the profits of the farm and bring additional prosperity to the country. Follow this out in all the branches of live stock, fruit culture and grain growing, and we will have some idea of the possibilities of Canadian agriculture. If every acre of cultivated land in Canada were producing the highest quality and largest quantity of grain possible; every orchard the highest quality and largest quantity of fruit possible; every dairy the highest quality and the largest quantity of dairy products possible; and every farm the highest types and the largest number of live stock possible, Canada's present prosperity would be insignificant as compared with what it would be then. Such a condition of affairs is, perhaps, too idealistic to be realized. And yet it is within the possibilities,

and shows what education and better methods intelligently applied to Canadian agriculture are capable of realizing. An increase of even one per cent. in the value of Canada's annual agricultural output would mean a great deal to the country, while an increase of ten per cent., which should not be difficult to realize if everyone set about it in the right way, would mean ten times as much. Is there not food for thought in this for every farmer? Let him look into his present methods and see where they can be improved upon. By so doing he can greatly increase his own prosperity and that of his country as well.

The Potato Crop.

The average Canadian farmer plants enough potatoes each year for his own use and no more. This amounts to from one-half to one acre each season. If the crop is an extra good one he will have some to spare for market, and if a poor one the family will have to be satisfied with a smaller allowance to their meat. But whether the size of the potato-patch be great or small, it will pay to give a little attention to the land in which the potatoes are to be planted. A sandy loam is considered a good soil for growing potatoes of good quality, but this must be liberally manured to get a good crop.

In potato growing the selection of the seed is important. A good plan is to select the seed in the fall from the most prolific hills. Choose the largest tubers and reject all those that appear to be immature or unripe. These should be barreled up and the barrel head secured to prevent change of temperature when stored. To keep well, the room should be held at from 36 to 48 degrees. A week or two before planting they may be brought to a warmer room where there is not too much sunlight and allowed to put out sprouts.

The land should be thoroughly cultivated before planting, and if the planting is left till the ground is warmer new potatoes will be secured as quickly as if planted a couple of weeks earlier in cold, wet ground. Then potatoes can be planted in rows or hills as desired. The width of the rows or hills apart will depend largely upon the richness of the soil. In this the farmer will have to use his own judgment. A little attention to the potato crop will pay in a good year, and much more so in a poor year.

Our Western Letter

The "Move on" Fever. Tree Planting in the West. Prof. Robertson in Demand. Plowing and Sowing.

Winnipeg, April 28, 1902.

"Move on" has been the watchword of the human race. From the land of its origin, in Central Asia, it quickly pushed its way Eastward to the Pacific, then, its advance barred by that vast expanse, commenced its irresistible progress toward the West. The tide has flowed ceaselessly, irresistibly, ever since the dawn of history the vanguard of civilization has been crowded to the West by the pressure from behind. That process continues, and will continue until the waste places of the earth shall bloom as the rose.

The "Move on" fever strikes just about once in each generation. Fifty years ago Western Ontario was a sparsely settled wilderness; much of what is now the finest farming land and valued at anywhere from \$75 per acre up, was then unbroken forest. The "move on" fever filled it with settlers from older lands. Twenty years ago the people of Ontario began to "move on." They went to Kansas, California, Dakota, Michigan, Manitoba. At the same time, in the Eastern United States, the movement was equally marked, and from this resulted the rapid settlement of Illinois, Minnesota, Kansas, Nebraska, North and South Dakota. Twenty years ago these victims of the instinct came first to Manitoba. It was a tide of immigration such as has been seen neither before nor since. But it is recommencing. The tri-centennial migration has commenced, and for the next five years it will continue to cast upon our shores the weary land-seekers from East and South.

Ten years hence Manitoba's sons will feel the restless instinct rising within them and compelling them to "move on." Whither will they go? Will there then be lands available on the American continent? Will it be Siberia or Australia that will reap the benefit when the next move takes place?

Words can scarcely portray the immensity of the movement into Western Canada. Its effects are not altogether wholesome. It has stimulated business in all lines, and this rapid increase in legitimate dealing has induced an inordinate amount of speculation. Not only are farm lands more speculative than ever before, but city and town property is also affected. Another result of this incipient "boom" has been the increased cost of building lumber, stone, lime, sand, labor, all have increased from five to ten per cent. since a year ago. All this is unwarranted. There is no adequate reason why lumber should have increased in price, save that manufacturers saw an opportunity to squeeze a couple of dollars more per thousand out of the consumer. The same applies to other building

material and to the masons, carpenters, etc., who are also squeezing their employers for increased pay.

Arbor Day will this year be more generally observed in Manitoba than ever before. This is due to a variety of causes. Primarily among these is the prosperity of the country. The farmer has time to think of "fixing up" the place, and he has the money to do it with. There are few persons in the world who do not love trees, but there are many who cannot afford to plant and care for them. All tree planting in Manitoba must be done in Spring just when the "rush" is on, which prevents much improvement that would otherwise be done. Other elements in this awakened interest are the lectures at Farmers' Institutes, and the free use of the public press by those interested in forestry and arboriculture. By these means our people have learned that it requires only care and cultivation to grow trees, and that the failures of early days are not due to climatic conditions. The excellent work of the forestry department already referred to in these columns, has had much to do with the development of Arbor Day from a mere holiday to a tree-planting festival.

There is no man in the country more generally liked, admired, and respected by the people of Manitoba than Prof. Robertson, and his savings and doings are read with interest. It is a matter of great regret to the people of Manitoba that he has been unable to spend more time in this Province during late years. We feel sure there is work here for that able gentleman and that the Province would be greatly benefited by an extended visit from him. Doubtless, the work which takes him on his present trip to the Old Country is of indirect benefit to this Province as well as the rest of Canada. We would, however, feel more confident of direct results if we could see him hobnobbing with our local officials from time to time. There are many ways in which our Provincial authorities might doubtless be benefited by the Professor's advice and assistance and (we make the suggestion very timidly), perhaps he might thereby have improved, or increased, understanding of the wants of Agriculture and Dairying in the Prairie Province.

Seeding and spring plowing are progressing slowly. In both this season is two weeks behind last year. But the causes that have been responsible for this delay will by, up to the present writing there has been abundant rain, and there will be no necessity for further rainfall until the June rains commence. We look for warm, dry weather all

through the month of May. This, if realized, will be more favorable than an early spring with less rain in April.

There are rumors of all sorts of manufacturing enterprises in the Prairie Capital. The latest is a projected agricultural implement factory. We should like to see this realized but fear that we shall not have that pleasure for many years to come.

The Hen as a Colonizer

The following item from last week's New York's Produce Review is somewhat startling:

"James Rudden, the well-known English poultry-dealer, has, according to the Egg Reporter, settled 150 families in Canada, expressly for raising poultry for his large trade in England. He expects to get first shipments from his Canada "agents" this coming winter."

This is the first intimation we have had of the great English poultry dealer's colonization scheme. In what part of the Dominion have these families settled? If they have settled in one district and have gone into poultry raising only, a trip to that locality would be interesting. There seems, however, to be more "cackle" in this rumor than anything else. Perhaps the families are of the poultry tribe.

American Dairymen Win

The Oleomargarine Bill has passed the United States Senate and the dairymen of that country are happy. The bill only awaits the signature of the President to become law, and shall come into force on July 1st, 1902. The bill, as finally passed, is a lengthy document and provides for the regulation of the sale of oleomargarine, filled cheese or other spurious dairy products, making it impossible for these articles to be sold for other than what they really are. This is a big victory for American dairymen, and we extend to them our hearty congratulations.

The Dairy Conference

The Dairy Conference, held last week at Ottawa under the auspices of the Dominion Department of Agriculture, was a most important gathering. About 30 teachers and instructors in dairying from all parts of Canada were present and discussed topics of vital importance to the dairy industry. A special report by an expert is under preparation for The Farming World. Up to the time of going to press it had not arrived, so we have been compelled to hold it over for next issue. Makers or factory owners desiring extra copies of that number for distribution among their patrons can have them at three cents per copy in 25, 50 or larger lots. If the names and addresses are sent to this office we will mail them direct without further charge.



Farm Residence of Henry Pigott, Kimball, Ontario.

Rational Treatment for Tuberculosis

Messrs. Edwards & Co., Have Success With the Bang System

No question in recent years has been discussed with such warmth and very bitter feeling at breeders' meetings than that of tuberculosis. Among the more recent literature on this subject is a letter from W. C. Edwards & Co., Rockland, Ont., to *The Breeders' Gazette* of last week, in which they give a detailed account of the experiments conducted by them under the Bang system to eliminate tuberculosis from their Shorthorn herd. As our readers are aware Messrs. Edwards & Co., began their experiments about four years ago and have conducted them since with marked results. The experiment in short consisted of separating the reacting animals from the sound ones and placing them under proper sanitary conditions, ventilation, etc. The method of treatment and the results therefrom are given as follows.

From the time of making the separation we have raised calves steadily from what we call our diseased herd, and most successfully. We raised a number on sterilized milk, heating it to 185 degrees by using two vessels one inside of the other, giving a water space between so as to avoid burning the milk. A much larger number we have raised on nurse cows and a limited number we have raised by their own mothers kept in other buildings entirely separate and only allowed to come together long enough to nurse in the open yard. From the fact that of all the calves raised by us as we have described only two have responded to the test, it may be regarded that each plan is successful. Our preference, however, is for the nurse cow and it is this plan we practice most. By removing immediately from the cow on being dropped and

using sterilized milk we lost several calves when practicing this plan, added to which the system is more or less troublesome and laborious, and as a consequence we have discarded it altogether. Keeping the calves entirely separate and nursing in the open yard we think reasonably safe and particularly so if there is no disease of the udder or in the glands of the milk secretion, but as our cows are generally very valuable both in breeding and individuality, our practice is most largely to raise the calves on nurse cows, allowing them to suck the dam two or three times before removal. We regard our experiments as having been most successful. We have naturally met with some serious disappointments and discouragements. Not one single animal of our own raising has responded after repeated tests except the two we have named, but several of the animals purchased by us and quarantined (we quarantine all cows purchased and test them before we allow them to enter our herd) have responded to the test and have joined what we call our diseased herd. But having set out in the direction we have, nothing shall cause us to turn, and we shall continue on in the direction we have planned.

"In all we have done there are certain conclusions we have arrived at, and among them are the following: That the veterinary authorities, in some instances at least, have been too exacting and perhaps a little too extreme on one side, and on the other, breeders and importers have gone, in our opinion, too far in denunciation and condemnation of the tuberculin test. In the inception the veterinary authorities, or some of them,

would have gone in for the destruction of every animal that responded to the test, and while in the light of subsequent events we do not think any could now be found who would do so, yet it is far too common among them to exact such conditions as to deter the ordinary breeder from an attempt to eradicate tuberculosis from his herd.

"As to the exactions of the Governmental authorities of the United States and Canada in so far as it is possible for them to prevent the importation of tuberculous animals from beyond the seas or from crossing the International line pro and con, and what is regarded by them as their duty in the premises, we make no remark further than this, that in so far as practical results are concerned their efforts cannot be effective unless the home herds in both the United States and Canada are first made sound. No good can be accomplished by an inflow of sound animals into diseased herds, and who can tell what herd in the United States or Canada an imported animal is going into? And while not for one moment presuming to dictate to the authorities as to what they may or may not do, nor what they may conceive to be their duty in the matter, we do most respectfully submit that the United States and Canada cannot achieve the proud position of having uniformly clean herds by the exclusion of diseased animals alone. The educational question at home of the two is by all means the more important and just as long as the veterinary authorities make the eradication of tuberculosis so difficult and costly it will never be accomplished."

Referring to the reliability of the tuberculin test, Messrs. Edwards & Co. say:

"In a very small percentage of cases it may fail, but in our judgment the percentage is so small that no successful argument can be made against the test on this score, and until some better agency is discovered for the purpose required we shall be content to use it on our various herds. As to injury from the test, we have absolutely failed to detect any. We have had cows tested at almost every stage of pregnancy, from a few weeks after service till a week or two before calving, and we have had calves tested from a few weeks old onward at all ages and we have never had one cow abort as a result nor have we been able to detect any injurious effect on any animal we have had tested."

They concluded their letter as follows:

"And now finally we desire to say this, that perfectly sound animals can be raised not only from diseased dams but from diseased dams and sires, and the primary requisites are as much outdoor life as possible, good, wholesome food at all times and when the cattle are housed abundant room for each animal, not too close housing, good sanitary conditions, good

ventilation and abundant sunlight. Plenty of windows together with the other requisites are most important. As to further treatment, we would advise proceeding according to conditions. The size and value of the herd is an important matter as well also as the financial position of the owners. Where the owner has but a few animals of small value and the disease is found to exist we would recommend fattening the animals and turning them off for beef under proper inspection, cleansing the premises and beginning anew with assuredly sound animals. But with larger herds and valuable animals we would recommend the application of the Bang system, observing the practice we have given here as closely as it can be done, making the best separation the conditions and financial position of the breeder will permit. But under no conditions allow a broken down or breaking down animal to remain in the herd one day. Let no breeder for one moment suppose that because his cattle are in fine sleek condition and healthy appearance that he may not have tuberculosis throughout his herd and while he may go on for years under perhaps this favorable condition without having one animal break down, yet he must recognize that he and his fellow-breeders of pure-bred cattle are the very foundation of the stock interests of the country and the aim of every loyal breeder should be to disseminate sound and healthy animals for improving purposes for the general herds instead of disseminating, as unfortunately is often the case, disease which under the less favorable conditions of the ordinary farmer must go on increasing. It is not only possible but reasonably possible for the United States and Canada to possess sound and healthy herds. It should be the pride and ambition of the breeders generally who are at the foundation of our great industry that this highly desirable condition shall prevail, and from our experience we cannot too strongly urge upon our fellow-breeders united action toward this most highly desirable achievement."

Winter Wheats for Milling.

A large deputation of millers from various parts of the province visited the Ontario Agricultural College at Guelph, a week ago, for the purpose of consulting with Prof. Harcourt and C. A. Zavitz, Experimentalist, as to the best varieties of winter wheats for milling purposes. The millers are anxious to get a harder wheat than Dawson's Golden Chaff, grown largely throughout the Dominion. After examining the varieties of winter wheats grown on the experimental plots in 1907, the millers recommend the extensive growing of the Michigan Amber and the Turkey Red of the red wheats, and the early Genesee Giant and Bulgarian of the white wheats. These varieties, though not quite as stiff in the

straw or as good yielders as Dawson's Golden Chaff, are better suited to the needs of the milling trade.

Water in Butter.

The Department of Agriculture has been advised by cable through the High Commissioner's Office, that the Board of Agriculture for Great Britain have made regulations under the Sale of Food and Drugs Act, 1899, whereby, if a sample of butter is found to contain over 16 per cent. of water, it shall be considered not genuine, unless proved to the contrary.

Mr. J. A. Ruddick, Chief of the Dairy Division, and Acting Commissioner in Professor Robertson's absence, says the regulation will not affect the Canadian butter trade to any great extent unless dealers should require a guarantee that butter which they produce does not contain water in excess of the limit. With proper cooling facilities at the creameries so that the churning, washing and working of the butter may be carried out at sufficiently low temperatures, there is no difficulty in producing a butter which is well within the limit as regards the amount of water in considered to be about the proper it. From 12 to 13 per cent. is the proportion of water in butter.

More Security for Investors Needed.

A year ago in dealing with the subject of investments we warned farmers against accepting the rosy prospects pictured by promoters who are making a bid for their spare cash. We also said: "It is high time that our governments, both federal and provincial, turned their attention to this matter. Some limit should certainly be imposed upon provisional directors in the matter of promises made in their prospectuses. If necessary, the prospectus of the proposed company should form part of the application for charter, and it should contain the conditions and inducements to be presented to prospective shareholders."

Since the above was written, nothing has transpired to change our views regarding investments. In fact our convictions are stronger than ever that some legislation is desirable to compel promoters of companies seeking investments to give more details and fuller information in their announcements through the press and elsewhere. The rights of the investor should be protected. Our position in this regard is well sustained by Mr. P. D. Crerar, in a letter to The Globe, a few days ago. The following extract from his letter is well worth considering by everyone interested in the development of the industrial resources of Canada:

"I have studied with some care every Canadian prospectus which has come to my notice during the past three years, and I have not seen one which informed an intending subscriber what he ought above

all things to be told, namely, what disposition was to be made of the moneys to be derived from the sale of shares; how much was to go to purchasing this or that property or asset; how much was to be retained as working capital; and how much was to be paid out to or retained by the promoters of the company as an honorarium for their promotion services."

Canadians in the Egg Trade.

The frequent mention of late of Americans as likely to engage largely in the buying of eggs in Canada this season might lead some to conclude that we had no Canadian dealers of repute. But such is not the case. There are a number of Canadian dealers of repute who every year deal largely in Canadian eggs, but like many of their fellow countrymen are too modest to keep their names before the public as the Americans do. He knows of three dealers who handle about 900,000 dozen of eggs per annum. If these were sent to the United States the duty on them would amount to \$45,000. There is some talk of Canadian dealers shipping to the United States this summer, as prices there are very high. So far as we know, there has not been a carload of Canadian eggs sent to the United States for years. But as local prices here are high and the English trade not brisk, Canadian dealers may be compelled to seek the American market to get out even. At least that is the way some of them are talking.

