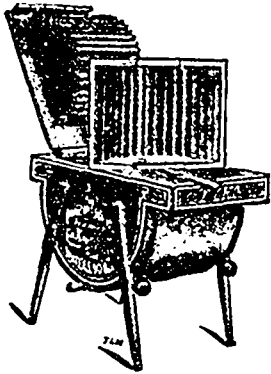




# FARMING.

## THE INVINCIBLE WASHER



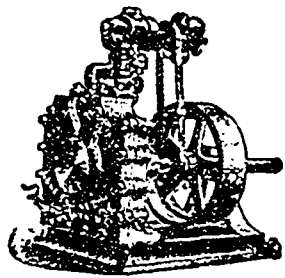
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You know that they last longest, draw lightest, and work easiest. You know our cast repairs, with full name and address cast in full on each piece. You know that they "last twice as long."

You don't know our new line of

## Pneumatic Ensilage and Straw Cutters

for sale. Look out for them, or you will be behind your neighbour.

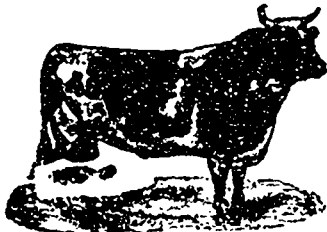
The cause of the unquestioned success of our Implements is neither secret nor mystery—they simply cost more money to build. We use more expensive material, more expensive labor, more care for each implement and more judgment in making improvements and changes, and you reap the benefit in substantial, long-lived implements.

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Ayrshire and Guernsey Cattle.  
Improved Yorkshire Swine.



J. N. GREENSHIELDS, Proprietor

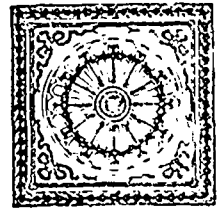
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Trade Mark Reg'd.

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Yours truly,  
FLEMING & SHORT.

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Dowsby Hall, Folklingham, Lincolnshire, England

Have always for inspection and Sale fine specimens from their FLOCK of PURE LINCOLN SHEEP (No. 47 in Lincoln Flock Book), including SHEARLING EWES and RAMS, also RAM and EWE LAMBS. Sheep from this flock have been exported to nearly all parts of the world, where their great substance and large fleeces of beautiful quality wool give the greatest satisfaction to purchasers. Early in 1894, about twenty Rams from this flock were sold by public auction in Buenos Ayres, and realized the highest average ever obtained for Ram Hogs exported from England. The flock is most carefully bred, and none but the very best sires used. Messrs. Dean also send out selections from their flock to purchasers who are unable to come to England to inspect them, and they have given great satisfaction. Messrs. Dean have also for sale purebred Bates SHORTHORNS and pure LINCOLN RED SHORTHORNS.

Dowsby Hall is one mile from Rippingale Station, on the Great Northern Railway, Bourne and St. Ives Branch.

TELEGRAMS: DEAN, RIPPINGALE.

J. E. Casswell

Stock Book No. 46

Laughton, Folklingham, Lincolnshire, Eng. This well-known flock has been established more than 100 years, and the pedigree Lincoln long-wooled rams and ewes have been noted throughout the Colonies and South America for their "size, symmetry, and lustrous wool." Ewes from this flock have always passed from father to son, and have never been offered for sale. Mr. J. E. Casswell's grandfather, Mr. G. Casswell, of Laughton, was the first breeder in the county to let his rams by public auction. At Lincoln Ram Fair, 1895 and 1897, Mr. J. E. Casswell made the highest average for 20 rams. The rams of 1896 were all sold privately for export. During the last two years the following amongst other noted sires have been used: Bakewell Councillor and Baron Rigby, for each of which very high prices have been realized; Laughton Major, Laughton Style, Laughton Choice, No. 5; Ashby George, 60 guineas; Judge, 95 guineas; his son, Laughton Justice Lincoln, 200 guineas; Lincoln, 152 guineas; Welcott, 70 guineas; Lincoln, 72 guineas; and his sire, Laughton Riby. Shire horses, Short-horn bulls, and Dorking fowls are also bred. Inspection and correspondence invited. N.B.—Laughton Choice won 1st at the Royal and a pen of 5 shewards by him won 1st at Royal Doncaster. Visitors met by appointment. TELEGRAMS: Casswell, Folklingham, England.

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And Cattle Wash. Non-poisonous and reliable. Mail orders promptly supplied. Imported and for sale by

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GLENHYRST POULTRY YARD.

EGGS FOR SALE.

White Wyandotte, White Plymouth Rock, Cornish Indian Game, Black Minorca, Hooded, Black Langshan, White Langshan, Barred Plymouth Rock, Silver Laced Wyandotte, \$1.50 for fifteen, or \$2.50 for thirty. Packed in patent boxes. Will replace at half price any not fertile. Also poultry supplies. Will exchange any of the above for first class Tamworth pigs or light Brahma Pullets, say strain. Doves and Shropshire sheep, Tamworth pigs, Iberian ponies, Jersey cattle all ages. Registered. Prices right. STRATFORD BROS., Brantford, Ont.

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Preliminary Notice

THE Fifth Annual Sale of Registered RAMS, EWES, and GIMMER SHEARLINGS, the property of Members of this Association, will be held at GREAT DRIFFIELD, on Thursday, September, 15th, 1898.

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Pedigree Live Stock Agent and Exporter

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Offices: Fitzalan House, Arundel St., Strand, London, England.

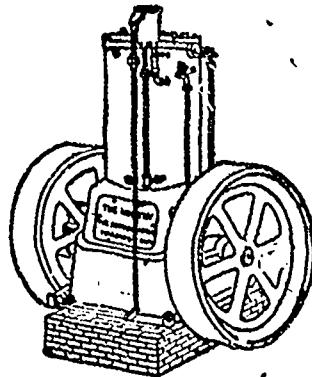
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The cheapest and handsomest form of power ever used on the farm. Is absolutely safe, and farmers can rely on it on any amount of work in sight. Set it going and it will run for hours, with little or no attention. Fully guaranteed in every particular.

Our Booklet for the asking. Send for it.

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Who has the natural ambition and the healthy, manly instincts of youth, desires before almost anything else to be the owner of a real, genuine watch. To him it is the very sign and insignia of manhood and the custody and mastery of it gives him an importance which no other personal belonging can bestow. Every boy who reads FARMING

CAN GET A HANDSOME WATCH FREE

by doing a little work for us among his friends. Fancy a genuine nickel, open face, stem-wind, pendant set, up-to-date Watch, a perfect time-keeper, and equal in appearance to the best watches made

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Everyone who keeps cows should have a Babcock Milk Tester and find out what each cow is doing. Then discard the poor ones and keep only those which will return a profit for their keep. What easier way of securing one than by getting new subscribers to FARMING?

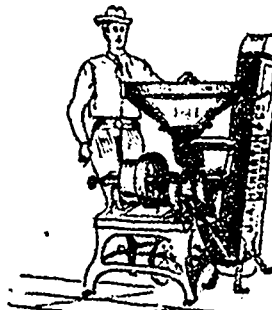
The Book of the Dairy. By W. Fleishman. 344 pages; illustrated. Price, \$3.50. Sent free for five new yearly subscriptions at \$1 each. Testing Milk and Its Products. By Professor Farrington and Wall. Price, \$1. Free for two new yearly subscriptions at \$1 each.

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ROOT CUTTER

Turns all roots and vegetables into Fine Stock Food. Indispensable to dairyman and sheep breeder and of greatest value to general farmer and poultryman. Cuts fine, no clogging. Half Feed Making Machine takes out all dirt; saves the knives; fully warranted. Send for FREE CATALOGUE. THE H. CAMPBELL FARMING MACH. CO., 61 Chatham Street.

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Windsor Salt

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# FARMING

Vol. XV.

JULY 5th, 1898.

No. 44.

## FARMING

AN ILLUSTRATED WEEKLY JOURNAL DEVOTED TO FARMING AND THE FARMER'S INTERESTS.

Published every Tuesday by

THE BRYANT PRESS,

44-46 RICHMOND STREET WEST TORONTO, CANADA

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Representative for Great Britain and Ireland, W. W. CHAPMAN, Fitzalan House, Arundel St., Strand, LONDON, ENG.

## TOPICS FOR THE WEEK.

### Agricultural News and Comments.

Adulterating flour with whiting seems to be increasing on the Continent. Millers and bakers are frequently receiving circulars offering whiting for mixing purposes. In France, recently, people eating bread, made from flour containing 45 per cent. of whiting, were taken very ill. The law, however, is very strict against such adulteration. The seven persons found guilty in connection with the above adulteration were fined from £110 to £100 each, besides imprisonments ranging from six months to two years.

The dairymen and farmers of New Zealand are maintaining a steady fight against the steamship companies with a view to obtaining better freight rates on products sent from that colony to Great Britain. The trade has also been hampered by the irregularity with which the steamers have sailed. Last season a reduction of 7d. per box was obtained on ocean freight rates for butter. This season it is expected that there will be sailings of steamers regularly every fortnight.

There are now 2,960 Mennonite families in Manitoba, numbering 20,000 souls. In 1874 there were only 180 families. They have at present under cultivation 235,160 acres of land. Last year they harvested 3,500,000 bushels of grain exclusive of flax. Of flax they raised 950,000 bushels. They own 11,000 horses, 8,300 cows, and 10,000 young cattle. In 1874 56 they borrowed \$195,000 from the Dominion Government at 5 per cent. interest, and from their brethren of Waterloo, Ont., \$20,000 without interest. In 1891 they had repaid the whole amount of these loans with interest, and they are now quite free from debt, and prosperous in every respect.

Nine out of ten breeders are breeding for the market, yet eight out of the nine rarely consult market requirements in the choice of brood mares, or in the selection of a stallion. Breeders of high class cattle cater to the tastes and requirements of those buyers most likely to pay remunerative prices, and breeders of horses intended for market should follow their example.

A chalder is a term used in regulating the amount of stipend a minister in Scotland receives.

Its value is based upon the average prices for a period of seven years of barley and oatmeal. The average prices and the value of a chalder are arranged by the Friar courts in each county, and consequently the amount a minister might receive in one county would be larger than one might receive in another county. The value of a chalder has been steadily decreasing for the last thirty years and a movement is on foot to do away with the system.

It is claimed in some centres of Great Britain that wheat will not fall very much in price till about September, if it does then. The grounds upon which this opinion is based are that the world's wheat crop of 1897 was at least 210,000,000 bushels below that of 1896. "Remainders" from former harvests decreased by 150,000,000 bushels during the 1896-97 harvest year, leaving probably the smallest remainder since 1880. In Europe the stocks in growers and dealers' hands are smaller than at any time within thirty years. All this being so it is expected that the present harvest will be called upon to supply a harvest year of thirteen months. In the face of the present condition of the wheat market and crop prospects this seems to be a too sanguinary view.

The majority of people eat more meat than they require. Meat eaten once a day is sufficient for a person not engaged in manual labor or who does not take much outdoor exercise. For persons whose work lies chiefly indoors a mixed and varied diet is most conducive to good health. Good ripe fruit is a wholesome diet at all times whether a person works out or in doors.

In Nebraska an Agricultural Students' Co-operative Association has been formed for the purpose of encouraging, after they have returned to the farm, a continuation of the habits of study and experimentation that have been formed by the students of the agricultural college. In this the students of the Nebraska College are following the example of our own students of the Ontario Agricultural College when the Experimental Union was organized some years ago. There can be no doubt as to the benefits to be derived from such organizations.

A lasting test of the value of an animal is that it shows off to as good advantage outside of the show ring as it does in it. When we find a show animal doing so we may conclude that it has qualities of the highest kind. But such is not always the case. Very often an animal, and more particularly a horse, that shows off to splendid advantage in the ring may do the very reverse a few days after the show is over. This may be either the fault of the animal or the owner. Probably more of the latter.

Some peculiarities of breeds breed out pretty easily after two or three generations, but there are others which persist after the original blood which put them into power has become very much diluted. If the more desirable peculiarities are retained, all well and good; but if, after a couple of generations, the undesirable traits remain, it will be well to discard the animals of that strain for some others with better records.

In Austria and Germany sugar beets are largely grown. In the former country the farmers received for beet roots 78,000,000 florins, which is said to have been 40,000,000 more than would have been obtained if the same area had been planted with

wheat. Last year's export of beetroot sugar from Austria reached 94,000,000 florins, and the exports for the last thirty years totalled 1,177 million florins. In Austria the cost of cultivation, including rent, taxes, and delivery, averaged about £10 per acre, in Germany, about £12 12s. In Ireland, where an effort is being made to develop the beet-sugar industry, it is estimated to cost £13 per acre. On the continent the factories pay the farmer from 17s. to £1 a ton for sugar beets, and the grower gets the pulp and the leaves.

### The Export Bacon Trade.

TOO MUCH INFERIOR QUALITY PRODUCED. CORN AND CLOVER FEEDING CAUSING TROUBLE

Our export bacon trade is growing in importance every year. Though this is so, and though Canadian bacon is gradually gaining an enviable position in the British markets, the fact must not be lost sight of for a moment that, in order to retain the position we have gained, and to develop the trade still further, there must be everlasting vigilance on the part of every one connected with the industry. The farmer who grows and feeds the hogs, the drover who buys and ships the hogs, and the packer who kills and prepares the hogs for the British markets have certain specific duties to perform, and upon the manner in which each one performs his duties will depend the present and future success of the industry. These three factors must work in harmony and in perfect understanding with each other, not only for the good of the trade as a whole, but for their own good and profit. Quality counts in this trade as well as in anything else, and the real quality is given to bacon when the hog is under the farmer's control, and is being fed and cared for by him. The farmer, then—a fact which many of them do not realize—is the important factor in the development of the export bacon trade. All the packer can do is to cure the bacon properly when it gets into his hands. If the farmer does not supply him with a typical bacon hog, properly fed, the packer cannot supply the kind of bacon which the British market demands.

We had the pleasure last week of an interview with Mr. J.W. Flavelle, manager of the Wm. Davies Packing Co., who has recently returned from a business trip to Great Britain. Though Mr. Flavelle speaks encouragingly of the future of the Canadian bacon trade, yet it is not all smooth sailing, and our farmers have a great deal to learn yet in regard to growing and feeding the bacon hog. The chief difficulties with the trade at present are an over production of small sides made from hogs weighing from 150 to 160 pounds and serious losses from a soft and secondary quality of bacon.

There is a limited market for these small sides, but when this market is over-supplied, a loss to the shipper is certain to result. Such is the case at the present time, and there have been serious losses to packers during the past few months, because altogether too many hogs have been prepared and finished for market weighing between 150 and 160 pounds.

In addition to the above, Mr. Flavelle states that their firm has never had such difficulty with soft hogs as during the past four weeks. This trouble is entirely due to faulty feeding, and at the moment is largely the result of free feeding of corn and clover.

The packer in this country must of necessity

take both good and bad quality of hogs; for the reason that he does not see the hogs till they are in his yards, and also because the real quality of the meat cannot be detected till the hog is cut up. He can of course instruct the drovers not to buy certain classes of hogs, or refuse to purchase hogs from certain districts, but so far as the real quality of the hog is concerned it cannot be known till after the slaughter-house has been passed. In Denmark and Ireland the situation is quite different. The hogs are taken to the packing houses direct by the farmer. The hogs are killed and then graded according to quality, after which the farmer is paid a price in keeping with the quality of his hogs. This practice cannot be followed in this country, and consequently the packer is to a certain extent at the mercy of the farmer as to the kind of bacon he is going to get from the hogs he buys. The packer, though realizing his position very keenly in this regard, feels that in the long run this condition of things must react upon the producer if the quality of the bacon is not of the best.

Mr. Flavelle is of the opinion that there is too strong a tendency to force young pigs along. The farmer seems to be in too big a hurry to realize, and forces his hogs too much and too quickly after they are weaned. "His tends to produce a short, stout hog, the very opposite of what is required for the bacon trade. To guard against this a young pig should have food for the first four months that would cause it to grow and gain in length, developing flesh and muscle rather than fat. After this, and till the pig is six and a half or seven months old, when it should be ready for market, good substantial food, such as chopped peas, oats, barley or shorts, should form the main part of its diet. During the last three months no corn, clover, or foods that will produce a soft quality of pork, should be given.

Many do not fully realize the extent to which corn is fed to hogs even in Ontario. This practice exists more in Western Ontario than in the other half of the province. In some sections the packers are refusing to buy the hogs because they are afraid of the corn feeding. Mr. Flavelle instances a case where out of 765 sides from one district in Western Ontario 465 were soft and secondary in quality. We are also informed that at many of the cheese factories where hogs are fed corn is fed in conjunction with whey. While whey is a good food for hogs it must be fed with food such as shorts, ground oats, barley, peas, etc., to get the best results. Corn and whey are fat producers, and when fed together produce oily fat and somewhat soft pork. We state these facts plainly, because we believe it to be in the best interests of our bacon trade to do so. Though it is necessary to have the right type of hog to begin with, yet the great difficulty with the bacon trade at the present time is more a question of feed than of breed.

The following cable, received by the Wm. Davies Co. on June 30th, will give a fair idea of the present condition of the export bacon trade in small and secondary sides:

"Market overdone with all kinds of small and secondary soft product. Quantity arriving in a forward condition, meaning forced sales at 32s. to 36s."

These figures are from 11s. to 15s. less than the bacon cost to produce, and must mean a loss to somebody, which will eventually react upon the farmer. We do not quote the above because we wish to show the market to be in a dilapidated condition, but as a word of warning. Prices for the right quality of bacon are still good, but for this soft, secondary quality only a demoralized market exists. A word to the wise should be sufficient, and we trust that every feeder will take the lesson home, and only produce the kind of hog the market requires.

### Selling Eggs by Weight.

Apart from quality and freshness, the weight of an egg is an important factor in determining its market value. In Great Britain, the gradation of

value by weight is by half pounds, what are called "ordinaries" weighing  $13\frac{1}{2}$  pounds, and "re-selected" weighing  $15\frac{1}{2}$  pounds per long hundred (120 eggs). As our export trade in eggs is with the United Kingdom, and, as we are endeavoring to develop that trade, it is important that our poultrymen should accustom themselves to selling eggs by weight. In fact, if the export trade is not considered, it would be better for both producer and consumer if all eggs on the local markets were sold by weight, and not by the dozen, as is now the case. At present, with a uniform price of say ten cents per dozen, neither the one nor the other gets justice. A producer should get more for large eggs than for small ones, and likewise the consumer should be willing to pay a higher price for the larger eggs than for the smaller ones. The only fair way, then, of regulating the price is to sell the eggs by weight only.

England imports a large number of eggs every year from Russia, and in connection with this trade some valuable data have recently been secured of interest to poultrymen. The weight of Russian eggs varies considerably—from less than 1.6 ounces to 2.13 ounces each egg, or from  $12\frac{1}{2}$  pounds to 16 pounds per 120 eggs. The weight of Russian eggs represents on the British market a value averaging about 6d. per pound. Imported eggs, packed in straw and woodwool, lose on an average from .75 grains to 1.20 grains per egg daily during transit. During cold and damp weather this evaporation falls to .45 grains, and in dry and warm weather rises to 1.80 grains per egg daily. In the autumn evaporation during transit is about one-half the general daily average, and in summer about double the annual daily average, or about four times greater in hot weather than in cold. One striking fact brought out is that the evaporation is influenced by the size and form of the egg. During transit it has been found that eggs weighing  $13\frac{1}{2}$  pounds per 120 lose almost double of that of eggs weighing 16 pounds per 120, and with very small and long eggs the loss in weight assumes a still greater disproportion.

On an average the Russian eggs are from five to six weeks old by the time they reach the British retailer. The average daily loss from evaporation during this time is about 1.10 grains per egg, or an average loss of from 8 to 10 pounds upon every 1,440 eggs before they can be marketed in England. Newly-laid eggs gathered in the district of Jamboff, and weighing  $15\frac{1}{2}$  pounds per 120, were less than 15 pounds on delivery in London; also new-laid eggs, weighing  $13\frac{3}{4}$  pounds at Kazan, were much less than 13 pounds when received in Hull, and loss from this cause represented a diminished trade profit averaging from 5s. to 8s. per case, exclusive of waste from other sources. In 1896 Russia sent about 1,000,000 cases of eggs to England.

In writing on the export egg trade in the issue of May 31st we gave the experience of a Glasgow merchant who claimed, that aside from the question of weight, the larger eggs were worth more than the smaller eggs, because they were of better quality. In connection with the above facts concerning the Russian trade another important point is brought out, and that is, that the smaller eggs will lose considerably more through evaporation than the larger ones. In the Agricultural and Dairy Commissioner's report mentioned elsewhere a shipper is quoted as stating that 90 per cent. of the stale or bad eggs have been small eggs with white shells. There is a good demand in Great Britain for eggs weighing fifteen pounds per 120. For every half-pound which eggs weigh less than fifteen pounds per great hundred the value is lessened by about one cent per dozen. Eggs for the English market should be graded into three sizes, large, medium and small.

From the above data it will be seen that in many respects the larger eggs are superior to the smaller ones. Then why should not a higher price be paid for the larger eggs? In Great Britain, whether the eggs are purchased by weight or by the dozen the larger eggs will command the higher prices, which, if figured out, will be found to be more

per pound for the larger eggs than is received per pound for the smaller eggs. With the exception of a few of our larger cities the weight of an egg is considered very little in buying or selling eggs. The farmer takes his eggs to the local market, and, as a rule, whether they are large or small, he will get the same price. This is evidently unfair. If, as has been proven, the larger eggs are worth more than the smaller ones, then the producer should be paid accordingly. Until some such method is adopted in the local trade our farmers will never be induced to produce the quality of eggs that will command the highest prices in the British markets.

### The Success of the Export Butter Trade Depends Upon Co-operation.

Normandy butter is getting into disrepute. Its great fault is lack of uniformity. This is accounted for by the fact that the butter is made at private dairies working independently of each other. An effort is now being made to introduce the co-operative principle and have the butter made at central factories. Unless something of this kind is done the former extensive trade in Normandy butter will be a thing of the past.