Influence of Age on Cost of Beef

Among the interesting experiments conducted at the Central Experimental Farm, by the Agriculturist, J. H. Grisdale, is one dealing with the above: The cost to produce 100 pounds increase in live weight feeding steers at different ages being the point to determine, the results are shown in the following table:

To produce 100 lbs. live weight:
Results, 1900—Calves, \$4.16;
yearlings, \$5; two-year-olds, \$6.20;
three-year-olds, \$6.80.

Results, 1901—Calves, \$3.25;
yearlings, \$5.77; two-year-olds,
\$5.71; three-year-olds, \$6.37.

Average two years—Calves,
\$3.70; yearlings, \$5.38; two-year-olds,
\$5.95; three-year-olds, 6.59.

Increase over preceding class—
Calves, \$1.8; two-year-olds, \$7;
three-year-olds, 64c.

These results show clearly the advisability of feeding off fat cattle at as early an age as possible, or at as early an age as will insure a high price.

Uncle Benjamin—What yoh gib me loah mah hoss?

Rastus—Ah" gib yoh a load o' hay; dat's a fair bargain.

Uncle Benjamin—Yoh gib me a load ob hay? An' what d'yoh expect Ah'll do wid the hay an' no hoss to eat it?

Rastus—Ah'll len' yoh d' hoss till he's got it eat up.

The Art of Good Milking

A great deal of the milking of the present day is done in a slipshod manner. The development of the milking qualities of the cow depends in no small degree upon the way the milking is done, and also the profitableness of the business will depend upon how cleanly and how completely the milk is taken from the udder. In Denmark they have the art of milking down to a science, as the following essay on the subject, by Mr. J. Peterson, of Dalum Agricultural College, Denmark, shows:

The object of milking is to empty—as completely as possible—all the milk present in the udder, and in such a way that the cow finds it a pleasant sensation, and that the milk is kept clean.

The cow is by nature meant to nourish its young. We ought, therefore, to learn from the calf. The latter does not suck its mother in a brutal manner—on the contrary, it knows by instinct that if it wants the milk it must behave properly. Therefore it never grabs a teat at once, but asks, by touching the belly and then the udder, if it may.

The milker ought to begin by speaking kindly to the cow, patting it, and afterwards with the back of the hand rubbing it gently on the belly and udder. By this means one not only puts the cow into a good temper, but the rubbing helps to get rid of loose hairs, scales and dust, etc., which otherwise easily find their way into the milk pail.

Next the milk pail is placed (always on the same side of the same cow), and the work is begun by catching hold by both the front teats with the whole hands. The hands are now in turn moved up against the udder with a gentle pressure and they are then closed slowly and softly (likewise in turn) about the teat, the closing beginning at the top and extending downwards.

These gentle movements should be continued until one notices that the cow lets the milk "come." The milk must now be emptied out in long unbroken jets by means of the same movements of the hands as before, but applied with more vigor than at the beginning. For every fresh grip the hand ought to exert a new pressure up against the udder, while at the same moment the first finger and thumb should grasp that portion of the udder which lies exactly above the teat. During this part of the milking the conscientious milker ought to fix the whole of his attention on his work, since every interruption means a loss of milk. Hence all loud talk or noise, which disturbs the cow as well as the man, is to be strictly avoided. A good evening song need not, however, be out of place.

When the front teats give no more milk, the work is carried on

—with the preliminaries of patting, rubbing, and so on—in the same way as regards the back teats.

The milk must be squeezed—not dragged—out of the teat. The teat should, therefore, be grasped with the whole hand, and the latter must not slide up and down the teat more than necessary. The sort of milking which is carried out by grasping the top of the teat with the thumb and first finger (the latter is the worse) and then pressing the fingers together and dragging them down the teat, is very bad indeed. The cow does not like it since it irritates the skin of the teat, and easily causes sores, and it is really much harder work for the milker.

In the case of those heifers, however, whose teats are too short for the whole hand to grasp them, the finger must of course be used.

The milking is not over, even when the back teats (or the last milked) give no more milk. A vigorous second milking must now take place. After one has again changed a few times from the first milked to the last milked teat and back again, the udder must be "worked" by means of gentle handling and afterwards the last drops of milk must be squeezed out of the teats.

Here we could also learn from nature. Look at the lamb when it sucks! See how it pushes its mother's udder when the teat gives too little milk.

The little pig also can be seen poking its mother by means of its soft snout, so as to get all the milk possible.

One would almost think that they found the last milk sweeter than the first! So they no doubt do, as it has been proved by a number of investigations that it is by far the richest.

If the first half pounds of milk are mixed (equal amounts being taken from the four teats) from each of say 40 cows, the 20 pounds of milk thus collected will as a rule not even produce half a pound of butter.

But if in the same way one were to collect the last half pounds, which after inadequate milking can still be worked out of the udders of the same 40 cows, nearly two pounds of butter can be got out of the 20 pounds of milk.

Any milker can roughly prove this for himself. Collect the first jet from a teat in a small glass, and the last jet (or the last drops) which can be squeezed out of the same teat in another glass. Place the two small glasses in a cool place; and after 24 hours it is astonishing to see the great difference there is in the layer of cream. Getting out all the possible milk is therefore of importance, not only for the development of the cow's power of giving milk, but also for obtaining rich milk. Thus,

the milker who does not take sufficient time to milk the cow quite dry, either does not know her or his work, or is not carrying it out conscientiously.

After the milking is finished the cow should again be patted in a soothing way, and a kind word may again be said to her.

The milker should always keep an eye on the state of health of the udder and teats. If swellings or lumps or tenderness in the udder, sores on the teats, or blocked milk channels are observed, or the milk looks unnatural (for example, lumpy, reddish, etc.), the owner, or other responsible person, should be at once informed.

As diseases of the udder and teats are often infectious, such cows should always be milked last, and the milk from the diseased udder be carefully put in a separate pail and thoroughly disinfected (and then thrown away, of course) or thrown away where it cannot spread the infection.

The milk canal inside the teat is occasionally very narrow, or has a frequent tendency to get blocked. To make use of a straw or such means to clear it, is very wrong, as it can set up inflammation in the corresponding gland. A teat with a blocked milk canal should be rolled gently between the hands held out flat and then carefully milked.

After the first calf the heifer is apt to feel tender and hence inclined to object to the milker's touch. This tenderness lasts, in a few cases, to the later years. In such cases one must set about milking with even greater gentleness and care. Nothing but kindness should be used unless the cow is very "wicked."

To milk quite dry, as a means of increasing the milk-giving power of a cow, is especially important in the case of a heifer after its first calf; since it acts with even greater power on the heifer than on the older cow.

It would be a good thing if every milker was provided with two smocks of washable material, one being always in the wash or clean, so that a clean one may be put on at least once a week. As one ought to milk with bare arms, these blouses should have short sleeves and be made so that they can easily be slipped on over the ordinary dress.

In wet weather, when milking is done out of doors, a waterproof cloak is almost a necessity.

It should be a point of honor for the milker to see that all pails, etc., in which the milk is collected should be absolutely clean. This scrupulous cleanliness is of course a necessity. The pails, etc., are best made of tin-plated steel and must not be allowed to rust.

Complete cleaning is best and most easily done as follows:—Immediately they are finished with, the pails are washed with two or three lots of cold water; afterwards they are completely covered both inside and outside with thick

line water, then scrubbed with cold water, rinsed and washed again two or three times in clean cold water and finally in clean boiling water, and then allowed to drain dry in the open air; they must not be wiped with a cloth, nor with anything else.

Be it morning, noon or evening, the hands must be carefully washed before going to milking, and if the milking is done indoors, one should always wash and dry the hands whenever they get dirty.

For the sake of cleanliness it is best to milk with dry hands.

Whoever has the care of the cows, it should be their object to keep them clean. If the udder is in a filthy condition it must, before milking is begun, be washed clean with lukewarm water and rubbed dry with a piece of cloth.

Milk has great capacity for absorbing gases from the air, and since it offers an extensive surface as it jets through the air between the teat and pail, the air in the shed should—especially during milking—be kept as pure as one can possibly keep it. For this reason, if the cows are indoors, they should be made to stand up a little while before milking begins. They will then probably get rid of their manure. Afterwards all available doors and windows should be opened for a few minutes, the litter is arranged and things put in order, so that everything is as it should be when the milking is to begin.

Light helps to keep the air pure, so one should always have plenty of daylight in the shed; and if the cows are milked indoors in the dark winter mornings and evenings, plenty of lantern light gives a better chance of good and clean milking.

MILKING TIMES.

If a cow is milked three times every twenty-four hours the milk obtained is both more abundant and richer than if milking takes place only twice a day. But whether one milks three times or only twice daily, the times between the milkings should always be as nearly as possible of the same length. The cow is a creature of habit; her udder works steadily and regularly. Hence the milking times should be most carefully kept, and the same pair of hands should milk the same cows in the same order. If milking is begun too late the cow becomes restless, and as regards those which give much milk the tension in the udder can give pain—in all cases milk is lost.

Altogether, it ought to be clearly realized, that the cow repays all unpleasantness by giving less milk.

Winter Wheat.

Bulletin No. 72 of the Nebraska Experiment Station contains the results of five years' experiments with winter wheat.

Of the 118 varieties of winter wheat tested during the last five

years, Turkish Red and Big Frame have—hardness and yield considered—been the best.

Some Russian varieties of wheat tested indicate great hardness, and promise well for the northern portion of the State, especially if they can be made to mature earlier.

The selection of large, heavy kernels for seed resulted, on the whole, in increasing substantially the

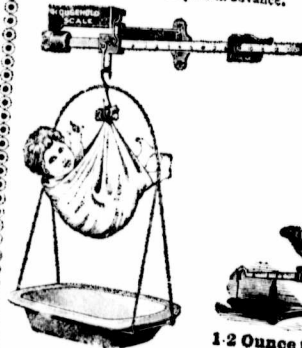
yield over seed wheat not so selected.

Wheats of the same variety, but grown in different portions of the country, when grown side by side showed much difference in their habits of growth, which were greatly to the disadvantage of the seed grown east of the Missouri river.

The yields of these wheats were nearly proportional to their tendency to early maturity.

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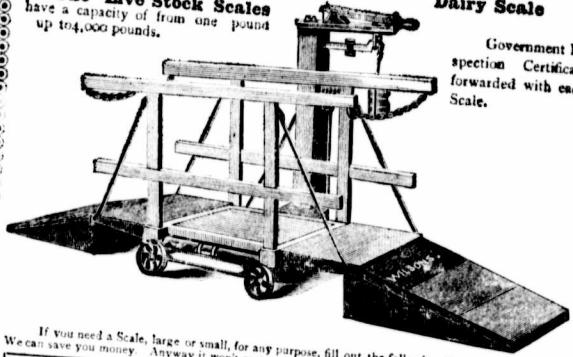
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The Production of Canadian Bacon

Some Notes on Experiments at the Central Experimental Farm

Experiments in pork production were commenced at the Central Experimental Farm, at Ottawa in 1890, by Professor J. W. Robertson, who up to 1896 was agriculturist; the work was continued from 1896 to 1899 by Dr. W. Saunders, the Director of Experimental Farms in the Dominion; and for the balance of the decade was supervised by Mr. J. H. Grisdale, B. Agr., the present Agriculturist.

The breeds introduced in 1890 were Berkshires, Improved Large Yorkshires, and Essex. Since then Chester Whites, Poland-Chinas, and Tamworths have been secured, while the Essex has been discarded.

The result of the ten years' experiments has been to prove the Yorkshire-Tamworth cross to be the best fitted to suit the market to-day. The Yorkshire-Berkshire cross proved, however, a growthy pig, and well fitted for general use. Where quick growth and early maturity are especially desired the Berkshire-Tamworth cross will fill the bill.

Where these breeds have been crossed with the Chester White, the Poland-China, or the Essex, the get, in most cases, has proved to be of a rather short, blocky type.



Pair of Large Black Swine imported by Experimental Farm, the first of the breed to reach America. Are of the bacon type. They are being crossed with Tamworths, Yorkshires and Berkshires to determine their value to Canadian bacon breeds.

They have, on the whole, exhibited a strong tendency to lay on fat rather than develop muscular tissue.

The ten years' experiments in feeding indicate that it will not pay to cook feed for swine where economy of pork production is the sole consideration. There is a gradual increase in the quantity of feed consumed for every pound of gain in live weight after the average live weight exceeds 100 pounds.

The most economical time to slaughter swine is when they weigh from 175 to 200 pounds.

The greatest and most economical gains are made when the swine are able to eat the most feed in proportion to their weight.

Frozen wheat may be used as a profitable feed for swine. Skim-milk adds most materially to the value of a grain ration, and 100 pounds of mixed grains equal about 700 pounds of skim-milk. The relative value of skim-milk in any ra-

tion varies with the amount fed, the poorest returns per pound fed being obtained when the proportion of skim-milk to the total food is the greatest.

The average dressed weight of swine is about 76.44 per cent. of the fasted weight.

When hard flesh is desired skim-milk is a most valuable addition to the grain ration. Feeding mixed meal (barley, peas, and oats) with milk will generally insure firm meat. The greatest gains from a given amount of grain have been shown when it is ground, as a part of grain fed whole gets frequently voided before being digested. Mixed grains are more economical than grains fed pure.

In one set of experiments in which ground grain was fed dry and compared with ground grain fed soaked, the data pointed to a slight loss from soaking meal. While this may not be the actual case it is probable that the result from soaking meal may not be so marked as from soaking whole grain.

The type of animals fed influences the character of the meat more than the breed. The fact of an animal being a Yorkshire or a Tamworth will not insure a good bacon carcass; it must also be of a rangy type, and be fed in a certain way. Pigs whose rations are limited make, generally, more economical gains than pigs that are rushed; and maturity or ripeness of the animal affects the quality of the flesh.

A series of experiments was conducted to discover the effect on the quality of the meat and cured bacon from the feeding of wheat and buckwheat to swine, in view of the fact that many persons attributed "softness" in hogs to feeding wheat or buckwheat. The result showed that the feeding of either wheat or buckwheat alone is not always a cause of "soft" hogs and "soft" sides; because some of the swine fed in each way yielded sides classed as firm.

Hogs should never be given more feed at one time than they will eat clean, and still have an appetite for more. Overfeeding keeps the animals from being active in taking exercise; and that causes them to grow too fat and "soft". It is a good plan to feed as much as they will consume and digest to advantage. That will keep them hungry for every meal. Regularity in the time of feeding will cause more rapid gain in weight than when there is irregularity even to the extent of one hour in the meal time.

The feed of swine should be reasonably clean; it should never be putrid.

When the hogs are being fattened they may with advantage have an allowance of a condiment of one of the following sorts:—earthen soda; a mixture of wood ashes and salt, at the rate of one bushel of

ashes to six pounds of salt; a mixture composed of 6 bushels of charcoal broken into pieces the size of a hazel nut, 6 pounds of salt, 1 bushel of wheat shorts thoroughly mixed, sprinkled with a pailful of water, in which a pound and a quarter of coppers has been dissolved; or, 1 bushel of wood ashes; 4 lbs. of charcoal, 6 lbs. of salt, sprinkled with a quantity of water in which a pound of coppers has been dissolved. Either one of these condiments may be put in a place where the hogs will have access to it and a chance to consume all they like. This is to take the place of the soil which the hog would naturally swallow in its feed if it were rooting in the ground.

So far as the kind of feed causes "softness" in the sides of bacon, experiments indicate it to be due to the use of feeds which furnish sufficient nourishment to the pigs, and to the want of exercise.

There are no farm animals that can be made to yield as large a profit as well-managed pigs—none that will so readily respond to efforts at improvement, in breeding and feeding; and none degenerate so rapidly under a system of neglect and mismanagement. They require warm, dry sleeping places; damp, cold, unsanitary pens are ruinous to the health of pigs. They are better for exercise in an open straw yard, but they should have a dry, warm, well-lighted pen, with a southern aspect, to retire into. Their troughs should be kept per-



Shropshire Ram recently imported by the Central Experimental Farm from Minton's Black, Shrewsbury, England.

fectly clean by frequent washings—their pens should be cleaned as regularly as those of horses or cattle. They should be so constructed that water can be freely employed in washing them out. Thirty per cent. creolin solutions should be frequently sprayed over the entire pen. The young pigs and shoats should be dipped once a fortnight in a ten per cent. solution of creolin in tepid water. This will remove parasites, relieve skin irritation, and cause the animals to thrive much better than they will do without this treatment. Improved sanitation will lessen the tendency to verminous infection, by destroying the ova, which in cold, damp, undrained, unhealthy corners of underground buildings usually abound.

Care of Young Lambs

In these days when early maturity in live stock is demanded the farmer must pay more attention to the feeding and caring for his young stock. This is especially so with calves and lambs. In beef it is the early matured and early fatted animal that makes for its owner the largest profit. And so with lambs the ones that grow and mature quickest are the most profitable. But no live stock, whether bred for the purpose or not, can be brought to early maturity, unless they are taken care of and well fed from the time they are born. There should be no neglect, not even for a day. The slightest neglect either in care or attention will only lengthen the time of maturity and if persisted in prevent the animal from ever reaching that stage of maturity and development for which it was designed.

Young lambs should be fed as carefully as the ewes. After they are three weeks old they will begin nibbling at the hay, grain or roots which the ewes are eating. This should be taken advantage of by making provision to feed the lambs separate from the ewes. This is most easily done by providing a creep. Lambs will quickly acquire the habit of passing in and out of an opening in a partition. The lambs should then be fed hay, grain, and finely pulped roots, and the refuse removed before new food is put in. The younger an animal the stouter it needs attending to. Of the grain needs, fed bran should form a good share of the ration. Bran and finely ground corn make a mixture that is much relished by lambs. Bran and ground oats with a slight addition of peas are also good. Oats are perhaps the best single grain food for sheep at all ages. The addition of a little alfalfa to any grain mixture adds much to its value.