We have had the same difficulty to contend with in Canada. Fifteen or twenty years ago Canada was exporting more butter than she is doing now; but the quality of the butter sent over then was very varying in quality. There were almost as many different colors, grains and flavors as there were packages, and the consequence was that as soon as the British consumer found that he could get a more uniform and better quality of butter elsewhere he quit buying the poor Canadian stuff. Since then a new feature has entered into the butter-making industry of this country, and to day the co-operative creameries of Canada are sending over a quality of butter that in nearly every respect is equal to any butter placed before the British consumer. In this way the Canadian creamery men are building up an export trade in butter that is likely to assume very large proportions in the near future.

The essentials of good export butter are: Mildness of flavor, evenness and lightness in color, neatness of package, and uniformity throughout. These can best be secured where large quantities of butter are desired, when the butter is made in central creameries on the co-operative plan. By a number of dairymen co-operating in this way more uniform and up-to-date methods of manufacturing can be taken advantage of and a great saving in the cost of making and of marketing and of transportation secured. By adopting the separator method more and a better quality of butter can be made than by making butter on the old plan, and using the gravitation method of separation.

It is well to notice, however, that because a dairyman is supplying his milk to a co-operative creamery he is not relieved of all responsibility in regard to the quality of the output. As with the co-operative cheese factory so with the co-operative creamery, the patron or the man who supplies the milk has great and important duties to perform which, if neglected, will materially injure the success of the co-operative scheme. These duties are all connected with the care of the milk or cream before it leaves for the factories. To make a success of any enterprise a right start must be made. The dairyman begins to make butter or cheese the moment he begins to take the milk from the cow. In fact it may be said that he makes a commencement when he feeds or waters his cows. How very essential it is, then, that everything in the initial stages of the process should be done in the proper way. Pure water, succulent food, and the practice of cleanliness and care in preparing the milk or cream for the creamery, are the points that should be given strict attention by the patron.

In contending for the co-operative principle in the manufacture of butter for the export trade, we do not hold that good butter cannot be made in

private dairies. In many instances as good a quality of butter has been made in a private dairy as in a co-operative creamery; but, while this is so, it does not follow that every private dairy can or will do so. The great fault with butter gathered together from private dairies is its lack of uniformity, and in more respects than one is this true. It is because of this fact that it is not possible to gather up large quantities of butter for export except from the co-operative creameries. The success of our export butter trade, then, depends upon co-operation, and the more complete the co-operation the greater the success will be.

### Stamina in Live Stock.

In a recent issue of *The Breeders' Gazette*, Professor Thomas Shaw treats this subject in a thoroughly practical way and claims that the average improved animal of to-day will not compare in stamina with the average improved animal of former centuries. The following extract gives the drift of his argument:

"In the improvement of live stock, many changes have been made, and some of them of great significance. The meat making animals of to-day stand in strange contrast to the meat-makers of two or three centuries ago, and the same is true of the average dairy cow. The new and improved breeds of American swine are a wonderful advance in comparison with the razor-backs of a hundred years ago. But there is one respect in which there has been a retrogression all along the line. We have good reasons for the belief that the average improved animal of to-day will not compare in stamina with the average animal of former centuries. While breeders have improved the form and the character of the digestion they have paid all too little attention to the improvement of the lung power and the action of the heart. There is no denying it; the average of the improved herds and flocks of to-day are delicate. In some instances they are held firmly in the grip of weakness; hence they go out into the land, not to effect improvements, but to transmit inherent weakness. Take, for instance, the average Shorthorn of to-day. In comparison with the average grade it is delicate. Take the average dairy herd of purebred cows and it is in many instances seething with tuberculosis. Take the average Poland-China and with all its excellence in feeding qualities, its breeding qualities, its bone and its all round stamina are not equal to those of its ancestors half a century ago. The bugler of the vast army of improvers of live stock, therefore, should blow a loud blast that will call a halt in some of the methods practised by breeders of purebreds the world over. Two or three leaves they must tear out of the book of past practices and they must begin again. One of these is the leaf of in-and-in breeding, a second is the leaf of selection, and a third is the leaf of environment."

There is certainly much food for thought for breeders of purebred live stock in this paragraph. If it is true that, in the great advancements in breeding methods of late years, form and performance have been gained at the expense of stamina the subject is well worth considering. Not that form and performance should not be cultivated, but that stamina in live stock has been, to a certain extent, lost sight of in the improved breeding methods of recent years. As Professor Shaw points out, the one can be developed as well as the other if only right methods are adopted, and some methods now practised discarded or modified.

In regard to the effect in-and-in breeding has in causing weakness to be perpetuated, he points out that, though it may be used as a short cut to improvement when breeds are evolved, it may be given a temporary place now and then in the practice of wise breeders, but the average breeder of purebreds has no business to tamper with it. When long continued, its effects are only baneful with both animals and men. In regard to the second leaf; selection based upon performance in the ancestry for several generations back has been given first place in the creeds of all improvers in the past. Professor Shaw claims that this should not be so unless such performance in the ancestry is accompanied by strong evidences of vigor in the animal selected. In doing so, he does not urge that performance in the ancestry should be ignored. It is of great account, but only when accompanied by undiminished vigor in the progeny. For instance, of what avail will renown in the ancestry prove in a young bull reeking with tuberculosis? As to the question of environment, it is filled with mistakes. In seeking stamina by

proper environment do not go to the extreme of undue exposure.

In concluding his article, Prof. Shaw says:

"We have reached an era in live-stock breeding. We do well to heed that it is so. For good, all-round useful males of the beef and mutton classes there will undoubtedly be a good demand for years to come. This demand is going to set men breeding them. May the work be properly begun! Let it be placed on a proper basis. Men who begin breeding cattle now have no business to begin on foundation animals that have not been tested, and those who are now breeding are not justified in bringing into the herd a bull that has not been tested for tuberculosis. Not a few of our purebred herds are so contaminated with this deceitful disease that to choose sires from them without testing them would be suicidal to the interests of the individual who made such a choice. Correct type is a grand thing in breeding animals. But if type is carried to the extreme of bringing along with it delicacy it is overdone. The sharp crops and the spare form in the dairy cow are very good in their place, but if they are sought so far as to unduly contract the chest let us have a little less of them. The compact form and easy-keeping qualities in the improved hog are certainly desirable, but, if we get these so perfected as to impair breeding qualities and weaken locomotion, let us have a hog a little longer in body, though it should take a little more food. The broad, deep and thick body in the beef animal is good, but if we secure it to the extent of general sluggishness let us call a halt in that direction."

### Hired Help on the Farm.

"I want to hire a man and wife, with no children, able and willing to work on a farm. I will pay \$30 a month at present, and increase the wages if they prove trusty. I want the man to help me work my farm, and his wife to help with the housework."

Referring to this paragraph from one of its readers in the State of Washington, *The Rural New Yorker* says:

Some married couples might be inclined to turn up their noses at the idea of giving their joint services for \$30 a month; but we will warrant that not one-tenth part of the farmers, the country through, will have so much clear money at the end of the year as a couple working on these terms. Of course, board and washing are included, and these are worth at least \$20 a month more for the two, making the actual amount received not less than \$50 a month or \$600 a year. The sole outlay is for clothes and these need not be expensive. Compare this with the income of the city man receiving, perhaps, \$1,000 per year. His house rent will be anywhere from \$15 to \$30 per month, say \$250 per year. His railroad fare will be about \$75; his bill for groceries, \$125; meat \$100; milk, fruit, etc., \$100; fuel \$50, total, \$700. This leaves only \$300 to buy clothing, which must necessarily cost more than on a farm, pay doctors' bills, church and other expenses, and the numerous little incidentals that are continually arising. Carriage rides, excursions, and any little outings must be paid for in cash. The above estimate of expenses is a very modest one, and does not take into account the keeping of a servant. So it would seem that, under the proposed arrangement, the hired man and his wife would have more clear cash at the end of the year than the city man who is working for what many people consider a very fair salary."

The above shows us the "hired help on the farm" question in a new light, and, though the comparisons are made under American conditions where city living is higher than in Canada, this comparison is well worth considering by everyone working on a farm. It will be seen that the man living in a city on a fair salary hasn't sunshine all along his pathway. But if the comparison is made with the average working man of the city the advantage is much more in favor of the farm. There are many young men and married men with families who are working in our towns and cities for a mere pittance, who would have a better living and more money at the end of the year if they engaged as hired help on the farm.

But, in the face of all this, young men and the poorer country people continue to flock to the cities. We may well ask the reason why. The city has attractions, no doubt, which the country cannot give, but, when these are compared with the clear gain to be derived from working on the farm, the latter outweighs them. It may be that if shorter hours, excepting during harvest, were observed on the farm it might be easier to retain the hired help. When a young man, for example, has to work from daylight to dark every day during the year he begins to feel that farming is a kind of drudgery he wants nothing to do with, and prefers to work in the city where the hours of work are shorter, though the net gain is not so great.

### The Agricultural and Dairy Commissioner's Report.

The report of the Commissioner of Agriculture and Dairying for 1897 has just been issued. To say the least it is one of the most valuable and complete reports ever issued by the Dominion Department of Agriculture. As promised a month or two ago, it contains an immense amount of practical and interesting information regarding the many lines of work which have come under Professor Robertson's charge since he assumed his present duties. These include among other things: A summary of the dairying service in the provinces; the Dominion dairy stations; the winter dairying movement; cold storage; visits to Great Britain and Ireland; trial shipments of fruit; eggs and poultry; the production of pork; dairy legislation; registration numbers of cheese factories and creameries; report of the Assistant Dairy Commissioner; reports of agents in Great Britain; and dairy bacteriology.

The portion of the report of most vital importance to the farmers just now is that referring to the cold-storage shipments of fruit, eggs and poultry and the production of pork. Reliable and specific information, with suitable illustrations, is given on these topics, which should be read by every dairyman, fruit-grower, poultryman and swine-breeder in the country. This information bears more directly upon the methods to be adopted and the practices to be followed in developing our export trade in butter, fruits, eggs, poultry and bacon. Everyone realizes the importance of definite information along these lines, and, therefore, the commissioner's report is timely and to the point. We shall, for the benefit of our readers, give suitable selections from this and other reports as the occasion demands.

### Diversified Farming.

One of the chief beauties of Canada as an agricultural country is that its climate and conditions of soil admit of a diversified system of farming being carried on. Too many Canadian farmers do not fully appreciate the immense advantage this gives them over the farmer in a country where the conditions will only admit of one or two lines of farming being carried on. As a rule, countries where only one or two lines of farming can be practised are more subject to famine. For example, India, when the wheat crop is a failure, or China, when the supply of rice runs short. In North America, and more particularly in the Dominion, there is little if any danger from famine. If one crop fails, the conditions that have brought about the failure are usually conducive to the growth of another crop.

The Canadian farmer, then, should make the most out of the advantages he possesses and follow a system of diversified farming. Though wheat brings a high price, it will never pay to grow wheat and nothing else. Likewise it is not advisable to follow a system of grain farming only; nor on the other hand is it good practice to go into stock altogether, though we believe that for Ontario and the Eastern Province a system of farming in which stock-raising and dairying largely predominate is the best line for the farmer to follow. To be a grain farmer it is not necessary to sell the grain direct off the farm. It is sold just the same if it is fed to live stock, and their products taken to market.

According to *The National Stockman* the supply of young cattle is increasing in some of the states. Throughout 1896 and 1897 comparatively few calves were marketed. Pastures were generally abundant, beef cattle sold well, and there was every inducement for farmers to increase their production of beef. In the Ohio valley a good many yearlings were bought from Canada. All these influences have tended, within the past two years, to replenish the beef stock on the farms but of course it has been impossible in so short a time to overcome the losses caused by years of depression and drought.

## DO NOT NEGLECT THE COW AND HER MILK IN HARVEST TIME. THE CAMPBELL METHOD OF SOIL CULTURE.

During the next six weeks all available help on the farm will be utilized in taking off the present, we hope, bountiful harvest. Of late years new and improved appliances have made it possible to get the seeding done in such good time that harvesting practically comes on all at once. That is, there are no vacant days on which other work can be done. From the beginning of the fall wheat harvest till the last sheaf of oats is in the barn, there is a continuous round of reaping and gathering in.

In many respects this is an advantage for all concerned, as it enables one particular line of work to be carried on to completion, and, if the weather is favorable, makes harvesting comparatively easy. But in many ways it would be better for the other lines of work on the farm if there were a few intervening days when something else could be done. The roots and corn do not stop growing because harvesting has begun, and while they grow they need attention. Likewise the weeds will grow also, and unless the cultivator is kept going pretty thoroughly these enemies of good crops will soon win the battle.

There is one special and also an important branch of the farm duties that is very often neglected while harvest is on, and that is the dairy. Too often on the average dairy farm when harvesting begins the cows are not as well looked after nor the milk for butter or cheese-making as well cared for. July and August are the two most difficult months in the year for making good cheese and butter. The reason for this may, to a certain extent, be due to the care and attention, which the farmer usually gives his cows and the milk, being withdrawn for the harvest season. This is a serious mistake. The cows and the milk need greater attention during these months than any other. If the cows do not get good food and good water the milk will be of inferior quality, and if the milk is not thoroughly aerated and cooled a good quality of cheese and butter cannot be made from it. So it will pay dairymen not to relax their attention to the cow and the milk though a part of the harvest spoil.

### SALTING HAY.

This practice does not seem to be as much in vogue now as in former years. There are various opinions regarding the matter. But as yet there appears to be no sufficiently good reason advanced why properly-made clover hay or any other good hay should have any salt at the time of storing. It is claimed by some that salt improves the keeping and feeding qualities, but this is doubtful. Good hay is undoubtedly all right without salt, which adds no additional feeding value to it. Sometimes stock will be induced to eat inferior hay with greater apparent relish if salt has been applied; but that is claimed to be due to the natural craving of the animal for salt, and not to the added excellence or nutritive value of the hay. If stock are supplied with sufficient salt they will not show any particular eagerness for the hay because of the salt.

This method of soil culture is practised in some of the Northwestern States. There are many farmers, however, who have never heard of it, and know nothing about its operations. In this country each farmer seems to have a system of his own, which he follows irrespective of results or the nature of the land. There are comparatively few farmers who follow some definite plan of crop rotation or who aim at increasing and keeping up the fertility of the land by certain methods of soil culture carried on over a period of years. The general plan is to work for the moment only and not to look more than one year ahead in their methods of cultivation.

The Campbell method of soil culture for grain is based upon a new principle. To begin with, deep plowing is necessary, about eight inches at least, and is followed, as close as practicable, with the Campbell Sub-surface Packer, a special tool which packs the bottom half of the furrow and leaves the top loose and in a condition to receive the seed. It is drilled with a special drill, the rows being twenty inches apart, the drill seeding six rows at a time, using wheat at the rate of about twenty pounds per acre, and oats about one-half bushel. Then comes the cultivating, which is done with the same machine as the drilling is done with, removing the seeder box and the runners and putting on cultivator teeth in their place and cultivating six rows at a time, the same ones that were seeded. About thirty acres a day can be cultivated with one machine and two horses. This cultivation must begin as soon as one can follow the rows nicely and continue until the grain is in blossom, and should be done at least once a week. Although there can be no stated rule to go by in this respect, the idea is to keep the top two inches loose and dry, thus forming a dry mulch, and the dryer and hotter the weather the more one has to cultivate, and also after a rain, as soon as the ground will work up fine.

Mr. S. D. Gregg, of North Dakota, in giving his experience in *The Turf, Field and Farm* on this new method, says:

"I had in sixty acres last year under this method with very satisfactory results, although it was all sowed from three to five weeks later than my grain put in the old way. I had ten acres of oats that went about twice as many bushels per acre as they did under the ordinary method. My wheat made about the same average as it did the old way, but if we can get as many bushels per acre as by the old way, we are ahead, as the saving in seed this spring will pay for the extra cultivating, and our ground is left in the best condition possible. I am discing up a lot of the ground where I practised the Campbell method last year and put it in with a press drill, and I believe it will equal corn ground or summer fallow.

Now, fallow farmers of the semi-arid belt, look into this matter and see what there is in it. Try it on a small scale without special machinery, and be convinced. The biggest argument I have met against it is that it is too much work. Now, I will say to all who look at it from this standpoint, that they had better quit farming if they are afraid of work, and move into the crowded cities and join the thousands of poorly-paid laborers and idle men."

### SELECTING FRUIT FOR MARKET.

To sell fruit of any kind to the best advantage it should be carefully and

closely selected. The best quality should then be properly packed, and put upon the market in the best possible condition. Neatness and convenience in putting up the fruit so as to attract the attention of the customer will pay well, as the better price received will pay well for all the extra trouble required to market it in the best condition. If the fruit is carefully sorted, and all poor specimens discarded, the balance will bring a sufficiently higher price to pay for the lessened quantity.

The best time to assort is when the fruit is being picked. A little care at this time will avoid unnecessary handling and more or less damage, as it is almost impossible to handle fruit without more or less risk of damage. So far as can be done, and yet place the fruit on the market in the best condition, it should be handled as little as possible.

As a rule when fruit is scarce most any kind of fruit will sell well. But even then that which is carefully sorted and neatly packed will bring a much better price, and when it is plentiful the better fruit will usually sell readily at good prices, when it is difficult to sell the poorer grades at any price. It is poor economy to mix all grades of fruit together with the hope of making the better fruit sell the poorer. When this is done the better fruit is sold for less than it is worth, while the poorer fruit does not bring any more than it is worth.

### PRINCE EDWARD ISLAND NOTES.

By JOHN HAMILTON, New Perth, P. E. I.

Farm work was retarded on the island by unfavorable weather in May. The ice blockade set in as usual along the north shore, and prevailing winds, with frequent cold rains from that quarter during the month, rendered the ground cold, moist and disagreeable for men and teams. There were many broken days when no outdoor work could be done.

When the land was ploughed last fall in dry situations, fields of oats were got in on upturned dry sod in good time in spite of these drawbacks. It was not until about the 20th that the bulk of the seed wheat was sown. About the beginning of June the weather improved so that manure could be handled and corn and potato planting attended to.

Turnip sowing is the latest of our cropping processes on the island, and farmers, as I write, are busy manuring, liming and drilling lands for that crop. In six or eight days the planting and sowing season on the island will close for the present year—a week or so later than the usual time.

Early sown grain has come up remarkably well, and clover on new meadows seldom had a finer appearance. Potatoes are also peeping above ground, and pasture fields, owing to the moisture of the weather and absence of scorching suns, furnish grass in abundance for cattle. Cheese factories all over the island are in active operation. They began work, except in a few cases, about the middle of May. Milk is received in fair quantities, and the supply increasing every day.

Prices of farm staples have ruled high this spring, e.g., potatoes 45c.

per bushel, oats 40c., and pork by carcass 5c. to 6c. per lb., etc.

Our island orchards are but small enclosures, their produce being seldom taken into account in any published estimates of yearly returns. Last year's apple crop and stone fruits were scant and inferior, strawberries being an exception among the small varieties. This year there is, so far, abundant promise of a fine fruit crop, judging from the splendid bloom of all our fruit-bearing trees and garden shrubbery with no frost of any account to kill the blossoms.

Roads are in excellent condition for wheels of all kinds from the bicycle to the farmer's truck wagon. The forest is in full leaf and sentinel birches, beeches and maples, interspersed with evergreens, stand in groups and clusters on the heights and levels and along the highways, contributing their spring quota of enjoyment, whether for purposes of shade, shelter or adornment, as well to the passing traveller from abroad as to the native denizen. The alien summer visitor who has a weakness for tender lamb with mint sauce, flanked with rich ripe strawberries and luscious cream, should endeavor to strike the island about the first days in July.

### INTENSIVE FARMING.

Its up-to-date application. A reply to Mr. Wallace. By D. M. MACPHERSON, Lancaster, Ont.

The issue of *FARMING* of the 17th of May contained an article by T. C. Wallace on intensive farming, which I desire to not let pass without some criticism. And, as reference was made in this article regarding the system of farming as practised on my farm, I wish to publicly correct some conclusions therein arrived at, and principles stated, which from my standpoint are wrong and misleading—not for the purpose of resenting any personal feeling thereat, but for the purpose of bringing out important discussion and if possible thereby disclose some agricultural business facts.

The definition given by Mr. Wallace of "Intensive Farming" is "The production of the largest amount of material containing the largest amount of feeding value for either stock or human consumption." This definition of intensive farming seems to me to be of the "Old School," and does not satisfy the "business" farmer of up-to-date methods and correct ideals.

The ethics and ideals of the "Old School" were, and are, to produce abundance of crops of animal or human foods irrespective of minute calculation of cost or result. Abundant crops are only valuable in proportion to their being profitable, directly and indirectly, singly or in combination. On the contrary, when abundant crops are produced, which contain all the requirements of a balanced food for man or beast at a loss financially, that injuriously affects the future prospect of gain in cash profit and land value. Then, we, the farmers of Canada, do not want that kind of intensive farming, and it must be relegated to "stand by the fence," the same as a rejected implement which does not fulfil the purpose for which it was intended, and thereby give room for something better.

The ideal of the "New School" of business farming is "Maximum Profit,"

Cash and Capital, Present and Future, and, if possible, *Progressive*. This and no other idea will satisfy the young, ambitious Canadian or the foreign emigrant, and is along the only lines on which our agricultural education should be directed and disciplined by the advanced thinkers of the country. From these observations it must be apparent that the intensive farming which will interest practical farmers and attract the immigrant, for the present and in the future, is "Profitable farming."

What is profitable farming?

My definition and answer is: "The producing from year to year, progressively, the highest possible cash profit on capital invested, and at the same time creating the highest possible value in the land producing this profit. If this last definition of intensive farming is the correct one, then it must be clear that maximum profit rather than maximum product or food is the true ideal and practical definition.

To show and prove that the first-mentioned definition is Mr. Wallace's theory and practice is clearly shown by the analysis given, and the reference stated in connection with my farm practice.

Mr. Wallace states: "When we apply the term, intensive farming, to a stock farm we mean that the greatest number of head per acre are properly fed from the land." This means, if I understand Mr. Wallace rightly, that all the requirements of food for a balanced productive ration must be produced on the farm maintaining such animals. In support of this he ventures the opinion that a large part of the hard cash which I yearly paid out for feed could be saved. From this it is quite evident that Mr. Wallace insists that a balanced productive ration should be produced within the farm itself, and also a strong inference is made that the stock of such farms should be raised on the farm as well as the feed.

It is quite evident from these quotations and a careful analysis of Mr. Wallace's writing that he has not mastered the science and art of true business farming.