If the rain lambs are not to be kept for breeding purposes they should be castrated when about ten days old and in any case should be docked at this age. Wether lambs feed more quickly and flesh up better than ram lambs and also sell better. In a flock therefore kept for the butcher's trade, early castration should not be neglected. The number of "bucks" sold on Toronto market every week is away out of proportion to the demand for breeding purposes. Farmers should aim to have ewes and wethers for the high class mutton trade.

Two for a Pound. The drawing teacher had been giving a lesson had given examples. The teacher wanted more, but no one could think of any. Finally a boy said, "I know a good cube shall I point of butter?" "Why, that is excellent," cried the teacher. "Now, who can give me another example, as good as Henry's?" After a long time she saw a hand waving wildly in the back of the room. "Well, Willie, what is it?" "Why, the other half-pound of that butter," said Willie, triumphantly.

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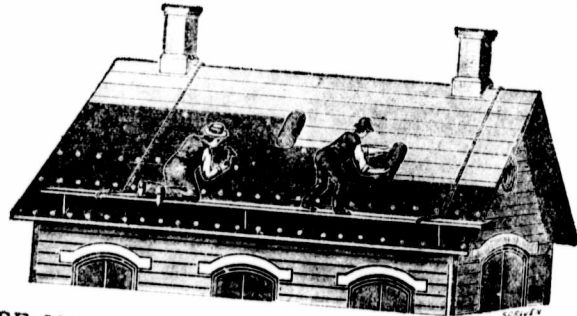
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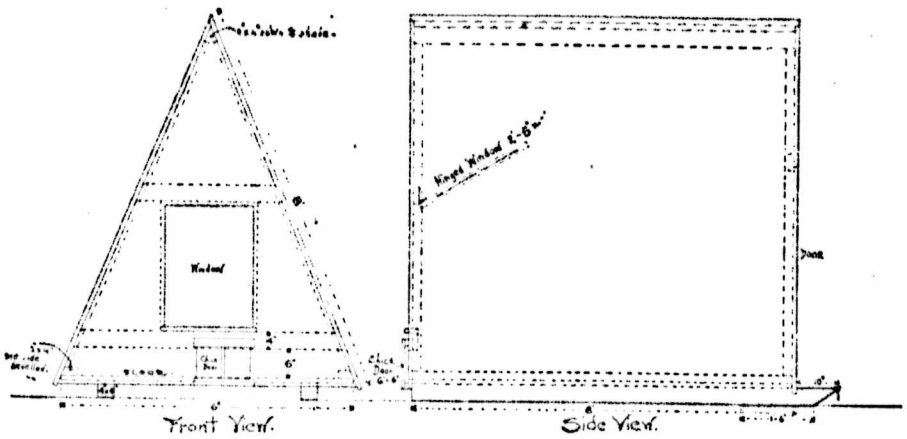
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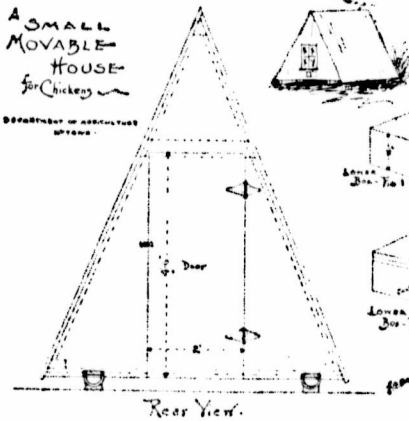
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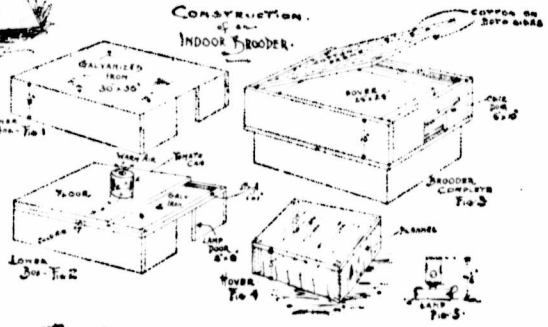
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A SMALL MOVABLE HOUSE for Chickens



CONSTRUCTION OF AN INDOOR BROODER.



A Moveable House and Brooder

By F. C. Hare, Chief of Poultry Division, Department of Agriculture, Ottawa

To obtain the best results in rearing chickens by artificial means, they should be housed from birth in a brooder or house in which they can secure a large amount of exercise in all kinds of weather. When operating an outdoor brooder it is advisable to attach to the brooder a bright covered run. One of the most successful plans of rearing chickens is to construct a small moveable house, that is bright and well ventilated at all times, and to place in this house an indoor brooder in which the chicks can be made comfortable for the first month or six weeks. Such a house is herewith illustrated, and also an indoor brooder that can be satisfactorily placed inside it.

The house shown in the drawing is eight feet long and six feet wide at the floor, and about seven and a half feet high. In the south end of the house there is a hinged window two feet six inches long and two feet wide, and in the north end there is a door two feet wide and four feet six inches high. At the

north end of the house there are two rings to which a chain can be attached for hauling.

In constructing the house, two pieces of 4 x 4 stuff are cut eight feet ten inches long, and on these a floor six feet by eight feet is laid. At each of the eight feet sides of the floor a 2 x 1 scantling with the outer side bevelled is nailed. This scantling must be well secured, and it is advisable to clinch the nails underneath the floor. The boards for the slanting sides can then be cut eight feet long. Two boards are fastened in position at each end, and the triangular piece at the vertex is set in. The side boards are then nailed along, and after the sides are finished, four pieces three inches wide are nailed on the slanting pieces one inch inside each end to receive the front and the rear end boards, and the cross pieces in the front and rear are also placed in. The two cross pieces in front are above and below the window, and the bottom of the window is eleven

inches from the floor. The cross piece in the rear is four feet three inches from the floor.

The front is then boarded up, leaving a space for the window. The window is hinged at the top. In the front there is also a chick door six inches square, with a slide to cover it. The rear end has a door fitted in. The 4 x 4 pieces underneath the floor are cut diagonally at the rear end and are ironed for eighteen inches from the end, and the rings are placed here for hauling. The house is made throughout of matched lumber and should receive two coats of paint after it is finished.

INDOOR BROODER.

While this indoor brooder is intended to be operated in the small triangular house, it can be run successfully in any covered room. In the colder months of the year, it can be placed in a vacant room in a dwelling, and can be used to rear early chickens for a special summer trade. In another article,

the outdoor attachment to this brooder will be described. By its addition the indoor brooder may be converted into a satisfactory outdoor brooder. The construction of the indoor brooder is as follows:—

Four boards are nailed together to form a frame 8 inches high and 30 x 36 outside dimensions. This frame is covered on one side with a piece of galvanized iron 30 x 36 and a door is sawn out for the lamp 8 inches wide in the centre of one of the ends (Fig. 1). When the galvanized iron is nailed on the top of the frame 1 x 1 strips are nailed around the outside. At one place in the side (B, Fig. 2) the strip is broken for two inches. On the top of the strips the floor is placed, but before the floor is fastened a hole should be sawn out in the centre for a tomato can. This can should have a 1½ inch hole punched in the bottom of it. It is nailed in the floor with the open end downward, and it should not project beneath the floor board.

Another frame is made ten inches deep and large enough to go over the first box. A chick door 6 x 10 is sawn in one end (Fig. 3). A frame of one inch square stuff and covered on both sides with cotton is made to fit down inside the larger box. Strips are nailed on the sides of the box to prevent this frame from going down beneath the level of the top.

The hover (Fig. 4) is two feet square, and it rests on four legs 4 inches long. The top of the hover is made of one-half inch wood. Around the sides are pieces 1½ inches deep and two strips of flannel about four inches wide. This flannel should be cut four inches apart and alternately so as to prevent the escape of heat. The hover is placed above the tomato can in the middle of the brooder. (Fig. 5).

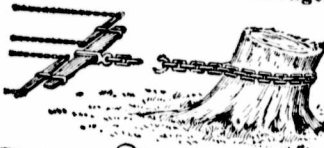
The lamp is of galvanized iron and the base is 2 inches in diameter and 2 inches deep. There is a brass collar soldered on the oil fount for the burner, and a screw cap for filling. An ordinary large size burner is used, and the chimney is of tin and 3 inches in diameter. A one and a half inch hole is punched out of the chimney, and a piece of mica set in in order to see the flame. The total height of the lamp is 7½ inches.

The heating arrangement of the brooder is as follows:—

The lamp is placed under the 30 x 36 galvanized iron directly below the tomato can. Cold air is drawn in from the opening in the one inch strip (B, Fig. 2), this air is heated by the lamp below the iron, and ascends and flows out of the hole in the top of the tomato can. This air warms the hover.

It should be noted that there is no opening in the galvanized iron. The smoke of the lamp must not come into the chicken compartment. One and one-half inch holes should be bored in the lower compartment of the brooder to give fresh air to the lamp.

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Dairying in the Territories

By William Newman, Butter Maker, Regina, N.W.T.

In looking into the future we are often helped, by considering the past, and we cannot rightly comprehend the prospect of dairying in the Territories, without first casting a look behind.

For some time all the butter the Territories had to offer, was dairy butter, which consisted of as many different qualities, as different dairies. In time a few creameries and cheese factories were started, that did better work and improved the quality a little. But these did not always have the best of management, and even where they did, the difficulties in a new country, made it very hard to make the industry a paying success. In fact it was not a success, because they did not have the proper cooling apparatus, and much of the product was ruined before it reached the market.

In 1897 the Dominion Government came to our assistance; taking the creameries then in existence, they properly equipped them with good machinery, and built new creameries where needed.

Each of these was placed under the management of a capable butter-maker, who was responsible to the Dairy Commissioner for his work.

By this plan the most of the creameries were placed under the best system, and the result was a very uniform article. The patrons coming in touch with the maker soon began to improve in their "care" of the cream which gave to the maker a better cream, and an A1 butter.

A refrigerator at every creamery and a large cold storage at Calgary enabled the butter to be kept in good condition until placed on the market. By shipping regularly to Calgary the country's produce was always near the British Columbia market and could be readily sent forward or held as the market demanded. This kept the market from being flooded and a better price was realized, which has been constantly improving.

As the farmers became acquainted with the advantages of the creamery, its patronage increased, until now many of these are paying very fair profits on the capital invested. Therefore at the present time we are building on a solid foundation, an industry which shall bring a large income to the dairy farmers of our fertile Territories.

Our greatest need is the co-operation of all concerned. If the farmers would all patronize the factory all creameries would pay large profits on the capital invested, which would mean that they could manufacture butter for less money. All the butter would be made in the best possible way, and the home market would not be crowded with an inferior quality of butter. This would mean greater consumption and better prices, which adds very much to our success.

Farmers must become patrons, patrons must learn how, and put in practice what they already know regarding the care of their cream. The cream hauler must learn what a good cream is like, and in a kindly manner show the patron where he is astray in caring for it. He must be careful in measuring, weighing and sampling. The butter-maker must help the cream hauler and teach him how to detect any bad flavors. In turn he must learn from him about the patrons and farmers. He must as far as lies in his power remove any grievances they may have, and be ever ready and willing to explain any of the problems which may be troubling them. He must strive to increase the output and improve the quality of his butter. In fact we must all help one another, and then, and only then, can we expect the best returns for our labors.

This we are trying to do, and with the bright prospect of a satisfied market with our last season's output, we are going on until we make the dairy produce of the Territories second to none.

Fertile Eggs.

It is most necessary that eggs should be fertile about the time they are desired for incubation, whether they are to be placed in an incubator or to be distributed under hens. Infertile eggs at such a time are an abomination, a delusion and a blaster of future hopes. The first essential in this direction will be to have healthy stock which had a healthy growth all through their growing stage, and the sexes should be as far from kinship as possible. It is also necessary that the parents be strong in vitality. The breeding stock can be too old or too young; too decrepit or too immature.

It is a matter of regret that no one can fully control fertility to its fullest extent, but it can be aided largely by mating and by giving proper care and attention prior to and during the incubation season. Exercise is necessary to procure the greatest fertility in eggs. A balanced ration will furnish not far from the right kind of food, which is not only essential to good health but to keep up that vigor so requisite in breeding stock of all kinds. The food should contain both animal matter and grains, and should be provided neither more nor less in quantity than is required. We would not only have the egg fertile, but we would have that fertility strong and vigorous. It is not enough that the egg will hatch, but it should also hatch a strong and vigorous chick that will live and overcome some of the strongest drawbacks known to the system of rearing chicks. What is the good to hatch a chick and have it die when a day or two old because of lack of vitality?—Poultry Farmer.

Poultry and Eggs.

Advertisements under this head one cent a word. Cash must accompany all orders under \$2.00. No display type or cuts allowed. Each initial and name for counts as one word.

BROWN Leghorns, Prolific early layers; Strain won at Pan-American. Stock for sale—Minorcas, Barred Rocks, Choicest Strains, Eggs in season. JOHN E. PETTIT, Fruitland, Ont.

THOROUGHBRED high scoring light Brahmas, Fivel White Rocks (direct), eggs \$2.00 per sitting. Barred Rocks, White Rocks, Buff Wyandottes, White Wyandottes, Brown Leghorns, Buff Cochins, Buff Cochins Bantams, Black Minorcas, \$1.00 per fifteen. No better stock anywhere. Leghorn Cockerels \$1.00. J. C. TEMPLEN, FERGUS, ONT.

EGGS from high class W. P. Rocks, winners at the big shows. Also Pekin Ducks. Also Belgian Hares. F. BRITSCHER, Palmerston, Ont.

EGGS for setting. Silver gray Dorkings from splendid stock. John Taylor, jr., Galt, Ont.

BUFF ORPINGTONS, imported this season from England, 8 birds costing \$125. Solid Buff eggs \$3 per 15. Also breeder of Brown Leghorns, continuous layers, Barred Rocks, E. B. Thompson's White Wyandottes, Indian Games, true bulky type for export. I won leading prizes and sweepstakes at the Ontario and Bradford shows. Incubator eggs \$2.00 per 15. J. W. CLARK, Importer and Breeder, Oneida, Ont.

EGGS, \$1.00 per 15. Barred and White Rocks, Silver and White Wyandottes, Black Spanish, Black Minorcas, White and Brown Leghorns. Our birds win at Ottawa, Guelph, and the leading shows. ALFALGH BROS., FERGUS, ONT.

EGGS FOR HATCHING reduced to \$1.00 per setting. High class Buff Leghorns, Barred and White Plymouth Rocks. Good hatch guaranteed. L. T. MCGIVERN, GALT, ONT.

PINE HILL STOCK FARM can supply eggs from the following varieties, choicest of stock: B. Langshans, L. Braunas, Barred and W. Rocks, G. S. L., and White Wyandottes, S. G. Dorkings, W. and S. L., and Buff Cochins and Golden Sealings, Brown Leghorns, Buff Cochins and Golden Sealings, Bantams, \$1.00 per 15 eggs; Pekin Duck eggs, \$1.00 per 15; M. Bronze Turkey eggs, \$2.00 per 9; Toulouse Game eggs, 40c each. D. A. GRAHAM & SON, Bradford, Ont.

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WRITE US.

The Sugar Beet World

Devoted to Sugar Beet Culture in Canada and Allied Industries. Specially
Representing the Farmers' Interests

Edited by JAMES FOWLER

Sugar Beetlets.

Be liberal with your beet seed. For the sake of a few pounds of seed you cannot afford to run the risk of a poor crop.

Secure your help now for the season, later you may not be able to.

Prepare your seed bed properly, everything depends upon laying a good foundation.

The person who best prepares his land, will get the best results.

It is the net return from the land that counts.

It makes no difference what it costs to raise a crop if the net returns are proportionally great.

While it costs more per acre to raise sugar beets than it does oats, the net returns from the average crops of beets are greater than the gross returns from oats.

Now is the season when the best sugar factory promoter bobs up. Every town in the province is to have a sugar factory, and let him tell it.

Three or four factories this year will tell the tale. See the results of the factories now building before building any more.

Sugar never was as cheap as at the present time. The price is bound to increase.

There is as much money in the working up of the by-products of a sugar factory, as in making sugar.

Go Easy.

The season of the year when the best sugar factory promoter appears upon the scene is now here, and we hear from all parts of the country that arrangements have been made for the building of a sugar factory and in every case, the conditions are the same, i.e., American capitalists have agreed to build a \$750,000 plant providing the local people raise \$100,000, and that the acreage can be secured. We are not sure that it is the same parties, in each and every case, but we have heard so much of it, that we would advise our readers to go easy on the matter until something tangible appears. Do not be induced to spend a lot of time and money in trying to float some wild-cat scheme. Do not be led away by big talk. It takes money to build a sugar factory and American capital is not to any extent looking for investment in the sugar business in Canada, nor are there many people at present in Canada looking for the same kind of an investment, nor will they be until they see the outcome of the present season's operations of the factories now building.