It must be clear to any business man or farmer that everything a farmer produces on his farm, whether it is grain, hay, cattle or horses, is purchased just as well as if he paid his money to purchase them from his neighbor. The farmer raising young stock and growing grain purchases these by the use of his capital and labor. And it is a vital question to him whether he can purchase them cheaper with the use of his own capital and labor, or whether he can purchase them from his neighbor cheaper. There is not a particle of difference so far as a transaction is concerned, and the honest possession of live stock or stock feed, whether a farmer raises his own stock or possesses the stock raised by another farmer. In both cases they are purchased, only in different forms. But the great difference is, from a financial point of view, to the purchaser which form costs the most or least. Therefore the farmer, who expects to be financially successful, must practise the new school of farm economics and carry out the same principles in practice which the advanced manufacturer in the industrial pursuits carries out, and which are, to purchase his raw material in the cheapest market, to manufacture

his finished product to the largest extent of the best quality and at the least cost, and to sell his finished product at the highest price, aiming thereby to obtain the greatest cash profit and added capital value.

To illustrate these principles more clearly allow me to give a few practical illustrations which have come within my own personal knowledge, and which are now practised and carried out on my own farm. My finished products are milk, beef, bacon, and pork. To obtain milk I require a milch cow and milk feed. Should the cow be raised or purchased on my own farm she would cost sixty dollars at standard productive age. The same kind of a cow can be purchased in the open market for thirty dollars. Again, the milk food required for a milch cow must contain flesh formers and heat producers—in certain proportions along with a certain amount of bulk. From carefully collected data I find that the flesh former part of food can be purchased in the open market for one and one-half cents per pound, and it costs three cents per pound to obtain it by producing it on my own farm. Again, the heat producers and bulky parts of a milk food costs in the open market to purchase about one cent per pound; but on the other hand this heat and bulk food can be produced or purchased on my own farm for less than a half cent per pound. This same thing occurs in all foods required for milk, beef, and pork production. A store steer weighing one thousand pounds costs in the open market about thirty dollars. This same steer would cost on my own farm to produce sixty dollars. Again, a young pig four weeks old will cost in the open market about \$2, and the same kind of a pig can be produced or purchased on my own farm for 50 cents.\*

The practice to follow from these given data is to purchase the milch cow in the open market so long as she can be had at less cost than raising her; the milk food, to buy those parts also which cost less, and produce those parts on the farm which cost less than to purchase them in the open market. Hence, at the present productive cost and market values, I purchase the milch cow and the flesh-formers of milk food, and produce or purchase on the farm the heat-producers and bulk foods. For the acquirement of feeding steers for finished beef production the same practice is carried out. The steers are purchased in the open market, as well as the flesh-former of beef food, and I produce the heat-producers and bulk foods. But with finished bacon pork production, the pigs are produced or purchased on the farm as well as the heat and bulk foods, and the flesh-formers of pork food are purchased in the open market. In this way the greatest amount of milk, beef, and pork is produced per acre at the least cost, giving the maximum profit per acre of land.

Again, in the feeding of all plants grown on the farm, a balanced plant food must contain nitrogen, potash, phosphate, lime, and a number of other mineral ingredients. In selling the finished animal products off a farm it

is quite evident that a quantity of plant food, more or less, is sold off; and therefore to retain or increase the store of plant food in the soil of a farm it must also be evident that an equal amount of these above-mentioned ingredients, which are sold off the farm in "animal products," must be purchased and replaced, for they cannot be ordinarily produced on the farm except nitrogen. Then, if this is so, the same economic principle must be practised, which is, that the greatest amount of these mineral constituents of plant food must be purchased in the cheapest form and sold off the farm to the least extent.

In this connection, allow me to supply some information sought for by Mr. Wallace. I sold a total product value in milk, beef, pork, and veal—\$6,360.10, in the twelve months from November 1st, 1896, to November 1st, 1897—(cheese and butter \$3,250.50; veal, \$212.50; pork, \$1,265.70, and beef, \$1,631.40). A reasonable and fair estimate of plant food value in nitrogen, potash, phosphate and lime would be about \$600.00, as contained in all of the above-named products. In return for this there were purchased, 70 tons of bran, 60 tons of shorts, 60 tons of gluten meal, 10 tons of grain provender, and 30 tons of straw for bedding. The plant food value of the constituents of all these products, estimated on the same basis as the products sold, would be about \$2000.00; and, after deducting the fertility sold from the fertility purchased, there would be still in the neighborhood of \$1,400.00 added to the stock of fertility of the soil to create increased results in cash and capital value for the future. These facts are given to prove that I practise what I preach, which is, to produce, manufacture and sell the largest amount of finished product which carries away the least amount of valuable mineral plant food, and at the same time enables me to purchase the largest amount of mineral plant food to return to the soil, thus effecting a minimum cost of production and creating thereby a maximum cash and capital profit. From this, Mr. Wallace will realize that his "ventured prediction" will not come to pass.

## CORRESPONDENCE.

### PAYING FOR MILK ACCORDING TO ITS QUALITY.

THE REASON FOR PAST FAILURES.—HOW SUCCESS MAY BE ATTAINED.

Editor FARMING:

I have read with very much interest the different articles in FARMING from time to time with reference to the experimental testing of milk with the Babcock tester, and also the expressions of correspondents in favor of paying for milk at cheese factories according to the quality of the milk. I am aware there is considerable diversity of views on this question, but I can not understand why there should be any opposition offered to this method of paying for milk by any honest person who desires his own and nothing more. I am not aware of any other produce of the farm or any other article of commerce, whether offered for sale over the counter, in the sale room, or at the factory, but the price of the article sold is entirely regulated with reference to the quality of the material of which that article may be composed. There are instances where poor articles have been sold for just as high prices as those of superior quality. No one will argue that the inferior article is equal in quality to the superior; neither should anyone attempt to argue that the manufacture of first-class articles

should cease on the ground that articles of poor quality have brought just as high price when placed on the market. The principles of an honest and successful business will warrant no such philosophy. The very highest and most reliable authorities in Canada and the United States unhesitatingly endorse the Babcock tester as a reliable instrument to determine the quality of milk when properly handled, and yet there are men of no experience whatever who say they do not believe anything these experts tell, but that one kind of milk is as good as another so long as it is not tampered with after taken from the cow. While another class, the more honest and greater of the two, admit there is a difference in the quality of everything, but in this milk business they do not believe "their cheesemaker a competent person to make a test."

Now, Mr. Editor, I believe this last reason is nearer the cause of opposition to paying for milk by quality than any other that has ever been advanced. If a lack of confidence in the cheesemaker is the chief cause, and I can show in this letter some way to strengthen that confidence between patron and maker, or drop some idea that those of greater experience than myself can take up and successfully bring about the desired results, I shall feel that I have assisted in a weak measure the upbuilding of Canada's greatest industry. I believe no one disputes the fact that, for any business to be a prosperous one financially, it must be managed by a man or firm who thoroughly understands every detail connected with the business, and employs only such men, if necessary to employ them, who are capable of doing the work.

Our provincial laws require trustees to employ competent teachers holding certificates, and the person practising one of the professions must, before doing so, prove himself or herself competent to do so by examination, while the Dominion laws protect the public by requiring engineers, masters and mates of vessels to prove their ability to discharge the duties of their profession by passing examinations. I would suggest that the Dominion or Ontario Government be asked to pass a law, or amend the present Act, prohibiting every proprietor or company running a factory from employing a cheese or buttermaker unless he has passed a satisfactory examination before a competent board of examiners appointed by the government making the law. The examination could be made free to the applicants, and would be a thorough test of knowledge in handling milk in different stages for manufacturing cheese or butter; the handling of these products in the factory until time of shipping; the care of factory and machinery, and a practical examination by test of the applicant's ability to make the various tests with the Babcock tester and lactometer in determining the butter-fat percentage, the detection of adulterations, and many other questions that might be necessary.

The certificate granted by the board to a successful applicant would be a sufficient guarantee of his ability to practise the profession of a cheese or butter-maker, and would insure the confidence of those who engaged his services that he knew his business. It would prevent incompetent cheese-makers being employed in factories, as only competent men could be employed, and no competent man would have trouble in getting his papers. It would improve the standing of our Canadian cheese, for every factory would have a certified maker. It would cause the patrons to entertain suspicion no longer as to the ability of the makers. Factories would be subject to inspection and heavy penalties would be imposed on those employing other than qualified makers, and whenever a change of makers was necessary at any factory there would be no chance of getting an incapable man, as his certificate would show his per cent. in the various subjects examined by the board. I hope, Mr. Editor, I have not trespassed too much on your space, and would be pleased to have your opinion and others who are interested in the dairy business upon what I believe a most valuable change. Thanking you for space,

I am, yours, etc.,

W. E. ANDERSON.

Rossmore, June 27th, 1898.

Frank C. Bogart, Gosport, Ont., writes:

"Please find enclosed one dollar for FARMING, due last January. I think I will do without your valuable paper, though every dollar seems spoken for before it comes."

\* All of the above are average market values in Eastern Ontario at present, and the productive farm values are given from actual tested data, as fixed by labor and capital costs at the present time.



# The Ontario Agricultural Gazette

The Official Bulletin of the Dominion Cattle, Sheep, and Swine Breeders' Associations, 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 20,000 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 Cattle Breeders' Association, to advertise sheep he must be a member of the Dominion Sheep Breeders' Association, and to advertise swine he must be a member of the Dominion Swine 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 15th 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. The data will be published in the most condensed form.

F. W. HODSON, Secretary,  
Parliament Buildings Toronto, Ont.

### LIVE STOCK FOR MANITOBA.

A carload of thoroughbred live stock last week left Ontario for Manitoba, the North west, and British Columbia. The car was consigned from Guelph to Portage la Prairie. The carload was completed at the following places: North Toronto, Myrtle and Smith's Falls. Six Oxford sheep were shipped by Mr. Henry Arkell, Arkell, to Alex. Wood, of Souris, Man. These sheep will be exhibited at the Winnipeg Fair. Two Shorthorn heifers were shipped by Mr. James Rusell, Richmond Hill, to Mr. Wm. King, Minnokin, Man.; two cows and two heifers were shipped by Mr. Arthur Johnston, Greenwood, Ont., to Mr. W. S. Lister, Bird's Hill, Man.; a Shorthorn heifer was shipped by the Hon. John Dryden to the Hon. Thomas Greenway, Winnipeg, and a cow and calf from Jas. I. Davidson, Balsam, to F. W. Brown, Portage la Prairie; Messrs. W. H. & C. H. McNish, Lyn, shipped to G. Bradley-Dyne, Sydney, B. C., a Guernsey cow and calf. This is the last car that will be shipped until next fall.

This prize will be one of their No. 2 grinders complete. In the bacon classes \$25 each has been donated by the Wm. Davies Packing Co., Toronto; F. W. Fearman, Hamilton; and the Ingersoll Packing Co., Ingersoll.

### Farmers' Institute Department.

Reports concerning the work of the Farmers' Institutes in Ontario will be published weekly under this head; also papers prepared for this department by Institute workers, Secretaries and officers having announcements to make are invited to send full particulars to the Superintendent.

### FORESTRY IN RELATION TO THE FARM AND CROP.

By JOHN J. BOUTLIER.

In spite of all that has been said and written regarding the excessive clearing of our country, and the benefits resulting from having a just portion of our land wooded, the work of destruction still goes on, leaving many of our farms unsheltered and with scarcely a tree left either for use or ornament. From concession to concession in many places we have an unobstructed view, and the cold of winter is intensified by the keen piercing winds that sweep across the plains, banking the snow into impassable drifts, and robbing the land of its fertility by the removal of the surface soil. Our streams in many districts have so diminished in volume that grist mills have had to cease grinding for want of water. May not also the lack of rain and moisture, which have been so disastrous of late years to our crops, be traced to the same cause? We are told that "Evil is often wrought for want of thought." Let us hope that in the present instance such may have been the case, and that in the future something practical may be done to preserve from destruction what is still left. Let us treat our wood-lots as we should our young orchards, from which cattle and sheep should be rigidly excluded, with barbed fence wire (and cross wires for sheep) stretched from tree to tree. It is comparatively easy and cheap to

fence a block which is still mulched by the forest leaf. Into this lot so fenced other varieties may be planted, especially the nut-bearing trees, and others of use in manufacturing. Then let us use judgment in cutting. Let the aged and decaying trees give place to the young growth. From the stumps of these old trees, if there are no cattle to destroy them, will often spring up sprouts to replace the old trees.

Many of our forest trees may be propagated by cuttings. Among these are the bass-wood, of value in so many ways, the poplar, and the Russian mulberry. The black walnut and the American sweet chestnut, with which I am now experimenting, may in time be included in the list of native forest trees if planted. There is a constant and increasing demand for wood used in manufacturing, and the supply is decreasing. For the manufacture of cheese boxes, apple barrels, and carriages, there will always be a demand which we could supply if our wood-lots were valued and cared for as they should be; and then how important the shelter afforded, especially to the north and west! How often do wood belts save a crop of wheat or clover! How pleasant in the winter time is the transition from a bleak exposed roadway to one bounded by a belt of wood land! A few years ago the Manitoba maple was unknown in this part of the province, but to day the streets of Belleville are adorned with the mature trees loaded with seeds and inviting you as you drive along to gather and sow them in your wood-lots. These trees I understand were grown from seed. But the proper place for trees is not along our cultivated fields, for their shade is often pernicious to vegetable growth, but in the wood-lot, on the lawn, around our springs, adorning our church and cemetery grounds, around our milk stands, and in the milking yard, are the proper places for trees, and the evergreen sheltering our orchards to the north and west. Our government is wisely legislating in behalf of the forest. We have now an Arbor Day, but tree-planting on that day should not be circumscribed by the school lot; all should observe it, and, along our road-sides and wherever a tree might prove useful or beautiful, let the good work be done. Object lessons and charts in relation to trees, their uses and propagation should find a place on our school-house walls. Our river banks and other public property should be left wooded and carefully preserved. How often has the presence of trees in the scenery of a country fired the poetic imagination as in the lines:

"How dear to my heart are the scenes of my childhood  
When forlorn reflection recalls them to view,  
The orchard, the meadow, the deep-angled wild-wood,  
And all the loved spots that my fancy knew."

and the destruction of the same called forth a protest in poetic language:

"Oh woodman, spare that tree,  
Touch not a single bough;  
In youth it sheltered me,  
So I'll protect it now."

Let us therefore value and spare the wood land, not only for its utility but also for its beauty and the intimate relation it bears to our farms and crops.

### SOME OF OUR NEWER WEEDS.

By T. C. WHITELY.

There can be no question but that the presence of weeds is a great yearly source of loss both to the individual farmer and to the province at large. It has been estimated, and I think the estimate is well within bounds, that Ontario's loss from this cause is not less than ten million dollars annually. Now, this loss is largely preventable. There is too great a disposition to look upon weeds as a necessary evil, and too little of a disposition to grapple strenuously with the question of attempting to get rid of them. There are numerous examples of clean farms in the country, but is there not too much of a disposition to let the weeds have their own way, and then blame Providence for the poor crops we reap in consequence? It would not be so necessary to speak upon a subject like this in a Farmers' Institute meeting were we not all convinced that the weed nuisance is on the increase, and especially that new weeds, many of them worse ones than those we have had heretofore to contend with, are being from time to time introduced. There is a need of an awakening of public opinion and public action upon this question. True, we have upon our statute book a law against the spread of "noxious weeds," but it is almost a dead letter, and, indeed, the law is behind the times in one respect, for weeds there enumerated are not now our worst ones. Others have come in since that Act was passed which outstrip those in power for mischief. In the states west of the Mississippi there are laws against the introduction of the Canadian thistle, and I am told that these laws are so well enforced that scarcely a specimen of that weed can be seen. What loss it would have saved us if that had been the case here!

The history of agriculture from its commencement in this country has been one of the continual introduction of weeds. Very few plants among the host now enumerated as weeds were natives of this province. Even the Canada thistle, though it possesses that name, is a European weed, introduced probably by the soldiery during the wars of the last century, and getting a foothold about Lake Champlain, spread into Lower Canada and thence into the New England States, where the Yankees gave it the name of the "Canada thistle." The fire-weed, golden-rod, smart weed, beggar's ticks, sheep sorrel, milk weed, maple-leaved goose-foot, with a few others, perhaps a dozen or twenty, all now considered perfectly harmless, were the only ones our first settlers had to contend with. Even such familiar weeds as the lamb's quarter and dandelion are introduced weeds.

(Continued in next issue.)

**WINNIPEG'S GREAT FAIR.**

From information recently received Manitoba's great exhibition, to be held at Winnipeg from July 11th to the 16th, promises to eclipse all previous exhibitions in the great Northwest. A splendid programme of special attractions is being prepared, to close with a presentation of that great fireworks spectacle, the "Relief of Lucknow." \$15,000 will be offered in cash prizes, besides a large number of special prizes. It is expected that the band of the 48th Highlanders will play at the exhibition. The buildings have been improved, and everything is up-to-date. As a proof of the growing popularity of this exhibition it is only necessary to point out that in 1891 the total attendance was only 8,000, while in 1897 it had increased to 60,000. This exhibition affords a splendid opportunity to Eastern people to see the products of the West in their most attractive form. Those who can make the trip should not miss this opportunity.

**CANADA'S GREAT FAIR.**

Exhibition time is rapidly approaching. As usual in this part of the country the season will open out with Canada's Great Exposition and Industrial Fair at Toronto, which will be held from August 29th to September 10th. The prize lists, got up in brilliant red colors with bold gilt lettering, are now being issued and can be had by addressing the secretary-manager, Mr. H. J. Hill, 82 King street east, Toronto. Although it was thought the Queen's Jubilee year would be the banner year, it is apparent that the management propose to make the exhibition of 1898 greater than all others, for no less than \$35,000 is offered in premiums, of which \$25,000, including \$5,000 for trials of speed, is to be devoted to the live stock, dairy products and ladies' work departments, a sum greater by \$3,000 than is given in Illinois, \$7,000 greater than at St. Louis, Mo., a city half as large again as Toronto, \$8,000 more than by the empire state of New York, \$12,000 more than by the great cattle state of Texas, \$12,000 more than by the state of Ohio and \$14,000 more than by New Jersey. These are big and imposing figures that tell plainly than words the excellent management that characterizes the Toronto Exhibition, and the admirable foresight that is used in giving the utmost encouragement to the farming community of the country. Toronto gives more than any state in premiums for every branch of live stock, dairy products and ladies' work. While Toronto gives close upon \$1,200 for dairy products, Illinois gives but \$264, Missouri \$223 and Ohio only \$46. The same comparison will hold good as regards horses, cattle, sheep and swine. There can, therefore, be no question that Canada's great fair is not only well named but deserves well of the entire farming and breeding community of the country. Entries, it might be mentioned, close with the secretary-manager as follows:

For live stock, dairy products, ladies' work, fine arts, honey, and all classes of manufactures, Saturday, August 6th.

For grain, field roots, and horticultural products, Saturday, August 13th.

For poultry, Saturday, August 20th.

For dogs, Thursday, August 25th.

**CANADA CENTRAL FAIR.**

Some exhibition associations in Canada charge the exhibitor for the space he occupies. The Central Canada Exhibition Association of Ottawa is not one of these. All space is free. Moreover, manufacturers showing their machines are supplied with motive power gratis, while feed is supplied on the grounds to exhibitors of stock at current market prices. Straw for bedding is supplied by the Association free. The very best accommodation will be afforded all exhibitors this year. The buildings found small last season are being enlarged. Of course the big change will be the new long, one-storey, fire-proof main building, but the additions and changes in the other buildings are none the less great and calculated to please both exhibitor and visitor. It is the same with the prize list; more classes, increased values and additional specials. The directors believe in encouraging the men who spend so much time in raising good stock. All classes are to be found in the prize list. The directors of Ottawa's great show should be repaid for their efforts by the greatest attendance of stockmen in the history of the fair.

**INGLESIDE HEREFORDS.**

We have just received an elegantly gotten up and carefully compiled catalogue of the well-known Ingleside herd of Hereford cattle owned by Mr. H. D. Smith, of Compton, Que. This pamphlet, which is really more than an ordinary catalogue, not only gives detailed information regarding this celebrated herd, but also valuable matter as to the merits of Herefords generally. As a proof that animals of the beef type only should be used for beef production, an address by Director F. C. Curtis, of the State Agricultural College, Iowa, on "The Fundamental Points of Practical Excellence in Beef Cattle" is given, and which was published in FARMING for June, 1897.

The information regarding the Ingleside herd is given briefly and to the point. This herd comprises daughters and granddaughters of such noted sires as Ancient Briton, Anxiety, Anxiety 3rd, Anxiety 4th, Bourton, Bredwading, Cassin, Corrector, Harrington, Kodac of Rockland, Launcelot, Lord Wilton, Rupert, Silurian, Sir Horace, The Grove 3rd, Lushingham, and Viscount Wilton. Among the noted cows of this herd may be mentioned Pink 4th 22398, calved February 5th, 1897; Lady Lushingham 3rd, calved March 10th, 1890; Spot 3rd 48222, calved September 14th, 1890; Je sie of Ingleside 63622, calved October 3rd, 1894; Sylvan 3rd of Ingleside 58495, calved March 26th, 1894; Sylvan 2nd of Ingleside 58494, calved February 3rd, 1894.

At the head of the herd at present are the "Corrector" bull, Sir Horace, and the "Eureka" bull, Mark Hanna. Sir Horace 63688 was calved April 4th, 1895. His sire was Corrector 48976 and his dam, Princess Jenny 22579. Mark Hanna 74230, though not two years old, is a remarkably heavy bull. He was calved October 10th, 1896, and when only fifteen months old weighed 1260 lbs. His sire was Eureka 58549, and his dam, Miss Laik 30995.

The catalogue contains full pedigrees of thirty-seven animals all belonging to the Ingleside Herefords. In it are also several illustrations of some of the typical animals of Mr. Smith's herd. Taken altogether the pamphlet is one of the most complete of its kind we have received for some time, and reflects great credit upon the proprietor of Ingleside Stock Farms.

**Publishers' Desk.**

**The Joliette Grinder.**—Read the advertisement of S. Vessot & Co., of Joliette, Que. A postal card addressed to the firm will elicit full information regarding this excellent machine.