That there is a future for the beet sugar industry, no one familiar with the country and the business

will deny, but all locations are not suited for the raising of the beets and the successful operations of a sugar factory. Last season there were 22 sugar propositions in the air, and only three of them materialized, the same number will probably crop up again this year and possibly one or two might be built. Several localities have spent quite a large amount of money and many enterprising men have spent a great deal of time, following up propositions that there was nothing in, being led away by statements, that if any section would raise sufficient quantity of beets, they could get a sugar factory.

Dresden.

Messrs. Pierson and Goodrich commenced the erection of the steel work at the sugar factory at Dresden last week. On Monday a number of expert steel men arrived from Sebewaing, Mich., to assist in the erection here. On Wednesday a derrick was erected on the columns now erected for the first floor, to be used in raising the steel for the second floor. Work will be pushed forward rapidly now.

The foundations of the beet sheds were laid out on Thursday.

Brantford Also

The enterprising citizens of Brantford are making a move to secure a sugar factory for that city. Mr. Joseph Stratford, who has been successful in starting several important industries in that city has taken the initiative in this matter and if Brantford does not have a beet sugar factory before long we shall be very much mistaken. Mr. Stratford has received an offer from an American capitalist that the concern he represented would advance \$500,000 towards the erection of a beet sugar factory if the citizens of Brantford would provide the balance of \$100,000. Sugar beets will be grown in the Brantford section under government supervision in order to test the suitability of the district for this purpose. Already over twenty farmers have signified their intention to try a small plot this season.

The question of securing a factory came before the Brantford Board of Trade last week and was favorably received. The following resolution was unanimously carried:

That this Board recognizes the great importance of the beet root sugar industry to the province of Ontario, and more particularly the desirability of having a beet sugar factory located in the city of Brantford. It therefore commends this subject to the careful attention of the Council of the Board, in the hope that arrangements for the es-

tablishing of such an industry here may be made.

It further expresses satisfaction that the Ontario Government has consented to conduct experiments with a view to testing the adaptability of the soil in this district for the growth of the sugar beet, and promises to co-operate in every possible way in securing the carrying out of the necessary arrangements for said tests.

The Seeding of Sugar Beets.

READ BEFORE THE FARMERS' INSTITUTE, ROCKY FORD, COLORADO.

(BY WILLIAM WINTERHALFER.)

"The seeding of sugar beets" consists of the preliminary of "fall work" and the actual of "spring work," and in order to explain these two operations in detail, a general review of the soil condition is necessary as we have always to return from time to time to this most essential part in sugar beet culture—the seed bed, or rather the soil, out of which it is prepared.

Soil—Next to the climatical condition the soil is the most important factor in the culture of sugar beets, and every grower must be fully convinced that he has the kind of soil suitable for the cultivation of this crop, before he undertakes to engage in this branch of farming. The soil should be not too heavy and not too light—it should be deep and warm, and also have a warm sub-soil. Cold soils, which have invariably stagnant moisture, with no outflow, are the enemy of the crop, in fact, of all farm crops, as they diminish the quality as well as the quantity beyond calculation. Such soils are easily recognized, as they will always show standing water in low places after rain or irrigation, and wherever these signs appear drainage is necessary, though not always drainage of the entire area, as in many instances partial drainage has the desired effect. Very heavy soil, which, when saturated with the moisture of winter, forms heavy clods and is therefore in the spring only capable of tillage late and with difficulty, loses at once this tendency to form clods if the necessary quantity of lime is applied to it. Lime also gives warmth to the surface of the soil. We are fortunate, however, in having very little of such soil in this valley, as the soils of the arid regions are well supplied with lime, and therefore most of our heavy lands are worked comparatively easily when worked at the proper time. You are, no doubt, all aware of the fact that the presence of a sufficiency of lime in the soil is the most important condition of

all for the successful cultivation of sugar beets, and moreover for the production of all farm crops generally, and the yields of this year's crop amply prove the presence of this reliable soil ingredient in the Arkansas valley.

Condition of a Field Intended for a Sugar Beet Crop—In order to grow and mature to a perfect beet, the sugar beet needs a deeply loosened, well mellowed soil, which shows a uniform mixture and offers to the plant everywhere easily available and absorbable plant food. The soil must not be allowed to run together and thus offer resistance to the penetration of the atmosphere for the purpose of decomposing manure and plant food, as well as to the best development of the beet; it must be free from weeds and be in the proper condition to receive and retain moisture, as well as to dispose of a too large amount of the latter into the subsoil, and last but not least, it must possess a surface suitable for the germinating and growing of the seed. In order to achieve all these requirements and conditions different processes of work will have to be resorted to, according to the nature of the soil, as well as to the climatic conditions, but aside from these the experience of years has established certain rules which must be observed everywhere if a profitable crop shall be raised.

Fall Work—One of the principles of beet culture is the deep cultivation of the soil, and whatever the opinions of individual farmers may be on this particular point, nobody can deny the long-established fact that sugar beet raising and shallow cultivation can never successfully be practiced for any length of time, and a field that does not permit of deep plowing is unfit for a beet crop. The development of side roots of the beet is rather limited, since it forms in its earliest stage a tap root, whose quick penetration into the subsoil without resistance is of the greatest importance for the vitality of the plant, and this deep cultivation or rather deep plowing, through which a good many other conditions of the soil necessary for the growth of the beet plant are created, must be done in the fall, so that the new layer of soil brought to the surface by the plow is thoroughly mellowed and disintegrated through the climatical influences of the winter months. The work of the plow to be performed in the fall of the year varies with the condition of the field which is to be prepared for a sugar beet crop.

Beets After Grain—If beets are to follow grain, the stubble should be plowed shallow, three to four inches, immediately after the crop has been removed, and this for two reasons: First—It will prevent the sun from baking the surface of the stubble land which baking would prove quite an obstacle in plowing shallow; and second, in order to cover the large amount of weed seed always present after the harvest with fresh soil and thus force its germination and growth the

same year in which it has been produced, which weeds will be later on destroyed through the deep plowing to be performed the same fall. Should we plow deep immediately these weed seeds would be covered with a heavy layer of soil, which would prevent their germination, and the seeds would be dormant until brought nearer the surface again by the spring work, at which time they would then commence to sprout and grow with the crop sown into the land. Perennial weeds too, are either killed or considerably set back and weakened through a shallow plowing immediately after the removal of a grain crop. For this shallow plowing a gang plow of three or four shares is very advisable, as it lessens the cost of the work considerably and also increases the speed of performance. After this first shallow plowing the field should be harrowed and probably rolled, so that most of the weed seed can quickly germinate; then the field remains in this condition until the land is settled and has turned green again with the growth of the young weeds.

If it is the intention of the farmer to manure his land he should not hesitate to perform this work soon after the first plowing is finished, in order that the manure will be properly spread by the time the second and deep plowing is commenced. The deeper this plowing can be done in good, old cultivated ground, the better the results, and in Germany most of the old beet growers plow as deep as eighteen inches. Where, however, beet culture is a new industry, the grower must be careful not to bring too much new soil at once from the depth to the surface, but increase the depth of his plow furrow from two to three inches each year until he has reached the maximum depth of about fourteen or sixteen inches. I would say that from eight to ten inches deep plowing will be as much as I can conscientiously recommend here, where general farming has been practiced for a number of years and in such localities the subsoil plow is of great value to the sugar beet grower. In order to perform good plowing, it is advisable not to cut your furrows too wide, as narrow strips of land mellow more thoroughly; also, a greater speed of the team can be obtained and consequently a better turning of the soil.

Beets After Potatoes or Beets—If beets are to follow beets or potatoes, the shallow plowing is not necessary but by no means should the deep plowing be omitted, and moreover, it should be done before the winter sets in. In Europe, where siloed beets remain in the field sometimes until February, the beet growers plow their fields between the rows of siloes, which are from forty to sixty feet apart and contain from three to six tons to the silo, according to the yield of the crop. Besides the advantage of having the field in the rough furrow over winter, the beet tops are plowed under while more or less green, in which condition they have a higher fertilizer value than when fully dried up.

Spring Work—In the humid regions, where the retaining of winter moisture in the soil is of vital importance for the success of the crop, the first work in the spring should be the dragging of the land. Through the settling of the soil its capillary tubes reach a high stage of development and soon as the surface of the soil becomes somewhat dry, a continuous evaporation of moisture takes place through these tubes which is a great loss in a country where heavy spring winds prevail. The high ridges are especially exposed to the sun and wind, and consequently dry out much quicker, which is likewise the case with isolated lumps or clods of soil; and the longer the land lies undisturbed in the spring the dryer becomes these lumps and when later on, after being imbedded in the soft soil by a drag or roller, the seed is deposited in these dry spots in the soil, these kernels germinate much later than those which are surrounded by moist soil, which state of affairs accounts largely for an uneven coming up of the young plants right from the start, and proves later on very detrimental to the crop, as these late plants will never reach the size of the early beets. The early dragging of the land remedies these evils better than the harrowing and the soil of the mashed clods settles again and permits the formation of new capillary tubes, while all over the field a great saving of moisture is accomplished, as a thin layer of loose soil covers the openings of these capillary tubes. This operation can be generally recommended as very valuable, with the exception on heavy soils, which form a

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Will contract to build complete beet sugar plants, including all machinery and buildings; also furnish the necessary technical and skilled help to operate them.

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solid body after rainy weather, where dragging would be ineffective if not detrimental.

The drag is then to be followed by a harrow, but not immediately, in order that the dry clods which are pressed into the moist soil may have ample time to absorb moisture from the ground. If the fields were harrowed at once, after being dragged or leveled all clods would be brought to the surface again in the same condition as they were pressed into the soil. In irrigation districts, the leveling of the land should be done at this time of the season, the harrow and leveler being pulled over the field lengthwise and crosswise, as many times as necessary to put the field in perfect shape to permit an even flow of the water and a uniform irrigation of its entire surface.

The tools to be used for this work cannot be accurately described, as their weight and size depend upon the animal power available as well as the condition of the field and the quality of the soil. After the preliminary work the land should remain well harrowed until the time of seeding approaches. In order to be ready to receive the seed the soil must besides being in the proper physical condition have sufficient moisture and warmth to sprout the seed quickly and bring the young plants readily to the surface. The physical condition of the soil must be similar to that of a garden bed, and no pains should be spared in the preparation of the seed bed, which can be made perfect if the ground is worked at the proper time and by means of alternate use of a roller and harrows of different weight, it must be avoided to work the land when too wet, and thus pack it too much, while on the other hand the different operations must follow each other rapidly, in order to perform the preparation of the seed bed with as little loss of moisture as possible. The most desirable condition of the seed bed when fully prepared is to have the ground fine and solid from two to three inches from the surface, and below this have a layer of medium loose soil. Generally speaking, it is not advisable to plant into rolled ground, as there is danger of a blowing of the land in case of a heavy wind or of the crusting and baking of the surface to a more or less solid mass in case of rain. The seed bed should always be harrowed with a light one-horse harrow in the opposite direction from the drill rows, followed immediately by the seeder.

(To be continued.)

A little city girl had never before seen an ox with its large well-formed horns. "Oh, mamma!" she exclaimed, with wide-open eyes. "Just see that animal's handle bars."

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The Agricultural Gazette

The Official Bulletin of the Dominion Cattle, Sheep and Swine Breeders' Association, and of the Farmers' Institute System of the Province of Ontario.

THE DOMINION CATTLE, SHEEP, AND SWINE BREEDERS' ASSOCIATIONS.

Annual Membership Fees—Cattle Breeders', \$1; Sheep Breeders', \$1; Swine Breeders', \$2.
BENEFITS OF MEMBERSHIP.

Each member receives a free copy of each publication issued by the Association to which he belongs, during the year in which he is a member. In the case of the swine breeders' Association this includes a copy of the Swine Record.

A member of the swine breeders' Association is allowed to register pigs at 50c. per head; non-members are charged \$1.00 per head.

A member of the sheep breeders' Association is allowed to register sheep at 50c. per head, while non-members are charged \$1.00.

The name and address of each member, and the stock he has for sale are published once a month. Over 10,000 copies of this directory are mailed monthly. Copies are sent to each Agricultural College and each Experiment Station in Canada and the United States, also to prominent breeders and probable buyers resident in Canada, the United States and elsewhere.

A member of an Association will only be allowed to advertise stock corresponding to the Association to which he belongs; that is, to advertise cattle he must be a member of the Dominion Sheep Breeders' Association, to advertise sheep he must be a member of the Dominion Swine Breeders' Association, and to advertise swine he must be a member of the Dominion Sheep Breeders' Association.

The list of cattle, sheep and swine for sale will be published in the third issue of each month. Members having stock for sale, in order that they may be included in the gazette, are required to notify the undersigned by letter on or before the 1st of each month, of the number, breed, age, and sex of the animals. Should a member fail to do this his name will not appear in that issue, his data will be published in the most condensed form.

A. P. WESTERVELT, SECRETARY,
Parliament Buildings, Toronto, Ont.

FARM HELP EXCHANGE.

The Farm Help Exchange has been started with the object of bringing together employers of farm and domestic labor and the employees. Any person wishing to obtain a position on a farm or dairy, or any person wishing to employ help for farm or dairy, is requested to forward his or her name and full particulars to A. P. Westervelt, Secretary, Live Stock Associations, in the case of persons wishing to employ help, the following should be given: particulars as to the kind of work to be done, probable length of engagement, wages, etc. In the case of persons wishing employment, the following should be given: experience and references, age, particular department of farm work in which a position is desired, wages expected and where last employed.

These names when received together with particulars will be published FREE in the two following issues of the "Agricultural Gazette" and will afterwards be kept on file. Upon a request being received the particulars only will be published, the names being kept on file.

Every effort will be made to give all possible assistance, to the end that suitable workers, male or female, may be obtained. Every unemployed person wishing to engage in farm or dairy work is invited to take advantage of this opportunity.

Help Wanted.

Wanted—A good reliable man to do general farm work to be employed by the year or seven or eight months. Wages \$18 to \$20 per month. Farm near Owen Sound, No. 955. a.

Wanted a middle aged man with sober habits, or boy 15 or 17 years old, to work by year on 100 acre farm near London. Must be good hand with horses and good at milking. Willing to pay good wages to competent hand. No. 952. b.

Wanted two men for dairy farm near Ottawa. Must be of temperate habits. Old country agriculture hands preferred. Wages \$240 per year with board. No. 953. b.

Wanted. Applications have been received for young men to do general farm work on farms situated in different parts of Ontario. Fair wages offered. No. 954. b.

Situations Wanted.

Wanted a situation in British Columbia or the Northwest by a young man to do general farm work. No. 995. b.

Wanted a position by a young man on a farm, who has full knowledge of farming and is sober and industrious. Wages \$14 to \$16 a month or \$175 per year. No. 996. b.

Wanted situations for a number of young men on farms in Ontario or the Northwest. Some are not experienced and others are. No. 998. b.

Domestic Help Wanted

Wanted a position on a farm by a woman and a 14 year old boy. The boy to go to school and to work for board. The woman accustomed to farm work. No. 997. b.

N.B.—Where no name is mentioned in the advertisement, apply to A. P. Westervelt, Parliament Buildings, Toronto, giving number of advertisement.

Farmers' Institutes.

Under the head the Superintendent of Farmers' Institutes will each week publish matter relating to Institute work. This will include instruction to secretaries and other officers, general information about Institutes and Institute work, suggestions to delegates, etc. He will also from time to time review some of the published results of experiments conducted at the various Agricultural Colleges and Experiment Stations of Canada and the United States. In this way he hopes to give Institute members some valuable agricultural information which they might not otherwise receive, on account of not having access to the original publications. If any member at any time desires further information along any of the lines discussed, by applying to the Superintendent he will be put in direct communication with the Institution that has carried on the work.

G. C. CREELMAN,
Superintendent Farmers' Institutes

Farmers' Institutes.

MEMBERSHIP TO END OF APRIL, 1902.

It will be interesting to the officers and members of the different Institutes to know how these organizations are progressing in different parts of the province. Each year since organization the institutes have shown an increased membership, and we hope this is an index of the good work that is being done.

The several secretaries are to be congratulated upon the prompt manner in which they have sent in their returns.

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Perth, N.	312
Perth, S.	309
Peterboro, E.	170
Peterboro, W.	186
Prescott	130
Prince Edward	255
Renfrew, N.	92
Renfrew, S.	108
Russell	98
Simcoe, C.	204
Simcoe, E.	158
Simcoe, S.	226
Simcoe, W.	212
Stormont	141
St. Joseph Island	125
Victoria, E.	260
Victoria, W.	139
Waterloo, N.	375
Waterloo, S.	669

Welland.....	178
Wellington, C.....	407
Wellington, E.....	217
Wellington, S.....	174
Wellington, W.....	177
Union Br. West Wellington.....	134
Wentworth, N.....	307
Wentworth, S.....	355
York, E.....	235
York, N.....	94
York, W.....	129
Total.....	21,562

Women's Institutes.

MEMBERSHIP REPORTED FROM JANU-
ARY 1ST TO APRIL 30TH, 1902,
INCLUSIVE

There are now 45 Women's Institutes organized in the Province of Ontario. The following list shows just how the membership in each institute stands, the total being 2,564. It will be noted that four secretaries have not yet reported the number of members, but as these institutes were only organized this spring, we are expecting to have a report at an early date.