**Used Four Bottles With Satisfaction.**—Toronto, Jeff. Co., O., May 3, 1894.—The Lawrence-Williams Company, Cleveland, O.: My horses have been sick this winter and I have used four bottles of Gombault's Rustic Balsam with the greatest satisfaction. They swell under the belly and on chest and throat, and every time I rub them with the Caustic Balsam it would swell and water would drop from the same, and I believe my horses would have died had it not been for that medicine.—DANIEL COLLINS.

**Stock Notes.**

MR. R. F. WHITE, of Peith, Ont., writes: "Owing to an abundant supply of good pasture our cattle are thriving nicely. The young Shorthorn bull, Bar n Gordon is going right ahead, and should be an extra good one for next spring's trade. His dam, Lily Stomper, purchased from A. Johnston, Greenock, Rockton, Ont., to the Drummond Brothers, is right stamp for beef—easy to feed and early to mature. She is due to calve again shortly to Indian Ranger, a sire of old Indian Chief. In Ayrshires we have sold our stock bull, Grand Duke, bred by James McCorkrick, Rockton, Ont., to the Drummond Brothers Society. The seventeen-month-old bull, Prince James, to Matthew Donald, McDonald's Corners, Ont. This bull was sired by Grand Duke, and from the same sire, bred by E. Robertson, formerly of Compton, Que. To W. J. Kirkham, Brock, Ont., went the grandly-bred young bull, Sultan of the Willows. His sire, Jerry, is from (Imp.) Libby, a prize-winner at Montreal and other shows. The dam of Sultan is (Imp.) Yellow Bee, bred by the well-known Ayrshire breeder and judge, Mr. John Caldwell, Hogside, Dundonald, Scotland. To head our herd we have purchased from Dawes & Co., Lachine, a very fine young bull, Rake of the Willows. His dam, Craigie Burnside, bred by E. Robertson, formerly of Compton, Que. To W. J. Kirkham, Brock, Ont., went the grandly-bred young bull, Sultan of the Willows. His sire, Jerry, is from (Imp.) Rosewood of Nethercrag, was one of the best and has given a cow of the same name to the Drummond Brothers. So I think Wm. Hunter-Fulton, Ayrshire, Scotland. So I think by this young bull, and from such cows as Brownie of Burnside, Mary of Burnside, and Lady Albion, by Albion Chief, and Red Rose, we should have some extra fine young stock."

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Our Patent Safe-Lock Shingles are cheap, easily laid, handsome in appearance, and practically indestructible.



Patent Safe-Lock Shingle.

They are absolutely weather-proof, fire-proof, lightning-proof, and will last a lifetime. Perfect satisfaction guaranteed.

Samples and Price List Free on Application.

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**Woodstock Steel Windmills**

FOR POWER AND PUMPING



Get a **DANDY**

WITH GRAPHITE BEARINGS They Run without Oil.

Steel Towers, Pumps, Tanks, Saw Tables and Watering Troughs, etc.

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The best, most complete and attractive Agricultural and Live Stock newspaper. Enlarged to 36 pages weekly; frequent special issues 40 to 48 pages. Illustrations are a speciality, each number containing many of the leading prize-winners, etc. Brilliant and practical articles on the Farm, Dairy, Horses, Cattle, Sheep, Pigs, Poultry, Veterinary, etc.

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Intending purchasers of British Purebred Stock should send us particulars of their requirements, large shipments and extensive connections having given our staff of expert buyers that experience which is indispensable in live-stock transactions.

Enquiries welcomed. Address—

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a neatly printed, sixteen-page semi-monthly, and the only exclusively agricultural paper in that part of the Dominion. Write to the publishers for sample copy and adv. rates. Address  
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(NON-POISONOUS)  
**SHEEP DIP AND CATTLE WASH**

**The Original Non-Poisonous Fluid Dip.**  
Still the Favorite Dip, as proved by the testimony of our Minister of Agriculture and other large Breeders.

**FOR SHEEP**  
Kills Ticks, Maggots; Cures Scabs, Heals Old Sores, Wounds, etc., and greatly increases and improves growth of Wool.

**CATTLE, HORSES, PIGS, Etc.**  
Cleanses the skin from all insects, and makes the coat beautifully soft and glossy.

Prevents the attack of Warble Fly.  
Heals Saddle Galls, Sore Shoulders, Ulcers etc. Keeps Animals Free from Infection

**No Danger, Safe, Cheap, and Effective.**  
**BEWARE OF IMITATIONS.**

Sold in large tins at 75 Cents. Sufficient in each to make from 25 to 40 gallons of wash, according to strength required. Special terms to Breeders, Ranchmen, and others requiring large quantities.  
Sold by all Druggists. Send for Pamphlet.  
**ROBERT WINTHAM, Druggist, Owen Sound,**  
Sole Agent for the Dominion.

Ask for **Eddy's** when you order matches. Then you will be sure of having the best.

**BUY**  
**Coleman's Salt**  
THE BEST  
**For Dairy or Table Use**  
IT IS UNEQUALED.  
**Salt on the Farm**  
for wire worm, joint worm, army worm and all insects that destroy crops. Salt is the best insecticide. It is also a fertilizer.  
**TRY IT.**  
**R. & J. Ransford**  
CLINTON, ONT

**MARKET REVIEW AND FORECAST.**

Office of FARMING,

44 and 46 Richmond street W., Toronto.  
July 4th, 1898.

General Canadian trade continues good for this season of the year. There is always a lull in trade matters during the holiday season. All lines of trade are in a state of expectancy regarding the harvest. Throughout Canada prospects are good and a big yield is likely to result. In some sections of the United States, where the wheat harvest is already on, there is considerable disappointment regarding the yield, though it is expected that the crop throughout will equal if not surpass last year's. The effects of the Leiter smash are still lingering in the many lines of trade.

**Wheat.**

The wheat market is beginning to show signs of recovery from the recent collapse. During the week there was a decided advance in the price of wheat futures in Chicago. This was due to unfavorable reports of the crops. As the harvest advances it becomes more clear that the United States wheat crop is not going to be anything like a record breaker. The influence of rust and other adverse conditions during June appear to be very serious in many localities. The indications now are that this year's crop in the United States is not likely to exceed the production of 1891 when the total yield was 675,000,000 bushels. Prospects, however, for a big Canadian wheat crop continue bright. Manitobans are confident that the west will this year give its greatest yield of wheat.

Cable reports show a better feeling in Britain though prices have fluctuated much during the week, owing to crop reports. Stocks in London are reduced, and holders are beginning to think that bottom has been reached. Some Canadian wheat sold during the week showed an advance of 61. The loss, however, realized by English dealers in the Leiter collapse is enormous, and must largely affect the present trade. Holders at the time of the boom were asking 50s. for wheat that now has to be sacrificed at 37s. It is estimated that the total losses on wheat and flour in the United Kingdom will be upwards of £2,000,000. The local market has been dull and easy during the week, with not much doing; 77c. and 78c. have been the ruling figures for red winter, west. No. 1 Manitoba is steady at \$1.02, Toronto and the west.

**Oats and Barley.**

The oat market shows an easier feeling. A London cable report of June 30th shows a decline of 6d to 9d. per quarter, and holders are more anxious to realize. Though receipts are decreasing at Montreal, the market is dull and easier, with quotations from 30c. to 31c. afloat. Oats here are dull and easier at 25c. west.

Very little doing in barley, and prices are nominal.

**Peas and Corn.**

The London market for peas shows little or no change during the week, and stocks are generally light. The Montreal market is weak and lower. Prices for all coarse grains were advanced when wheat was booming, and, consequently, have suffered with the latter. At Montreal on May 12th peas were quoted at 70c. and 71c., and now quotations are from 57c. to 57c. At Toronto the market is dull and easy at 48c. north and west.

Receipts of corn at Montreal show large increases during the week, and the market is quiet at 36c. to 37c. for No. 2 Chicago mixed afloat. Canadian yellow west is quoted here at 32c. to 33c. and American at 40c. Toronto.

**Bran and Shorts.**

Shorts here are scarce and firm at \$13 and \$14 for cars west. Bran is dull and easy at \$9 west. At Montreal bran is easier at \$12 in bulk. Shorts are steady at \$13 and \$14.

**Eggs and Poultry.**

The London cable shows an easier market there and at Liverpool for eggs owing to large arrivals from Ireland, causing a decline of 3d. per long hundred, 120. The Montreal market is firm under light receipts, which show the effect of the heat. As a rule, from 9 to 12 eggs per case are had. Prices for fancy candied stock are from 10c. to 10c., and fancy, selected, suitable for export and weighing 15 lbs per long hundred, sell as high as 11c. The ordinary run of supplies only being from 9c. to 9c. and culls from 8c. to

8c. Choice, fresh, candled eggs sell here from 10c. to 11c.

Poultry here is dull at 9c. to 10c. for turkeys, 60c. for ducks, and 40c. to 60c. for chickens.

**Potatoes**

Are dull, and considerably lower than last week. The quotations for cars on track are nominal at 25c. to 30c. per bag. Potatoes are selling out of stores at 40c. per bag.

**Hay and Straw.**

The market here for baled hay is dull. Cars on track are quoted at \$8 to \$8.50. Cars of baled straw sell for \$4 to \$4.50. A Montreal car of choice No. 1 bring \$11, while cars of inspected No. 1 bring only \$8 to \$8.50. The prospects are good for an abundant crop.

**Fruits.**

Reports from the Niagara district are not so favorable for a big peach crop. The strawberry season is about over. It has been one of the biggest crops of the season. Last week they brought from 2 1/2c. to 3 1/2c. per quart wholesale. This week the raspberry season will be on. The cherry crop is somewhat small this year. Prices at Montreal have ranged from 50c. to \$1.25 during the week, and bring from 30c. to 75c. per basket here.

**Wool.**

The wool market continues dull and unsatisfactory. Dealers here are not disposed to pay the prices asked at country points. Country dealers are asking 17c. and 18c. for washed wools and 16c. is all dealers here will pay. Unwashed wool brings 10c and 10 1/2c.

**Cheese.**

The cheese market is in a very unsettled condition. Dealers are undecided what to do. Supplies are increasing fast, though so far the total make this season is not equal to that of last year for the same period. The total exports this season up to June 25th were 254,957 boxes, as compared with 374,492 boxes, showing a decrease of 119,535 boxes. The shipments from New York for the same period show a decrease of 75,192 boxes. Many are inclined to speculate on this shortage; but the English make so far is exceptionally large, and besides there is considerable old stock on hand. Finest Canadian cheese is quoted in London at 37s. 6d. to 38s. 6d. The great bulk of Western goods that went forward last week cost on board ship from 8 1/2c. to 8 3/4c., or equal to about 41s. to 42s. 6d. c.i.f. Liverpool. So there is likely to be a serious loss somewhere. Some holders of this stock are putting it into cold storage with the expectation of getting their money back later on. It now seems quite clear that the rise of last week was largely speculative. At the local markets last week factorymen were inclined to hold. Prices ruled from 7 1/2c. to 7c. Montreal quotations are 7c. to 8c. for finest Western and 7 1/2c. to 7c. for finest Eastern. A number of cable orders are coming forward, but the limits are too low to do business at prices on this side.