Amherst Island.....	54
Brant, S.....	23
Bruce, C.....	69
Bruce, S.....	106
Bruce W.....	74
Dufferin.....	48
Durham, E.....	100
Durham, W.....	20
Elgin, E.....	20
Essex, S.....	57
Grey, C.....
Grey, N.....	58
Grey, S.....	33
Halton.....	216
Hastings, E.....	169
Hastings, N.....	74
Hastings, W.....	61
Huron, E.....	54
Huron, S.....	17
Huron, W.....	67
Kent, E.....
Kent, W.....	10
Lincoln.....	155
Middlesex, E.....	9
Middlesex, W.....	45
Monck.....	27
Muskoka, S.....	16
Norfolk, N.....	17
Norfolk, S.....	15
Northumberland, E.....	57
Northumberland, W.....	33
Ontario, N.....	45
Ontario, S.....	90
Oxford, N.....	17
Peel.....	108
Peterboro, W.....	50
Simcoe, S.....	28
Simcoe, W.....	13
Victoria, E.....	106
Waterloo, N.....	33
Welland.....	50
Union (Branch W. Wellington).....	58
Wentworth, S.....	115
York, E.....	121
York, W.....	62
Total.....	2,564

Strawberry Culture

BY F. A. SHEPPARD, QUEENSTON

The growing of strawberries is a question that should interest every man, who has a farm or a garden.

A few years ago the average farmer had the idea that strawberry growing was something of a specialty and quite beyond the reach of the ordinary every-day farmer or stock raiser. This erroneous impression, I am pleased to say, is fast passing away and a good many farmers are now growing their own berries. But still there are many who do not, and I claim that at the present time, there is no excuse for a man who holds even a small bit of land, failing to provide a sufficient supply of fresh berries for his own table, and enough for preserving for the winter months.

The strawberry has many good points to recommend it. It is the first fruit to ripen in the spring after a long winter without fresh fruit. It will produce more fruit per acre or for space planted than any other fruit we have. It comes to maturity and into full bearing in a shorter space of time than any other fruit, yielding a full crop about thirteen months from the time of setting out the bed.

It succeeds on almost all soils and under almost all conditions and will grow and ripen over a wider range of territory and under a greater variation of temperature than most fruits and on account of its creeping habit of growth, is easily protected in very cold climate by a covering of straw or other mulch during the winter months.

I will briefly outline our way of planting and cultivating a strawberry bed, and while this is intended for field culture, still the same system is equally good for small patches or garden planting.

In choosing a site for a strawberry bed, I like a piece of land that has had some special cultivation during the past summer, and prefer a piece that has been in potatoes or roots and has been well cultivated, as the surface soil will be in a good fine condition and fairly free of weed seeds,—an important point in the after cultivation of the patch. Now, I would not plough this land deep under any consideration, because by so doing you would turn down your clean fine surface soil and turn up rough lumpy soil from the bottom, and full of weed seeds. If the soil is sandy and is situated so that no water will be on it, it will not be necessary to touch it at all in the fall, but if it is low land or a clay soil I would prefer to rib it up lightly with a shovel plough in the fall. To obtain the best results, it is important that you get to work on this land in the spring just as soon as the ground is dry enough to work for the purpose of establishing the soil mulch, to prevent evaporation and loss of moisture. Work it up fine to a depth of four or five inches, and keep the surface well stirred every few days with a harrow, until planting time. I usually plant about the tenth of May. Many growers plant earlier, but I think I can get my land in a better condition and keep it clean a good deal easier with a harrow

the first month than I can with hoe and cultivator.

We plant in rows four feet apart and set the plants two feet apart in the row, then when the runners start out we let them fill up between the plants and spread out side-wise until the rows are about fifteen inches wide.

We usually plant with a spade. After we have got the land in proper condition for planting we take a land roller and roll the surface down smooth. Then we have a marker made for the purpose with the runners two feet apart, every other runner being on hinges, and we mark the ground both ways, first cross-wise with the runners all down, making the marks 2 feet apart then go the other way, this time turning up the hinged runners and making the marks 4 feet apart, then put in a plant at every cross. We press the spade into the ground with the foot, (about six inches deep) then by moving the handle back and forth you open a slot in the rolled surface. Then by giving the plant a whipping motion into the slot you will spread the roots out in a fan shape. Now put your feet down, one on each side of the plant, and you will press the earth firmly against the roots of the plant, being careful always to have the crown of the plant level with the surface of the ground.

Before planting I always trim off any surplus leaves from the plants and nip out the fruit buds, as I do not wish them to bear any fruit the first year.

As soon as we are done planting I run the cultivator through to break up the crust formed by the roller and the tramping while setting out plants; keep the cultivator running through them at least once a week all summer, and go through with the hoe as often as is necessary for keeping down all weeds.

In planting a strawberry bed, there is one important point to remember, that strawberry plants are of two kinds, (staminate and pistilate) or in other words male and female. The staminate, or male plant, has a perfect flower and will produce fruit of its own accord, but the pistilate or female plant has an imperfect flower and unless it becomes fertilized by the pollen from some of the strong staminate varieties, will not produce fruit. A great many failures have been experienced on account of people not being aware of this deficiency in some kinds of plants. Ten years ago all of our best varieties were of the pistilate sort and we had to use them, but since then a lot of new varieties have been introduced, the majority of which are staminate varieties so that at the present time we have no need to plant pistilate varieties.

As to varieties that will depend some on your own local conditions and markets. The kind most popular in this section, (Niagara) at present are Beder Wood, Clyde, Glen Mary, Williams and Brandy Wine.

As soon as the ground is frozen hard enough in the fall to bear up

a wagon we cover the bed lightly with straw or other mulch, to protect them from heaving during the freezing and thawing of the spring months. When all danger of heaving is over and the plants begin to start, we go through and rake the straw off of the rows of plants and tramp it down firmly between the rows, where it serves a double purpose, viz., **helping to retain the moisture** and keep the sand from splashing upon the berries during a heavy shower of rain.

Soil Cultivation

BY MYRON A. GEE, FISHERVILLE, ONT.

The four great natural sources of national wealth are the productions of the soil, forests, mines and fisheries. The ore taken from the mines can never be replaced, the forests require centuries to grow another crop, the fisheries under modern methods are being depleted but the soil if intelligently tilled, a proper rotation of crops grown and a good selection of seeds sown, will produce year after year, for an indefinite period, good paying crops.

The three main principles of soil cultivation are (1) drainage, (2) manuring, (3) tillage. Drainage is first to be considered as no crop will yield satisfactorily if there is a surplus of surface.

Lands are drained by surface drainage and tile drains. Sandy

lands generally have natural drainage, needing neither ditches nor tile. Land that is well drained works easier and by being dry earlier in the spring, lengthens the season and by allowing earlier sowing increases the crop. It also prevents loss of plant food by absorbing it into the soil instead of allowing it to run off.

All crops should be fed on farm as far as possible and the manure taken good care of, if the fertility of the farm is to be maintained. Have the barn yard small so that it will be deeply bedded all over. Draw the manure directly from the stable to the field or else pile in compact heap, mixing all kinds together to prevent fire fanging. Farm yard manure both fertilizes the land and supplies humus. The humus improves mechanical texture of the land and prevents leeching, holds moisture, and by making the land darker in color it absorbs more from the sun, making the land warmer and causing a quicker and more vigorous germination of grains sown, which is a considerable factor in growing a heavy crop.

The vegetable matter of manure in decomposition acts mechanically on the mineral elements in the soil, making phosphates and potash available for the growing plants. Humus or vegetable matter (which is mostly nitrogenous) is the element lacking in nearly all impoverished fields and can be got by plow-

ing down clover and green catch crops and growing lots of peas.

The preparing of a seed bed is very important. It matters not how rich a field may be, if it is not in fine tilth so the particles of soil will firmly grasp the seeds, a partial crop will be the result. Land, especially clays, should not be touched when too wet. The land needs stirring to allow the heat and air to get at it to aid in preparing plant food. By having a fine mulch of dry soil on top of land it prevents moisture being pumped by sun and winds, arresting it just where the growing plants need it.

Tramping land by stock when wet, and pasturing the heart out of new clover catches, are two reasons why many farmers are not more productive than they are at present. Ontario must soon come to the day when intensive farming will be the practice rather than extensive as is now followed too much on a good many farms.

Children for Adoption

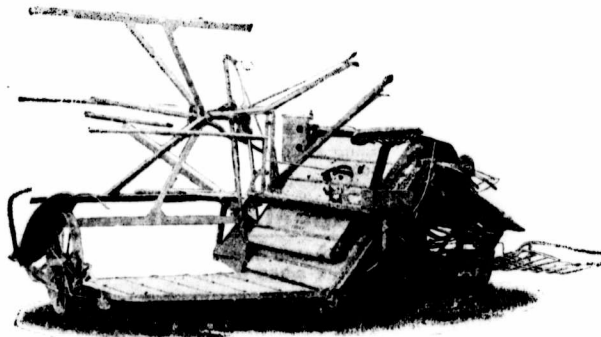
Mr. J. Stuart Coleman, secretary writes: Will you allow us to trouble you again with a list of little children, for whom homes of adoption are wanted.

For the little boy Lambert, in particular, a home is desired at an early date. He is a fine child.

One to four months:—Harold A., Margaret B., Aretta L. and Lily

THE NOXON OPEN-BACK BINDER

Is acknowledged by all Practical Farmers to be the best.



Some Special Features:

Built of Steel Throughout
Open Back
Removable Dividers
Telescopic Packer Shaft

Three Packers
Weight Trip
The Lightest Made
A Pair of Ponies Can Handle It

Runs Without Noise
Always Reliable
No Neckweight
Handles Tangled Grain Perfectly

Every Purchaser Gives a Testimonial

THE NOXON CO., Limited, INGERSOLL, ONT.

M. Fair complexion, brown hair and blue eyes.

Five to seven months.—Lambert R. and Wm. S. Fair complexion, fair hair and blue eyes.

Ten to thirteen months.—Alvin E. and Frederick T. Fair complexion, fair hair and blue eyes.

Twenty months.—Alfred F. Fair complexion, fair hair and blue eyes. Ethel E. Fair complexion, fair hair and brown eyes.

Three years.—Ernest D. Fair complexion, brown hair and grey eyes.

Five years.—Paul C. Fair complexion, fair hair and brown eyes.

At present the society has no older boys or girls for adoption, but is most desirous of getting good foster homes for all the above named children, as soon as possible.

Address the Secretary, Children's Aid Society, 11 Confederation Life Building, Toronto.

A Bounty for Wolves

The dweller in the older parts of Canada can hardly realize that that destructive animal the wolf is still doing duty in many of the newer portions of the country. But such is the case and parties interested in the development of these newer portions have to make provision against this destructive beast. In several of the provinces including Ontario, Quebec and New Brunswick a bounty of not less than \$15 each is being agitated so as to insure the trapping of wolves, which are becoming very detrimental to the game supply. The repeal of the wolf bounty in Quebec has greatly increased the number of wolves. Last year in addition to a number of sheep were also were destroyed by them. There has been a bounty law in force in Ontario of \$10 which two years ago was raised to \$15. This has worked well in the territory covered by the law. One of the gratifying effects has been that red deer were now to be found 150 miles further north than had ever been known before owing to the comparative freedom they now enjoyed from the attacks of wolves. Reports from New Brunswick show that a number of wolves have lately been seen in King's and Sunbury Counties and it would seem as if these much dreaded animals were gaining a foothold in that province. But not only in

\$50 Round Trip to California

Chicago & North-Western R'y from Chicago, May 27-June 8. The New Overland Limited, the luxurious every day train, leaves Chicago 8:00 p.m. Only three days en route. Unrivaled scenery. Variable routes. New Drawing Room Sleeping Cars and Compartment Cars. Observation Cars (with telephone). All meals in Dining Cars. Buffet Library Cars (with barber). Electric lighted throughout. Two other fast trains 10:00 a.m. and 11:30 p.m. daily. The best of everything. Daily and personally conducted tourist car excursions to California, Oregon and Washington. Apply to your nearest ticket agent or address

these provinces but in the West cattlemen are troubled by wolves to such an extent that strong efforts are necessary to cope with them.

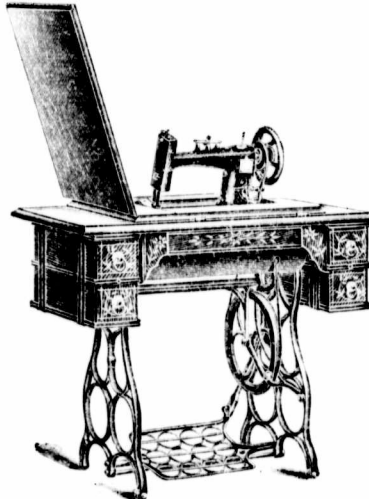
Two methods have been more or less generally used to destroy wolves, that of poisoning and trapping. Of these two plans probably the latter is the one most favored. But wolves are so wonderfully sagacious that even traps are of little avail unless extra precautions are taken. An effort must be made to lure the wolf to the trap which requires skill, patience and perseverance to accomplish it. A trap fre-

quently found in use is that of the Newhouse wolf trap. Ernest Thompson, Seton, has prepared a pamphlet "How to catch wolves," a copy of which may be had free on application to the Oneida Community, Limited, Niagara Falls, Ont. Those interested in the subject should send for a copy.

"It's lyuhd white folks put in heaps o' time," said Uncle Eben, "ahguvin' 'bout whethuh we's descended fum monkeys. Dat ain' de question. It's whut direction is we gwine now."

The Cabinet Sewing Machine

Sold by The Farming World at HALF PRICE.
Wholesale Profits and Agents' Expenses Cut Off.
HIGH GRADE GUARANTEED



Strong Points

Light running.
Great durability.
High arm.
Self-threading Shuttle.
Full set attachments free.

Instruction Book free.
Handsome Oak finish.
Guaranteed for five years.
Money back if not as represented.

What It Will Do:

Hemming, Felling, Tucking
Binding, Ruffling,
Hemstitching,
Puffing, Shirring, Quilting,
Under Braiding, etc., etc.

Cabinet No. 1

Handsome Oak Finish, with drop head and folding leaf. When the machine is not in use the head is out of sight and secure from dust. The stand forms a handy and ornamental table.

REGULAR PRICE, \$50.00

Cabinet No. 2

Same as No. 1, without drop head, but with neat protecting hood.

REGULAR PRICE, \$45.00

Special Half-Price Offer

No. 1—\$25, Payable \$5 down and \$2 a month for ten months.
No. 2—Payable \$4.50 down and \$2 a month for nine months.

A five-year Guarantee with every machine. Your money back if you want it.

THE FARMING WORLD

Confederation Life Building, Toronto.

I enclose \$.....for one Cabinet Sewing Machine, No.....

I will remit \$2.00 a month until \$.....has been paid.

Name.....

P.O.....

The Farm Home

Once in a While

Once in a while the sun shines out,
And the arching skies are a perfect blue;
Once in a while, 'mid clouds of
doubt
Hope's brightest star comes peep-
ing through,
Our paths lead down by the mea-
dows fair,
Where the sweetest blossoms nod
and smile,
And we lay aside our cross of care
Once in a while.

Once in a while within our own
We clasp the hand of a steadfast
friend;
Once in a while we hear a tone
Of love with the heart's own
voice to blend;
And the dearest of all our dreams
come true,
And on life's way is a golden
mile.
Each thirsting flower is kissed with
dew,
Once in a while.

Once in a while in the desert sand
We find a spot of the fairest
green.
Once in a while from where we
stand
The hills of Paradise are seen;
And a perfect joy in our hearts we
hold,
A joy that the world cannot de-
file;
We trade earth's dress for the pur-
est gold
Once in a while,
—Nixon Waterman, in Ex.

A Bride From the West.

When the Hartigs, of Roxbury, heard that their son and brother Charles had married a Western girl they were tempted to hysterics. Tempted only, for they were much too well bred and had too high a sense of personal dignity to do such a thing.

What they did, however, was to fluff at their eyes with sheer nothings of handkerchiefs and say, "How dreadful! What a barbarian she must be!" They sent polite but cool congratulations by telegraph and then waited in ill-concealed trepidation for the arrival of the pair.

They arrived just before dinner the next day. Mrs. Hartig and the Misses Hartig took a vulgar peep from behind the curtains of an upper window before they went down to receive the bride and groom. Charles Hartig, his face alight with undeniable happiness, helped his companion from the carriage. She stumbled and fell awkwardly across the curb. Young Hartig caught her in time to save a desperate fall. Wonder of wonders! He laughed as his peeping relatives hadn't seen him laugh since he was a boy in kilts.

"Evil communications corrupt

good manners," Mrs. Hartig said severely. "She has already taught him to be inconsiderate of the feelings of others."

Then Mrs. Hartig and her daughters went stilly and sorrowfully downstairs, reinforcing themselves for the trial before them by calling upon the shades of their Yankee ancestors for help.

Charles Hartig, looking so handsome and boyish that his mother's well-schooled heart, in spite of itself, warmed toward him, presented his bride. She was undeniably pretty as far as face was concerned, but her clothes and her manners! Mrs. Hartig sank into the nearest chair, forgetting to invite her guests to be seated. The Misses Hartig hurriedly applied their vinaigrettes to the situation.

"How-dee-do!" said the bride shrilly, shaking their hands with pump-handle effect and kissing each explosively. "Charlie," turning to her bridegroom, "your folks are all right."

Charlie laughed explosively. "The bride ignored him."

"I seen your picture lots o' times, He," pointing toward her husband, "showed it to me. I tell you I thought that diamond tea-tray you wore was great."