**Butter.**

The British market last week was not quite so favorable, and a somewhat easier feeling prevails. Shipments from this side are increasing. Up to June 25th the total this year shows an increase of 18,800 packages over the same period last season. The shipments from New York, however, for the same period show a decrease of over 50 per cent. as compared with last year. The Montreal market is easier, and creamery butter brought 16 1/2c. to 17c. last week, which would have brought 17 1/2c. to 17 1/2c. the week previous. Some choice lots brought from 17c. to 17 1/2c., while good to fine lots sold for 16c. to 16 1/2c. Quite a lot of creamery butter has gone into cold storage. Western dairy is selling at 13 1/2c. to 13 3/4c. Several lots of American creamery have arrived at Montreal, costing from 16c. to 16 1/2c. laid down there. The Elgin, Ill., market ruled at 16c. last week. The market for creamery butter here is reported steady at 17c. to 18c. for prints and 16c. to 17c. for tubs. The best dairy sells at 13c.; less choice lots are quoted at 11c. to 11 1/2c.

**Cattle.**

There is very little change in the cattle situation. Prices for really choice stuff ruled higher during the week at the larger of United States markets, though they were easier for secondary grades. The supply of really choice stuff has been tight. All stocks were light here during the week, owing to the holiday.

The same thing over and over again. Read what the AMERICAN has done this time.

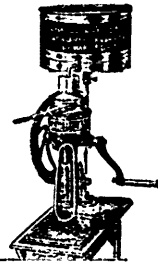
**WILL PAY ITSELF IN 4 MONTHS**

BATHESWOOD, ONT., JUNR 8TH, 1898.  
MRSRS. RICHARDSON & WEBSTER,  
St. Mary's, Ont.

DEAR SIRS,—Enclosed find settlement for the Separator and oil received from you on May 28th. I placed the Separator on trial with Mr. S. D. Wilkinson, Leamington, and after 4 days he bought it. He is perfectly satisfied. I have tested the skim milk several times for him and it has never shown more than a trace of butter fat. I consider it a perfect machine in every respect and would like to act as your agent in this part of the county. Mr. Wilkinson is one of the most prominent dairymen around here. He says he will save enough in butter to pay for the Separator in 4 months. Yours truly, (Signed) F. A. LRAK.

Write RICHARDSON & WEBSTER, St. Mary's, Ont., for Catalogue and Prices. It will pay you to have a Separator as well as others.

W. G. GLENN, Agent for Owen Sound and vicinity  
**ST. MARY'S, ONT.**



**RICHARDSON & WEBSTER.**

**Export Cattle.**—London cable reports a firmer feeling and an advance of 3d. per stone. The demand here was steady, but offerings are light. Prices ruled from \$4.50 to \$4.75 per cwt. Bulls sell from \$3.40 to \$3.50 per cwt., according to quality.

**Butchers' Cattle.**—The prices for stall-fed are from \$4 to \$4.50 per cwt., with light offerings of choice stuff. Common cattle bring from \$3.25 to \$3.75 per cwt.

**Stocks and Feeders.**—Light stockers are quoted at \$3.40 to \$4, and feeders from \$3.75 to \$4 per cwt.

**Calfs** rule from \$3 to \$6 each, with extra choice veal selling from \$7 to \$8.

**Milch cows and springers.**—The offerings are light and the market firm. From \$25 to \$40 are the ruling figures. Fancy new calved cows bring \$45 per head.

**Sheep and Lambs.**

The London cable reports large supplies and prices in consequence 2d. per stone lower. Reports from American markets report a stronger feeling for desirable quality. Good yearlings bring good prices at Buffalo. They are from \$5.50 to \$5.65 for fancy. The market here does not show much change. Spring lambs bring from \$2.50 to \$4 each, and sheep from \$3 to \$3.25 per cwt.

**Hogs.**

As we point out elsewhere the hog market is overdone with small and secondary stuff,

**Windmills.**

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- NO FUEL
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EASIEST AND BEST  
Ask your dealer for it, or send direct to the manufacturer,  
**WILSON BROS.**  
COLLINGWOOD, ONT.

and also too much very soft quantity, owing to the feeding of corn and clover. Unless some change occurs in this line very soon it means disaster to our export bacon trade. Only real choice bacon hogs are wanted. Choice selected here being from \$5.20 to \$5.37 1/2 off ca... Thick and light fat hogs bring \$4.75 and sows from \$3 to \$3.40.

**Horses.**

The London cable reports show a firmer market with a good demand for heavy draught and light driving horses. The receipts of Canadian animals are more liberal.

**CENTRAL CANADA EXHIBITION**

OTTAWA, ONT.,

September 16th to 24th, 1898.

Entries Close Tuesday, Sept. 13th.

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Special Prizes for Milk Test.  
32 Gold Medals as Sweepstake Prizes for Horses and Cattle.

New Main Building, 310 feet long, constructed of iron, Agricultural Improvement Hall and Poultry Building enlarged. New Dining Halls. All buildings reconstructed and enlarged.

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**Farmers' Binder Twine and Agricultural Implement Manufacturing Co., Limited.**  
(BRANTFORD, ONTARIO).

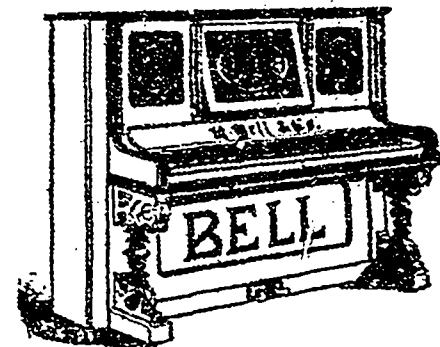
WE think it necessary to immediately advise you to refute the treacherous and damnable reports that are being put out and circulated against this co-operative movement of farmers by our enemies. Some are stating that this mill is closed down, others that we are pleading with the Government to reinstate the duty on binder twine; others that raw material has so tremendously advanced, that the present moment is the correct time to buy twine requirements for the harvest of 1898; while still others are claiming that the great American combine must absorb this enterprise, as it will be impossible for us to manufacture twine on a free trade basis. We have simply to say, in answer to all these diabolical statements, that there is not a single word of truth in them; the mill is being run three hundred days in the year to its utmost capacity; we have requested the Government not to reinstate the duty on twine; and we are just now manufacturing a quality of pure Manila 650 feet long, known as our Sampson brand. It and our splendid Red Star (the farmer's pride) are superior to anything that has ever yet been placed on the Canadian market. As in the past, we will again shortly set prices on binder twine for the coming harvest at a fraction above actual cost of production, that all other manufacturers and dealers will have to follow. All we now ask, after five years of honest and determined endeavor in the interest of agriculturists of Canada to hold this Company as an independent concern, is that they, the farmers, give us their continued loyal support. Order our twine early from our appointed agents, listen to no statements made by the enemy, and remain truly loyal in not purchasing one single pound of American or other twine in opposition to us until they inform themselves positively that every ball of this Company's twine is exhausted. Small samples and prices will be sent you in the near future, or can be had on application.



See copy of a letter enclosed that appeared in *The Farmers Weekly Sun*, February 24th, for your careful perusal. We specially request you, as an intelligent man, to plead with your people to realize the importance of this company getting their undivided individual support instantly, and to understand what our being driven from existence through indifference or scepticism on their part would mean to them in the future. The Salt Act would simply be repeated a hundredfold.

Faithfully yours,  
**JOSEPH STRATFORD.**

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**The BELL PIANOS and ORGANS . . .**

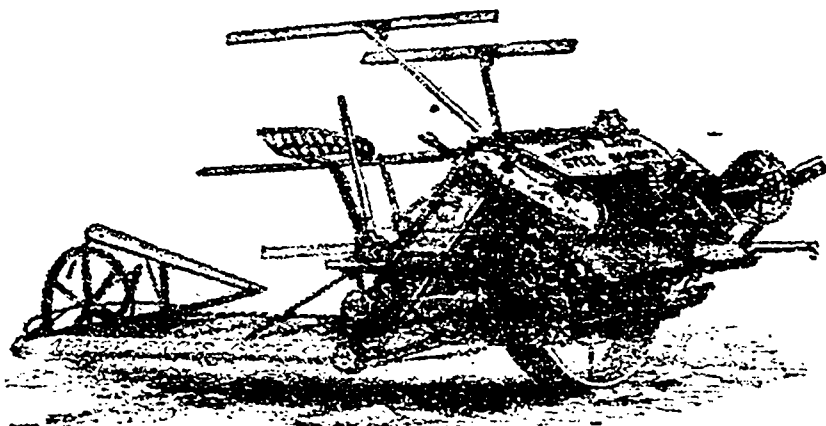
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ORGANS from \$40 upwards  
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Only the best materials used. All others are rejected.  
On Reasonable Terms from all Agents  
Manufactories: GUELPH, Ont.

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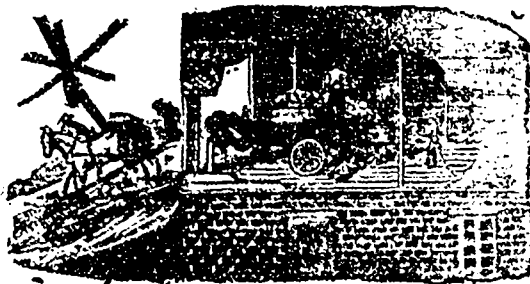
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INGERSOLL, ONTARIO.

**Full Circle Steel**



This Hay Press as At Lloyds. One customer informs us that he pressed hay with his machine on a barn floor ten ft. higher than the ground outside and had the power and horses working it on the flat ground outside. It worked under these conditions with first class satisfaction. There is no

other press that could work under these conditions.

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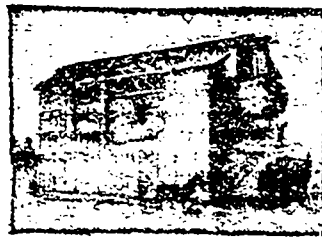
**MATTHEW MOODY & SONS,**

Send for Catalogue.

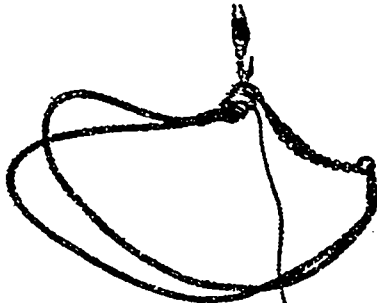
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For unloading hay and all kinds of loose grain.



Unloads on either side of barn floor without changing car. No climbing necessary. Malleable Iron Cars. Steel Forks. Knot Passing Pulleys. Will work on stacks as well as in barns. Satisfaction guaranteed.



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Works in connection with Pitching Machine, and is the most complete apparatus ever offered to the public for pitching sheaves. Sheaves left in the mow just as they come from the loaf.

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**ARE THE BEST AND CHEAPEST**

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Charlottetown, P.E.I.



**Harvie's "Arctic" Butter Shipping Box**

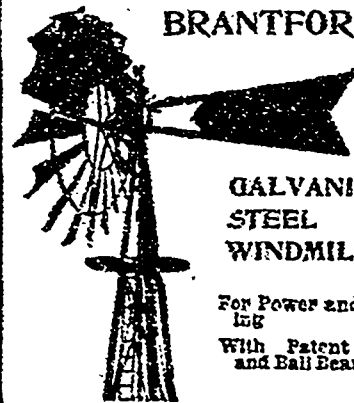
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