Silence, oppressive and leading, followed while the new relatives surveyed each other. The bride from the West was not so neatly gotten up. "Home-made" was written all over her clothes. The hat was an atrocity for traveling, an abortive Gainsborough of blue velvet with yellow tips. Her ill-fitting travelling dress was a soiled biscuit cloth, trimmed with lace and pink ribbons. Her cloak was a velvet "dolman," headed extravagantly. The ensemble was excruciating. There are times at which even the iron-nerved lose their self-possession. Mrs. Hartig turned reproachful, tear-filled eyes upon her son. He, meeting her eyes, laughed again.

The bride rambled on: "Charlie asked me if I dreaded meeting his folks and I said: 'I ain't never seen anyone yet that I was afraid of, and I guess I won't begin now.'"

The Misses Hartig offered to show her to a guest chamber, but she said:

"No, I ain't no need of goin'. My hair's all right, ain't it? And Charlie said my face was clean. I'm too hungry to think of primpin'."

So they went in to dinner, the bride stumbling over rugs as she went. Ever since the death of good Deacon Hartig his widow had asked a divine blessing upon each meal. The bride rattled on to Miss Lucy Hartig about an "engine that had run into theirs on the road" until that suffering young woman had to beg her to stop. There was a quaver in Mrs. Hartig's voice and her "O, Lord!" had the note of a wail in it.

"Speakin' of jokes," remarked

the bride as she gulped her soup, "we heard a funny one the night before we wuz married. Charlie and I, and Paw and Maw went to a music hall. They called it 'Dinky Dan's' because the fellow who kept it was a dwarf. There was one fellow that wore women's clothes and tried to ride a horse around a circus ring. He fell off and that made him mad. He was a terrible-looking fellow, with red hair about like yours, Lucy, only yours is so slick—do you use anything on it?—and he was afraid the ringmaster would discharge him, so he said: 'That horse has been drinkin'.' 'How do you know?' said the ringmaster. 'Because I smell the whisky on his breath.' Ain't that the funniest thing you ever heard in all your born days?' The bride laughed until she choked, and begged someone to "hit her awful hard on the back."

They returned to the drawing-room, where the bride yawned widely and said: "I'm goin' back to the hotel to get these tight things off. I hain't used to 'em. I mostly wear Mother Hubbards at home."

"You stay here till I get back," she said to her husband. "What's the matter with ye? Ye make me tired, grinnin' like a monkey. You remind me of that man at the music hall. He said to the other'n: 'Your mouth is so big it's always whisperin' to your ear.'"

When Charlie Hartig returned to the house after putting his bride into the carriage and directing the driver to take her back to the hotel he smoked his cigar into the drawing-room draperies with impunity. His mother and sisters had taken themselves to their respective rooms, and tears.

"Mrs. Charles Hartig!" The butler pushed back the portieres with a flourish and a smile. The Hartigs stared in acute amazement. A slim, graceful girl stepped in the shadow of the portiere. She wore a gown of white tulle whose low bodice showed exquisitely rounded arms and neck. Her chestnut hair was dressed high. On her fingers gleamed a few rare diamonds and a wedding ring.

She was modish, correct, perfect.

Charlie Hartig sprang to his feet and hurried to her. "My little queen!" the Hartigs heard him whisper. Then he led her to his mother. "Permit me to present my wife," he said.

The girl flushed and her eyes were half frightened, half merry.

"Forgive me, mamma," she said. "I knew you might be prejudiced not knowing the people of the West. So I masqueraded, with Charlie's consent, to show you what I am not."

Lever's Y-Z (Wise Head) Disinfectant Soap Powder is better than other soap powders, as it also acts as a disinfectant.

"Thank Heaven!" breathed Mrs. Hartig, taking her daughter-in-law into her arms.—Ada Patterson.

Some Hints as to Summer Styles.

Many plaited skirts are worn in a large diversity of materials ranging from mull to broadcloth.

Two lovely old-style fashions happily revived, and reminders of the Louis periods of dress, are the fish and the sash.

The bishop-shaped sleeve still holds its own but is much increased in size, to follow the present requirements of fashion.

The preference for one-tone color is increasing, and the combination of several different colors on one costume is not often seen.

The old fashion of piping and corded edges of ruffles, flounces and other trimmings has been revived, and most successfully.

The really new note in the summer gowns is the return to favor again of the full-gathered ruffle put on with a small heading for a skirt garniture.

Tulle still seems to hold first place, and nothing can quite fill its many uses, not only as a dress material but also as a trimming for many other materials.—Mrs. Radston, in the May Ladies' Home Journal.

Dresses the Summer Girl Should Have.

A gown of light summer silk, such as foulard, India or surah, will be needed for church and cool evenings.

A gown of flannel or light-weight serge made up without a lining is among the most sensible and useful to include in one's list of summer dresses.

The linen and cotton ducks cannot be excelled for all-round usefulness. If a girl has one or two of these white skirts with a couple of white blouses she can feel perfectly at ease no matter where she may be, nor what the occasion at which she must put in an appearance.

A thin white gown for special occasions is absolutely necessary. Linen, Persian lawn, dimity, organdy, and the many figured Swisses are all lovely materials from which to make a gown which will be suitable for the many little impromptu affairs which spring up in the summer time.—May Ladies' Home Journal.

Hints by May Manton.

GIRL'S SACQUE APRON, 4108.

No other apron serves quite the practical end that does the simple sacque illustrated. It completely covers and protects the frock. It is loose and can be slipped on and off with ease. It is supplied with pockets that provide for the odds and ends all children love to collect. As shown the material is gingham in a blue and white check,



4108 Girl's Sacque Apron.
8 to 16 yrs.

but various washable fabrics can be used.

The apron is made with full length front and backs and is shaped by means of shoulder and underarms seams only. Two patch pockets are stitched onto the fronts and the neck is finished with a simple turn-over collar. The sleeves are in bishop style with straight narrow cuffs.

To cut this apron for a girl of ten years of age 3½ yards of material 32 inches wide will be required. The pattern 4108 is cut in sizes for girls of 8, 10, 12, 14 and 16 years of age.

The price of above pattern post paid is only 10 cents. Send orders to The Farming World, Confederation Life Building, Toronto, giving size wanted.

Simple Remedy for a Sty.

A veteran housekeeper told me the other day of a simple remedy for a sty, which she says has never failed in her experience, says Good Housekeeping. It is a poultice of lukewarm tea leaves. Put the smallest quantity of water possible over a half spoonful of black tea and allow it to steep. Take it in ten minutes and fold into a tiny piece of thin muslin. Lay it on the eyelid and keep the eyes shut for half an hour. As it dries moisten in the cold tea. This cure is only of avail before the sty has come to a head; the poultice must be applied as soon as the first pricking pain in the eyelid announces the coming of the disagreeable inflammation.

The Evolution of Light

When grandma was a little girl,
And she went up to bed,
She carried then a "tallow dip,"
Held high above her head.

When mamma used to go up-stairs,
After she'd said "Good night,"
Her mother always held a lamp
So she could have its light.

As soon as sister's bedtime came,
When she was a little lass,
If she found the room too dark,
Mamma would light the gas.

Now, when the sandman comes for me,

I like to have it bright,
So I reach up and turn the key
Of my electric light.

And maybe my dear dolly,
If she lives out her days,
Will see right through the darkness
With the magical X-rays.

—Jean Mathers, in St. Nicholas.

Two Beautiful New Flowers.

Among the new flowers of merit are the Comet and Branching Asters. The first named has much less formality of petal and general arrangement than the better known sorts like the Rose and Peony-flowered class. These, as well as the Branching Asters, bear so close a resemblance to some of the popular Chrysanthemums in form and color that they are often used in their stead for decorative purposes in the fall, and few persons detect the substitution. They last for two weeks after cutting if the water in which they are placed is renewed daily.—Ladies' Home Journal.

To Whip Cream Successfully.

The cream must be sufficiently thick to hold the air, and must be very cold, and kept cold during the whipping. A small churn made from tin will whip one quart of cream in two minutes. Without a regular whip put the cream into a bowl and with an egg-beater or "sillabub" churn beat for a few moments, then skim off the whipped portion from the surface and drain in a colander, and so continue until all the cream has been whipped.—Ladies' Home Journal.

If there be one principle more than another to be observed in packing it is that the heavy things go at the bottom of the trunk, even though one is sure that it is to stand on end half of the trip.—Ladies' Home Journal.

Common soaps destroy the clothes and render the hands liable to eczema.

SUNLIGHT
SOAP REDUCES
EXPENSE

Ask for the Octagon Bar 111

FITS
EPILEPSY

FREE SAMPLE OF LIEBIG'S FIT CURE.

If you suffer from Epilepsy, Fits, Falling Sickness, St. Vitus Dance, or have children or relatives that do so, or know a friend that is afflicted, then send for a free trial bottle with valuable Treatise, and try it. The sample bottle will be sent by mail, prepaid, to your nearest Post Office address. It has cured where everything else has failed. When writing, mention this paper and give name, age and full address to THE LIEBIG CO., 179 KING ST. WEST, TORONTO, CANADA.

Dont's.

Don't quarrel with fate; it's foolish, for you can never win.

If you're a man be manly. If God made you for skirts, then let men's wear alone.

Don't pet your dog when things go well with you and kick him when they are crosswise. Dogs have feeling and loyalty, too.

Don't be a bad copy of a good thing or a great person; you shame your original and placard yourself very foolish.

Don't enthuse. It's bad form and worse policy.

Don't brag of your capacity. To drunk like an animal or eat like a glutton giveth glory only to a fool.

Don't slang when you are fatigued with your own patois. Study another. Slangy women are revolting.

Don't be too "frank"; a deal of spite and malice hides under that word.

Flippancy is never clever. Although persons laugh at what you say, it is because you are so silly, not at its wit.

Don't sponge. A great love and a true friendship can be killed by overtaxing.

Don't write froth to men, nor sentiment. If you ache for experience write a book, which will probably never be seen outside of your family.

Don't read until you consider it worth while to remember at least one thought of deduction of the author.

Don't look over your social inferiors, or they will cease to be that while you do it.

Don't tell social lies before the kiddies then punish them for playing truant from school or telling your original fairy stories.—Philadelphia Record.

Mary had a little bird
That once was full of song,
And everywhere that Mary went
The birdie went along.

She did not keep it in a cage,
There was no need of that,
The birdie couldn't fly away,
'Twas fastened on her hat.

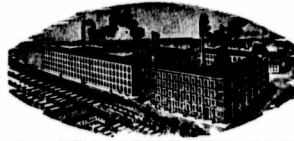
Bill: "I see Illinois is organizing a \$3,000,000 plow trust." Jill: "I thought this trust business would be run into the ground after a while."

Castleton: "Do you know, that baby of yours never noticed me at all?" "No. It always takes some bright object to attract his attention."

"You are indeed my treasure," I gently said to her;
She blushed and said with pleasure:
"Then be my treasurer!"

"Bad butter, sir?" queried the waiter with professional astonishment. "It ought to be first-class, sir." "It is," replied the customer calmly. "That's why I object to it. It's of the highest rank."

**BELL . . . PIANOS . . . AND
ORGANS.**



**Built to last a lifetime
By the Largest Makers
in Canada**



BELL is the Musician's Favorite

The BELL ORGAN AND PIANO CO. Limited, GUELPH, Ontario
Catalogue No. 41 Free

**"EAGLE" in 100's and 200's. "VICTORIA"
EDDY'S PARLOR MATCHES**

Are put up in neat sliding boxes convenient to handle. No sulphur. No disagreeable fumes. Every stick a match. Every match a lighter.

---- For sale by all first-class dealers. ----

Boils, Ulcers, Pimples, and all skin diseases can be cured very quickly by the application of the famous Indian Herb Salve, **NO-CHI-MO-WIN** (the healing herb). No-Chi-Mo-Win Salve contains nothing to irritate, no poisons, is absolutely harmless, but its curative powers seem really magical.

**BOILS
AND
ULCERS
CURED**

A first application on boil or ulcer, sore or pimple, soothes the burn, stops the throbbing, allays the itch; in a short time the poison causing the sore is also led, the blood builds up new tissue, and the boil, or pimple, or sore disappears.

It will not return if NO-CHI-MO-WIN Resolvent is used in connection with the salve. No-Chi-Mo-Win Resolvent is a tablet for internal use. It is the best of tonics; it strengthens the stomach, activates the liver, sends fine, strong, pure blood coursing through the veins, revives youth, and is the best known permanent cure and preventative for disfiguring sores and pimples, and painful boils and ulcers.

No-Chi-Mo-Win Salve and Resolvent together form a positive guaranteed cure for all skin troubles and any purchaser can have his money refunded if they do not prove as represented. Neither are sold at drug stores.

No-Chi-Mo-Win Salve costs 90 cents per box; No-Chi-Mo-Win Resolvent, 50 cents per box. The complete treatment is sent postpaid, securely sealed, on receipt of \$1.00.

Chimo Chemical Works, Wiarton, Ont.

N.B.—This treatment is a positive cure for piles.

**Contains Over
1,000 Recipes**



The most practical cook book in the world. The receipts are of a kind that appeal to the common sense of the housekeeper. Grouped together in black-face type at the commencement of each receipt is a statement giving the kind and quantity of ingredients required. The chapter on "The Sick" is itself worth the price of the book. Bound in substantial oilcloth cover for the kitchen.

A Copy of the Ideal Cook Book will be sent free to any present subscriber sending on new subscription to THE FARMING WORLD, or to any subscriber not in arrears for 50c. The published price of the book is \$1.00.

THE FARMING WORLD, Confederation Life Building, Toronto.

Enclosed find \$1.00. Send FARMING WORLD for one year to

Name.....
(New subscriber)

P.O.....

Send Cook Book free to

Name.....

P.O.....

The Farming World.

A PAPER FOR FARMERS AND STOCKMEN.

D. T. McARDER, PUBLISHER.
J. W. WHEATON, R. A., EDITOR.

The Farming World is a paper for farmers and stockmen, published weekly, with illustrations. The subscription price is one dollar a year, payable in advance.

Postage is prepaid by the publisher for all subscriptions in Canada and the United States. For all other countries in the Postal Union add fifty cents for postage.

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THE FARMING WORLD,
AGRICULTURAL BUILDING,
TORONTO.

QUESTIONS AND ANSWERS

Bone Meal.

G. H., St. Agathe des Monts, Que., writes:—I should feel obliged if in your next issue or later ones, you would give me a few pointers on the use of bone manure. This is a very poor sandy soil up here and I have thought of using some bone meal for top dressing for grass. How much per acre would it be advisable to use, also for potatoes and corn.

Answered by Frank T. Shutt, M. A., chief chemist Dominion Experimental Farms, Ottawa.

Good quality bone meal should contain "from 4 to 4 per cent. of nitrogen, and from 20 to 25 per cent. of phosphoric acid." In fairly open porous soils that are moist and warm, bone meal is readily decomposed, the nitrogen and phosphoric acid being converted into assimilable forms for plant food. It does not appear to be well adapted to heavy clays that are close and wet, nor for exceedingly light and dry soils.

The usual application is from 400 to 600 lbs. per acre, harrowed in, or if for land in grass, applied as a top dressing. Since bone meal does not contain potash, we should counsel a supplementary dressing of 25 to 40 bushels of ashes or say 100 lbs. of muriate of potash per acre. Potatoes and corn are both crops that require and respond to potash, so we think it would be good policy to furnish this element in the fertilizer used.

THE FARMING WORLD

Machine for Spreading Lime.

In April 22nd issue information was asked for in regard to a machine for spreading lime. Since then a subscriber has written to say that if J.W.T., will write E. H. Overholt, Rainham Centre, Ont., he will receive information regarding machines for spreading lime, ashes and manures that will be helpful.

Castration.

Though losses from castration are not so very numerous, yet they are sufficiently large to make the subject of some interest. If the operation is properly performed there should be no losses resulting therefrom. The two chief sources of loss are filth and improper methods of operation. In regard to filth the operation is often performed amid dirty surroundings and with dirty hands, and by dirty instruments. Care should be taken to have the knives, the hands, and every thing connected with the operation kept as clean as possible and disinfected.

In regard to performing the operation good weather should be chosen. Some authorities advise cutting lambs at about fifteen days old and do both operations—castrating and docking—at the one time. The operation should be performed expeditiously and with care, using only sharp knives. One important point is to make the incision so as to provide for free drainage. With lambs it is perhaps best to cut off the lower portion of the scrotum, blow back the wool and pull out the testicles, cords and all. Tail docking should be done by a different knife which should be sharp so as to make the cut clean with one swoop of the knife. If bleeding of the stump should result it can be easily stopped by a slight application of a red hot iron. To prevent infection by germs a mixture of one part of iodine and six parts boracic acid blown into and upon the scrotum after removal of the testicles will prove effective. With lambs they should be turned into a pasture when there is a good covering of grass and if possible this pasture should have been kept free from stock for a week or two prior to use by the lambs. Lambs or other youngsters operated on should be watched closely. Should stiffness of the gait be noticed the animal should be caught and the wound in the scrotum ripped open so as to allow escape of the retained fluids, the decomposition of which leads to about all the losses occurring. In regard to colts the main thing is to see that the wounds in the scrotum are kept open, and that the animal is made to take lots of exercise daily.

Patron: "Give me some ground hog."

Waiter: "What d'yer mean?"

Patron: "Sausage."



Small crops, unsalable vegetables, result from want of

Potash.

Vegetables are especially fond of Potash. Write for our free pamphlets.

GERMAN KALI WORKS,
93 Nassau St., New York.



RIDER AGENTS WANTED

One in each town to ride and exhibit a complete line of bicycles.

1902 Models, \$9 to \$15

'01 & '00 Models, high grade, \$7 to \$11

500 Second-hand Wheels

all makes and models, good as new, \$3 to \$8.

For Best Price in Retail, our wonderful

sale at half factory cost. We ship anywhere in great quantities and in days without any extra charges.

EARN A BICYCLE distributing 1000 extra copies of this book at once.

For Brochure in detail, our wonderful special low prices, terms, complete agent, samples, and list of regular prices, write:

MEAD CYCLE CO., Chicago, Ill.

CEILING AND WALL FINISH IN METAL

There is nothing to equal them - cost and utility being considered - Fire proof, everlasting, sanitary and - highly ornamental.

Can be applied without disturbing the plaster, and cost is not large. We have many patterns - to - select - from.

Send accurate size of room for free estimate and catalogue.

THE METAL SHINGLE & SIDING CO., Limited, Preston, Ont.

RIPLLEY'S COOKERS



Are now made in Canada, saving duty and freight for our customers. Made of boiler steel. No flues to rust or leak. Will cook 25 bushels roots or grain in two hours. Fine for heating stock water-tanks, dairy rooms, pigpens. Can be used outside or attached to a chimney same as a stove. Used and endorsed by the following

Canadian breeders and many others: Brethour & Saunders, Burford; W. D. Platt, Hamilton; D. G. Platt & Son, Millgrove; H. J. Davis, Woodstock; Ontario Agricultural College, Guelph; also James Boden, Graham Bros., Newton and Gosh, J. A. McDonald, J. P. Conroy. Prices \$10 to \$45. Took first premium at Toronto and London fairs. Catalogue and prices mailed free. Address: RIPLEY HARDWARE COMPANY, Box 215, London, Ont. U.S. Factory, Grafton, Ill.

THE PUBLISHER'S DESK

Take No Chances.

It may fairly be assumed that the average buyer of farm produce is honest and would not knowingly deceive a customer in his weight. But of course there may be exceptions and then, while the most careful man will sometimes make mistakes, there are careless clerks and others to reckon with. The careful man always counts his own cash. He should also weigh his own goods, both those sold and bought. The price of a scale can often be saved in a single season.

In feeding live stock an occasional weighing of the animal and of the feed is a good business plan.

The more business like a farmer conducts his affairs the more money he will make. Read the scale ads. in our columns.

Lord and Thomas Directory for 1902.

The Pocket Directory of the American Press of 1902 has just made its appearance, and while it continues in its popular handy size for desk pigeon hole or pocket, is more complete than ever in the features it contains of special interest to all who are interested in advertising. The entire contents are arranged and classified for ready reference, and the work is bound in morocco with gilt edges and gilt stamped. It has its place on the desk of every business man interested in general advertising. Sent prepaid on receipt of \$2. Lord & Thomas, Newspaper, Magazine and Outdoor Advertising, Trade Building, Chicago, Ill.

Fleming's Lump Jaw Cure.

Here is a remedy for Lump Jaw in cattle that is guaranteed to cure—"free if it fails," is the way its makers put it. There is no guess work about the results where Fleming's Lump Jaw Cure is used, as it has cured thousands of cases in from one to three applications. It is easily applied, harmless and humane. Have also Poll Evil Cure and cure for Spavin. Free information and book of testimonials from many users sent free to all who write Fleming Bros., 36 Front St. West, Toronto, Ont., mentioning Catalogue K.

A Fine Roofing Material

On the front cover of this issue will be found an advertisement of The Paterson Manufacturing Co. which is well worth noting carefully. The goods supplied by this company have invariably given satisfaction. In fact they stand alone in Canada to-day as the largest manufacturers of water-proof building paper. One of their leading lines is their patent wire-edged ready roofing. It consists of sheets of pure wool tarred roofing felt cemented together with a layer of water-proof composition in which is imbedded wire to give the roofing greater strength and prevent it from tearing. We strongly recommend any of our readers who contemplate building this season to correspond with The Paterson Mfg. Co., Toronto. They also have offices at Montreal, St. John and Halifax.

All About Spraying.

The difference between the profit and loss sides of the farmer's balance at the end of the year is largely determined by his campaign against the insect pests. The very best literature that we have ever seen on this subject is a booklet issued by the Spraymotor Co., of London, Ont. This book deals with almost every pest to which the farmer's orchard, garden or field is

The Farmers' Binder Twine and Agricultural Implement Manufacturing Co. of Brantford LIMITED

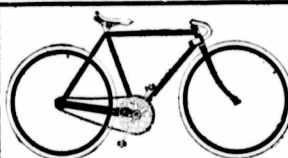


Co-operation of nearly eight thousand farmers indicates mighty strength, and was originally pitted against one of the greatest binder twine combines the world has ever known.

The twine Trust is a thing of the past, while this Company has survived the opposition storms of ten seasons. Scepticism and indifference alone in the ranks of the farmers can now drive us from competition.

If we have no agent representing us in your locality, give us immediately the name of a good man in the interests of this Co-operative movement and our own homes.

Joseph Stratford,
General Manager.



Cut this ad. out **\$1.00** and send to us with Men's or Ladies' Bicycle, height of frame and gear wanted, and we will send you this **High Grade 1902 Model Eagle Bicycle** by express C.O.D. subject to examination. You can examine it thoroughly at your Express Office and if found perfectly satisfactory exactly as represented a **GENUINE EAGLE BICYCLE, HIGH GRADE 1902 MODEL**—pay to the Express Agent the balance due—**\$29.00**—and Express Agent the balance due—**\$29.00**—and Express Agent the balance due—**\$29.00**—

Charges. The express charges are only 50 to 75 cents for each 500 miles. No extra charge for Ladies Bicycles. **EVERYONE KNOWS THE EAGLE BICYCLES.** They are the **Highest Grade** wheels made; no Bicycle has a better reputation; no Bicycle has been more widely advertised by the makers; big favourites with best Bicycle Clubs; the leading wheel with professional riders. Built on honor, flush joints, finest hanger, hubs and bearings, highest grade equipment. Fitted with Victor single Tube Tires. \$2.50 extra for Morgan & Wright Tires—\$5.00 extra for Dunlop Tires. Heights of frame—Men's 20, 22 and 24 in.—Ladies' 20 and 22 in.—enamel Black. **WE OFFER** splendid chance to a good agent in each town. Send for catalogue and ask for Agents' Discouunts. **Wheels slightly used, \$8.00 to \$25.00.** Secure Agency at once. **T. W. BOYD & SON, 1683 NOTRE DAME ST., MONTREAL.**

The "NATIONAL" Cream Separator



The "National" is a purely Canadian made machine throughout, which cannot be said of some others. Intending purchasers are invited to call at our factory in Guelph, where they may see the machine and all its parts in course of construction.

Superiority of the "National"

It possesses all the strong points found in other Cream Separators, while it is free from objectionable points that make other machines hard to run, and a source of trouble to those who operate and clean them.

The **National** is simple in construction, handsome in design, and finely finished; easy to operate, and few parts to clean; a perfect skimmer with a larger capacity than any other separator at the same price. Every machine guaranteed to do good work.

Capacity of No. 1.—330 to 350 lbs. per hour.

Capacity of No. 1 A—450 to 500 lbs. per hour.

Give the "National" a Trial.

GENERAL AGENCIES

Creamery Supply Co., Guelph, for South-western Ontario.
T. C. Rogers Co., Guelph, for Ontario North and East.
Jos. A. Merrick, Winnipeg, for Manitoba and N. W. T.

MANUFACTURED BY

The Raymond Mfg. Co. of Guelph, - Limited
GUELPH, ONTARIO.

SHEEP

At the Fat Stock Shows

A LETTER FROM A WINNER OF REDS

I have been frequently asked about my method of feeding, and it may interest some to know that I largely attribute my success to Herbageum, which I have used during several years, and during the last two years have used a considerable quantity. Especially have I had good results with lambs that were being fitted for exhibition purposes. Other lambs not getting it were frequently troubled with ticks, but we have never found any trouble with ticks when sheep or lambs were fed Herbageum.

I only feed a teaspoonful to sheep and rather less to lambs once a day.

Three sheep that I bought in 1900 were fairly alive with ticks. I put them with my other show sheep and gave them Herbageum, and when sheared, about the middle of March, 1901, they were perfectly free from ticks, and they had no sheep wash nor other remedy or preventive than Herbageum.

I may further say, that the sheep which were fed Herbageum were in so much better condition than my other sheep which were not fed it, that when sheared the clip averaged 2 lbs. each more than the others.

I have also used it with cows and other stock to good advantage.

Yours sincerely,

(Signed) JOHN ORR,
Lakeside Farm, North Dumfries,
County of Waterloo, Ont.
Feb. 19th, 1902.

NOTE.—Mr Orr has for a number of years been a winner of Reds at Toronto, Chicago, Guelph and elsewhere. In fact, at Toronto, he took first on pair of wether lambs, and second on pair of yearling wethers. At Chicago Exhibition, Autumn of 1901, he took first and second on single lambs, and first on the best five lambs, also first on yearling and championship on yearling. This yearling took the sweepstakes wherever exhibited, and wound up at Guelph Fat Stock Show, Dec., 1901, with first in his class, and first for best carcase.

Mr. Orr was also winner of a number of prizes in breeding classes at Toronto, 1901.

Jan. 15, 1900
Agents are making as high as \$7 a day selling the
STANDARD SHOCK
and FODDER TIE.

Sell at sight. Write at once for terms and secure choice of territory. Samples free. THE STAN DARD FODDER TIE COMPANY, Watouen, Ohio



BUCHANAN'S UNLOADING OUTFIT
Works well both on stacks and in barns, unloads all kinds of hay and grain either loose or in sheaves.
Send for catalogue to
M. T. BUCHANAN & CO., Ingersoll, Ont.

subject and gives simple directions for their extermination. This handsome 80-page book will be sent free to anyone addressing The Spramotor Co., London. By the way, let it be once and for all understood that there is only one spramotor and that one is manufactured in London, Ont.

De Laval.

Elsewhere in this issue the De Laval advertisement appears, and is altogether out of the ordinary. Besides being somewhat unique it really says something. These people have a great separator and the knack of saving the right thing about it.

In a school for colored children there was a little boy who would persist in saying "have went." The teacher kept him in one night, and said, "Now, while I am out of the room you may write 'have gone' fifty times." When the teacher came back he looked at the boy's paper, and there was "have gone" fifty times. On the other side was written, "I have went home."

Third Ward Citizen—How many stops has that 'er new organ, that ye bought for your daughter, got?

Second Ward Citizen (grimly)—Three—breakfast, dinner and supper.

He Knew It.—He was being gently chaffed about his stammering. He took the badinage with customary good nature.

"T-t that s r-right, b-b-boys!" he smiled. "I'm a s-s-stammerer all right. Wh-wh-why, wh-wen I w-wa-wa-when I w-want vinegar for m-m-my s-s-s-salad I c-c-all for s-s-sweet cider, and it's vinegar b-b-bub-bub-by the t-t-time I g-g-get it!"—San Francisco Bulletin.

"That's quite a fine horse you bought the other day. What have you named him?"

"I have decided to call him Great Bargain."

"Great Bargain? Why do you call him that?"

"Well, I call him that merely because my wife can drive him."—Richmond Dispatch.

An excursionist just returned from the coast after a week's holiday, was asked by a friend what kind of weather he had. "Man, there was only wan shoor, but it lasted a' the time," was the reply.

More and More,

The use of good mowers has become so general that the demand for these mowers is increasing more and more. The demand for more and more O. K. mowers is so great as to tax to the utmost the great mower producing facilities of the World-Centre works. Call on the nearest agent and inspect the McCormick line of grass cutters. It is the O. K. line.

STOCK

DAVID McCRAE, Janefield, Guelph, Canada, Importer and Breeder of Galloway Cattle, Clydesdale Horses, and Cotswold Sheep. Choice animals for sale.

J. A. RICHARDSON, SOUTH MARSH, ONT., BREEDER of Holsteins, Dorset-Horned Sheep Tamworth Swine

E. PENNEBECKER, Fairview Farm, Hespeler, Ont., BREEDER OF REG. HOLSTEINS, STOCK FOR SALE.

Rapids Farm Ayrshires

Reinforced by a recent importation of 20 cows, 2 bulls and a number of calves, selected from noted Scotch herds, and including the male and female champions at leading Scottish shows this year. Representatives of this herd won the first herd prize at the exhibitions at Toronto, London and Ottawa.

Come and See, or Write for Prices

Young Bulls and Heifers for sale, bred from high-class imported stock.

ROBERT HUNTER, Manager for W. W. Ogilvie Co., Lachine Rapids, Quebec



ROCK SALT for horses and cattle, in ton and car lots. TORONTO SALT WORKS, Toronto

FLEMING'S LUMP JAW CURE

LUMP JAW

Easily and thoroughly cured. New, common-sense method. Not expensive. No cure, no pay. **FREE.** A practical, illustrated treatise on the absolute cure of Lump-Jaw free of any cost for Farming Nos. 327 Fleming Bros. Chemists, 30 Front St., West, Toronto, Ont.

Trade Mark.

OXFORD SHEEP

Sheep all ages, Shearing Rams for Stock Headers and Rearing Purposes, Yorkshire pigs all ages, Plymouth Rocks.

John Cousins & Sons, Harrison, Ont.



ONTARIO VETERINARY COLLEGE, Limited

Temperance St., Toronto, Can.

Affiliated with the University of Toronto.
Patrons: Governor General of Canada and Lieutenant-Governor of Ontario. The most successful Veterinary Institution in America. Experienced Teachers. Fees, \$65 per session.

PRINCIPAL, PROF. SMITH, F.R.C.V.S., TORONTO, CANADA

WOOD ENGRAVING, PHOTO ENGRAVING, HALF TONES
168 BAY ST.
J.L. JONES ENG. CO.
TORONTO

PURE-BRED STOCK

NOTES AND NEWS FROM THE BREEDERS

These columns are set apart exclusively for the use of breeders of pure-bred stock and poultry. Any information as to importations made, the sale and purchase of stock and the condition of herds and flocks that is not in the nature of an advertisement will be welcomed. Our desire is to make this the medium for conveying information as to the transfer of pure-bred animals and the condition of live stock throughout the country. The co-operation of all breeders is earnestly solicited in making this department as useful and as interesting as possible. The editor reserves the right to eliminate any matter that he may consider better suited to our advertising columns.

Horses

An important and interesting auction sale of carriage horses took place at the American Horse Exchange, New York, in April. The sale consisted of 28 Russian Orloff horses, imported into the United States by Bergh & Co. The average price obtained was \$1,243 each for the entire offering. All save one, (a chestnut) were either black or grey, the shading of the latter being very fine running from a more or less white on the top line to black on the legs. Their heads and necks were clean cut and full of quality. The action displayed and the speed were not to the liking of the best critics. The beautiful form, quality and rich coloring making them sell high. The highest priced pair sold for \$6,400. A black four-in-hand was sold, wheelers at \$2,700, leaders at \$2,625 and from these figures prices ranged down to \$500 each. The sale stands on record as one of the best carriage horse sales.

In addition to its qualities for carriage purposes, the Orloff is known as the Russian trotter. The are named after Count Orloff, who originated the breed. The strains of blood used by him were the Arabian, English Thoroughbred, and Holland and Russian mares. There was considerable crossing and recrossing until a type was secured that represented the ideas of the Count, and then the breeding was very close so as to preserve it and concentrate the blood to secure its prepotency. That the Count was successful in his efforts to produce a new and valuable breed, with the ability to reproduce itself, is shown by the truthness to type with which they breed. How they cross on other breeds we have no knowledge, but they should do well.

Mr. Walter S. Park, Hatton Bishopton, has sold the well-bred four-year-old stallion Royal Token (10890), to Mr. Fred. Youngblood, Lonsborough, Ontario. This finely-bred horse is well coloured and compactly made and of good quality. He was got by the noted breeding Prince of Wales horse Royal Signet, out of the famous Darnley mare Hatton Beauty, dam of Prince of Erskine and Kate Park, and several other notable prize winners. As is well known her dam again was the equally famous mare Hatton Bella, dam of the great breeding horse Lord Erskine, the £1,300 Lord Colum Edmund, &c. The breeding of this horse is very difficult to equal, and if he only does as much good for the breed in Canada as his ances-

tors have done in this country, Mr. Youngblood will not have crossed the ocean in vain.—Scottish Farmer.

Cattle.

That enterprising Canadian breeder, W. D. Flatt, is making a notable contribution to a combination sale of Shorthorns to be held at Indianapolis, on May 14th. Among these will be members of the Strathallen Missie and Kilbean Beauty families all noted prize winning strains, both in the old land and on this side.

Is Sure Death.

The potato bug is still with us and likely to continue his depredations on the farmers' potato-patch for many years to come. His extermination is no nearer realization than when his "beetleship" arrived thirty or forty years ago. To secure a crop of "tubers" the farmer then must make some effort to curtail the bugs' ravages.

At an Institute meeting in Maine recently, Mr. E. A. Rogers gave his experience in potato culture, from which we take the following: "We must kill the bugs, protect from blight, prevent scab and grow good crops. The time is near at hand when we shall be obliged to let go the arsenical preparations for the destruction of the bugs because of the injurious effect upon the plant, its early and premature decay and the immature crop sure to follow. Potatoes, like any other crop are best when fully matured, and we must help to this perfection not hinder by poison. The first year I used Bug Death and Bordeaux mixture the vines kept green until the last of September.

"Do you think this helped or hurt the perfection or quantity of the crop? Can you do that with arsenic? I cannot. I have been testing on plats plowed, cultivated, fertilized and treated the same and find that where Paris green was used the vines died first, those treated with Paris green and Bordeaux mixture next, Bug Death third and Bug Death and Bordeaux mixture last, and that the difference in yield between the first and last plats was 95 bushels per acre in favor of the Bug Death and Bordeaux mixture. This has been my experience in killing bugs not driving them. The talk that Bug Death does not kill is false. We want the greatest possible amount of starch in our potatoes and to get this we must have well matured seed, the land well plowed and freely cultivated, the fertilizer one to assist in pushing the crop, and

HORSEMEN! THE ONLY GENUINE IS

COMBAULT'S CAUSTIC EALSAM.

See genuine without the signature of
The Lawrence Williams Co.
Sole Agents for the Province of Ontario
U. S. & CANADA, 11 CLEVELAND O.
The Safest, Best HEALER ever used. Takes the place of all liniments for mild or severe action. Removes all Bunches or Blemishes from Horses and Cattle. **SUPERSEDES ALL CAUSTIC OR FRIKING.** Impossible to produce scurf or blemish. Every bottle is warranted to give satisfaction. Price \$1.50 per bottle. Sold by Druggists, or sent by Express, charges paid, with full directions for its use. Send for free descriptive circulars.
THE LAWRENCE-WILLIAMS CO., Toronto, Ont.

ALVA FARM GURNSEYS

The Typical
Dairy Breed

Good
Animals of
Both Sexes
for Sale



SYDNEY FISHER, Knowlton, Que.

T. Douglas & Sons, Strathroy, Ont.

Breeders of
Short horns and
Clydesdales
100 Short horns to select from. Herd bulls (imp.), Diamond Jubilee—2881—and Double Gait—2882. April offering—8 grand young bulls, and cows, and heifers of all ages. Clydesdales—1 three-year old stallion and one four-year old mare (in foal).

Farm one mile north of town.

JOHN DRYDEN

BROOKLIN, ONTARIO

BREEDER OF

CRUICKSHANK SHORTHORNS and CHOICE SHROPSHIRE SHEEP

Choice Young Bulls and Ram Lambs for sale. Write for prices.

QUEENSTON HEIGHTS SHORTHORNS.

Scotch and Scotch-topped choice young cows and heifers for sale at moderate prices.

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4 YOUNG BULLS 4

11 to 14 months, well-bred growthy fellows. Prices Right.

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W. R. BOWMAN
Mt. Forest, - Ontario

Is offering 2 richly-bred Short horn Bulls at \$80; one Polled Angus Bull \$85; Plymouth Rock eggs 5 settings for \$2; Yorkshires always on hand.

Market Review and Forecast

Office of The Farming World,
Confederation Life Building,
Toronto May 5, 1902.

While general trade has ruled a little quiet during the week, prospects continue bright. Encouraging reports come from parts of the country where the dairies have begun operations. The stock market is easier though there is still active buying of Canadian securities. Money seems to be ample for all legitimate trade. Call loans rule at 5 per cent. and discounts on mercantile paper at 6 to 7 per cent. as to name and nature of the account.

Wheat.

The speculative wheat market is a kind of barometer these days that tells one what the weather has been. If there has been unfavorable weather up goes the price of wheat and if it has been favorable for growth, down the price goes. It is a kind of see-saw game that makes speculating in wheat very interesting just now. But to come down to the real thing there is very little change to report in the general condition of the wheat market. During the week cables have ruled firm and higher than a week ago and on the whole there is a higher market all round. In regard to the growing crop the "Price Current" of last week says: "Excepting Kansas and Nebraska, wheat has benefitted by rains and milder temperature and is now doing fairly well. The average condition is as good as a month ago."

Locally the markets rule firm with a lot doing in Manitoba at higher values than a week ago. Here the market is firm at 75c to 76c for red and white, middle freights. Goose is quiet at 66½c to 67c and spring quiet at 73c to 74c east. On Toronto farmers' market red and white bring 70c to 81c, goose 70½c to 78c and spring tile 67c per bushel.

Oats and Barley.

The oat market keeps firm under a good export demand. Prices are firm here at 43c to 43½c for No. 2 white east and 43c to 43c middle freights. On the farmers' market oats bring 46c to 46½c per bushel.

There is a good demand here for low grades of barley for feed and quotations are 48c to 53c as to quality and point of shipment. On Toronto farmers' market malt barley brings 54c to 60½c and field barley 53c to 54c per bushel.

Peas and Corn

Peas are reported quiet at Montreal owing to prices being too high to admit of profitable export. Quotations here are 79c to 80c at outside points.

From all accounts the acreage of corn being planted in the United States will be extra large. Prices rule steady on this side. At Mont-

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real cars in store are quoted at 71½c to 72c per bushel. The market here is firm at 60c to 61c for car lots of Canadian yellow west.

Bran and Shorts

Ontario bran is quoted at Montreal at \$18.50 to \$19.00 and shorts at \$22.00 to \$22.50 in car lots on track. City mills here sell bran at \$19.50 and shorts at \$21.00 in car lots l.o.b. Toronto.

Potatoes and Beans.

Potatoes are soaring upward in price. Good sound Quebec potatoes are quoted in Montreal at 80c to 85c in car lots. The market here is firm and higher. There have been several American buyers here during the week. Car lots are quoted here at 80c to 85c on track. On Toronto farmers' market potatoes bring 90c to \$1.00 a bag.

The bean market is more active. At Montreal primes are quoted at \$1.18 to \$1.20 for car lots.

Hay and Straw

Though the government have not commenced buying again dealers east are finding a ready market for their surplus stock. The English market is taking a large share where prices are good and American buyers have taken some. Prices at country points east have dropped a little to \$6.50 to \$6.75 l.o.b. on cars. These prices are reasonable and should admit of a lot of Quebec's big crop being gotten rid of. Though offerings here are liberal there is a good demand with higher prices at \$10.00 to \$10.50 for car lots on track. On Toronto farmers' market timothy brings \$11 to \$13, clover \$8.00 to \$9.00 and sheaf straw \$8.00 to \$9.00 per ton.

Eggs and Poultry.

The egg market is firm, though the English market at the moment is low. There is every evidence that Americans will take a hand in this season's trade. It is reported at Montreal that both Armour & Co., and Swift & Co., are preparing to buy largely of Canadian eggs this season though they naturally repudiate any attempt to corner the market. At the meeting of dealers referred to last week values at points west of Toronto were fixed at 10½c l.o.b. to stores and 11c to buyers and east of Toronto at 11c to stores and 11½c to buyers. The market here is steady and firm at 13c in case lots. On Toronto farmers' market eggs new laid, bring 11c to 13c a dozen.

Dressed poultry commands good prices just now for those having any to sell. On the local market here live and dressed chickens bring 80c to \$1.00, and ducks 70c to \$1 per pair and turkeys 14c to 16c per lb.

The Canadian Produce Co., Ltd., 36 and 38 Esplanade St. East, Toronto, will pay until further notice for live chickens, 8c, for ducks and turkeys 11c, for geese 6c per lb. All must be young birds. For hens 5c per lb. Dressed poultry, dry picked (except hens), ½c lb. higher. These prices are for weight on arrival. Crates for live poultry supplied free, and express paid up to 50c per 100 lbs. of chickens. No thin birds will be taken.

Seeds.

The seed market is quieter. On Toronto farmers' market alsike sells at \$12.50 to \$16.50, red clover



Trees! Trees!! Trees!!!

We have a full line of Fruit and Ornamental Trees for Spring, 1902, at lowest possible prices. Headquarters for packing dealers' orders.

Farmers wishing to buy first-class stock absolutely first hand and without paying commission to agents, should write to us at once for a Catalogue and Price list.

Don't wait until the last minute, as you will be disappointed. Place orders early and secure the varieties you want. Correspondence solicited.

WINONA NURSERY CO., Winona, Ont.

WANTED—BUTTER, POULTRY, EGGS

We have a large outlet, having Twenty-one Retail Stores in Toronto and suburbs.
Payments weekly. Established 1854.

The WM. DAVIES CO., Limited

Head Office—Retail Dept.

Correspondence invited. 24 Queen St. West
TORONTO

at \$6.50 to \$9.25 and timothy at \$7.80 to \$8.25 per cwt.

Cheese

The cheese season of 1901 and 1902 closed on May 1st and 1902 and 1903 began. Not for several years has the cheese trade started out so promisingly for the producer as this year. Prices are 2c per lb. in advance of a year ago. The 20,000 boxes of toddler cheese made in April have been in demand and those who contracted the April make early at from 10c to 10½c lost by it, as April sold during the week at 10½c to 10½c. At the Brookville cheese market held on May 1st all offerings sold readily at 10½c. Old stock is quoted at Montreal at 11c to 11½c for fine to finest whites and 11½c to 11½c for finest coloreds. Montreal quotations for April are 10½c to 10½c.

Butter

The creamery butter trade, excepting, perhaps, in local centres, like Toronto, is weaker and prices lower. The English market is weak and 2s. lower than a week ago. In regard to last week's trade the Trade Bulletin says:

"The market has dropped another 1c to 1½ since our last report, sales of between 500 and 600 packages being reported, fine to finest Irish Eastern Townships creamery at 19c to 19½c, delivered here, which is a decline of 3c to 4c per lbs. from top prices, a short time ago. Sales of Sheffield creamery have been made this week at 18½c to 18½c f. o. b. for salted, and 19c f. o. b. for unsalted. At Bedford sales were made of salted at 18c to 18½c, and unsalted at 19c f. o. b. Stocks have been accumulating, and until they get down to an export basis they will continue to increase; and it is thought by some that they have reached that point, as several lots have passed into exporters hands during the past few days. Besides it is held that the present price of cheese will induce farmers to change from butter to cheese, in a number of combination factories. Several lots of Western creamery are offering on the market at 18½c without meeting buyers; and a lot has just been sold at 18c."

Choice creamery, though offering more freely, continues in good demand here at 22c to 23c for prints and 21c to 22c for tubs. Choice dairy is more plentiful, though still behind the demand. In a jobbing way, choice pound rolls sell at 17c to 18c and large rolls at 16½c to 17c per lb. On Toronto

farmers' market pound rolls bring 18c to 22c and crocks 15c to 17c per lb.

Cattle.

On the whole, the cattle situation is not as strong as a week ago, and at leading American markets prices for prime stock have ruled lower. In the Western States a movement is on among drovers to boycott the beef trust. Whether it will amount to much or not remains to be seen. At Toronto during the week, the market, on the whole, is weaker, though it really choice stuff were offered prices would keep up. On Friday there was quite a large run of live stock consisting of 1,507 cattle, 1,106 hogs, 141 sheep and lambs and 96 calves. The quality of the cattle, with a few exceptions, was not good, there being too many mixed lots of rough unfinished cattle. Trade was not as brisk as earlier in the week owing in part to the large number brought in and more especially on account of the rough undesirable quality of the cattle offered, many of the drovers having made contracts with farmers to take their cattle the first week of May, larger numbers were forwarded than otherwise would have been the case. Prices for choice, well-finished exporters were very little affected, but the rougher, mixed class were from 10c to 15c per cwt. lower. One lot of choice shippers sold at \$6.62½ and a few at \$6.50 per cwt. The bulk of the best exporters ranged from \$6.00 to \$6.35 per cwt. Feeders and stockers are scarce with prices firm at quotations given below. Milch cows are also scarce and firm. The deliveries of calves were large. All of choice quality were readily bought up, but those of common or inferior quality are easy at quotations.

Export Cattle.—Choice loads of heavy shippers are worth from \$6.00 to \$6.35 per cwt., medium exporters \$5.60 to \$5.85. Heavy export bulls sold at \$4.50 to \$5.00 and light ones at \$4.25 to \$4.35 per cwt., choice export cows sold at \$4.40 to \$4.75 per cwt.

Butchers' Cattle.—Choice picked lots of these, equal in quality to the best exporters, weighing 1,100 to 1,150 lbs. each, sold at \$5.50 to \$5.75 per cwt. Choice picked lots of butchers' heifers and steers, 925 to 1,025 lbs. each sold at \$5.25 to \$5.50, good cattle at \$5.25 to \$5.40, medium at \$5.00 to \$5.10 and inferior to common at \$4.00 to \$4.50 per cwt.

Feeders.—Light steers, 900 to 1,000 lbs. each sold at \$4.25 to \$5.00 per cwt.

Stockers.—Well bred young steers weighing 400 to 800 lbs. each sold at \$3.30 to \$4.00, and off colors and those of inferior quality at \$2.75 to \$3.00 per cwt.

Calves.—These are lower at Buffalo. Good to choice veals bring \$6.00 to \$6.50 per cwt. At Toronto market good to choice calves bring \$4.00 to \$6.00 per cwt. and \$2.00 to \$10.00 each.

Horses Wanted by the British Government!



Dick's Blood Purifier for Horses.

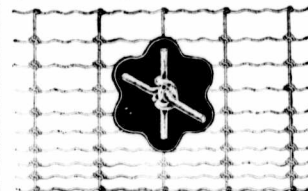
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Ideal Woven Wire Fencing Complete in the Roll

A heavy one-piece stay that will not buckle up and cannot slip. Note the lock. No. 9



hard spring wire throughout. A fence that will last.

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Coiled spring and other fence wires.

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SETTLERS' One-Way EXCURSIONS

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Passengers travelling without Live Stock should take the train leaving Toronto at 1.45 p.m.

Passengers travelling with Live Stock should take the train leaving Toronto at 9.00 p.m. Colonist Sleeper will be attached to each train.

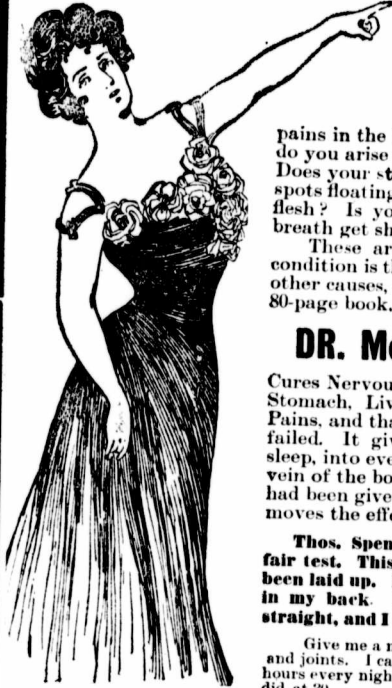
For full particulars and copy of "Settlers' Guide" apply to your nearest Canadian Pacific Agent, or to

A. H. NOTMAN, Asst. Genl. Pass. Agent.
1 King Street East, Toronto.

Keep your eyes open and be sure that when you ask for Perry Davis' Painkiller you get just that and nothing else. Use it promptly to cure cramps, diarrhoea and all other bowel complaints in summer.

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Are you discontented with yourself? Do you realize that you are not what you ought to be? Do you dread unknown dangers and start at sudden sounds? Are your hands and feet and other parts of your body cold? Do you have shooting pains in the head or "come and go" pains in the back? Is it hard to get to sleep, and do you arise more tired than when you go to bed? Does your stomach bloat, and do you seem to see spots floating before your eyes? Are you losing flesh? Is your memory defective? Does your breath get short upon slight exertion.



These are a few of the symptoms of nervousness. This condition is the result of overwork, constipation and numerous other causes, which are explained in my beautifully illustrated 80-page book, which is free for the asking.

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Cures Nervous Disorders, Weak Back, Lumbago, Rheumatism, Stomach, Liver, Kidney and Bowel Troubles, "Come and Go" Pains, and that Tired Feeling after every other treatment has failed. It gives the vitalizing power of electricity, while you sleep, into every weak and pain-worn nerve, muscle, tissue and vein of the body. After a few days' use you feel as if new life had been given to you. It banishes pain and weakness and removes the effects of overwork and worry.

Thos. Spencer Mull, Ont., writes:—I have given your Belt a fair test. This is the first winter since I hurt my back. I have not been laid up. I have not lost a single day yet, and I have no pain in my back. I can get in most any shape now and come out straight, and I feel a lot stronger, and my back is all right.

Give me a man of 50, feeling old and worn out with pains in his back and joints. I can pump a stream of Electricity into his body for a few hours every night, and soon he will feel as strong and light-hearted as he did at 30.

Herbert E. Reid, Barrie, Ont., says:—I received great benefit from the use of your Belt. I have been free from all aches and pains and have been greatly strengthened every day. There is no doubt but that it is the right remedy for all weaknesses in men.

I could fill this paper with testimonials from honest people. If you will call or write I will give you names of people all about you whom I have cured.

My confidence in my method enables me to offer the Belt on trial, and one who can offer me reasonable security can use my Belt at my risk and

PAY WHEN CURED.

CAUTION There are many old style belts on the market to-day, whose merit is their ability to burn and scar the flesh. These old style blistering scorchers are using a cheap imitation of my Cushion Electrode. My office contains hundreds of these old style Belts, discarded as useless, many of them after the patient had only had them one week. I want every man or woman who is suffering pains or weakness to call at my office and **TEST MY BELT FREE OF CHARGE.**

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I have published for **FREE DISTRIBUTION** to those interested in the development of vigorous health in **MEN and WOMEN.** It describes my method of treatment and appliances sent sealed free upon request. **WRITE FOR IT TO-DAY.**

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