

Technical and Bibliographic Notes / Notes techniques et bibliographiques

The Institute has attempted to obtain the best original copy available for filming. Features of this copy which may be bibliographically unique, which may alter any of the images in the reproduction, or which may significantly change the usual method of filming, are checked below.

☒ Coloured covers/
Couverture de couleur

☐ Covers damaged/
Couverture endommagée

☐ Covers restored and/or laminated/
Couverture restaurée et/ou pelliculée

☐ Cover title missing/
Le titre de couverture manque

☐ Coloured maps/
Cartes géographiques en couleur

☐ Coloured ink (i.e. other than blue or black)/
Encre de couleur (i.e. autre que bleue ou noire)

☐ Coloured plates and/or illustrations/
Planches et/ou illustrations en couleur

☒ Bound with other material/
Relié avec d'autres documents

☒ Tight binding may cause shadows or distortion
along interior margin/
La reliure serrée peut causer de l'ombre ou de la
distorsion le long de la marge intérieure

☐ Blank leaves added during restoration may appear
within the text. Whenever possible, these have
been omitted from filming/
Il se peut que certaines pages blanches ajoutées
lors d'une restauration apparaissent dans le texte,
mais, lorsque cela était possible, ces pages n'ont
pas été filmées.

☐ Additional comments:/
Commentaires supplémentaires:

L'Institut a microfilmé le meilleur exemplaire qu'il
lui a été possible de se procurer. Les détails de cet
exemplaire qui sont peut-être uniques du point de vue
bibliographique, qui peuvent modifier une image
reproduite, ou qui peuvent exiger une modification
dans la méthode normale de filmage sont indiqués
ci-dessous.

☐ Coloured pages/
Pages de couleur

☐ Pages damaged/
Pages endommagées

☐ Pages restored and/or laminated/
Pages restaurées et/ou pelliculées

☒ Pages discoloured, stained or foxed/
Pages décolorées, tachetées ou piquées

☐ Pages detached/
Pages détachées

☒ Showthrough/
Transparence

☒ Quality of print varies/
Qualité inégale de l'impression

☒ Continuous pagination/
Pagination continue

☐ Includes index(es)/
Comprend un (des) index

Title on header taken from:/
Le titre de l'en-tête provient:

☐ Title page of issue/
Page de titre de la livraison

☒ Caption of issue/
Titre de départ de la livraison

☐ Masthead/
Générique (périodiques) de la livraison

This item is filmed at the reduction ratio checked below/
Ce document est filmé au taux de réduction indiqué ci-dessous.

10X	14X	18X	22X	26X	30X
☐	☐	☐	☐	☐	☒
12X	16X	20X	24X	28X	32X

Farming

A Paper for
Farmers and Stockmen

WEST'S FLUID is a positive preventive of CONTAGIOUS ABORTION AND HOG CHOLERA

and a most effective DISINFECTANT, simply because it is a strong ANTISEPTIC, and destroys the germs upon which such conditions depend, and does not contain corrosive nor irritating properties.

Circulars (specially prepared by a veterinary surgeon) on application.

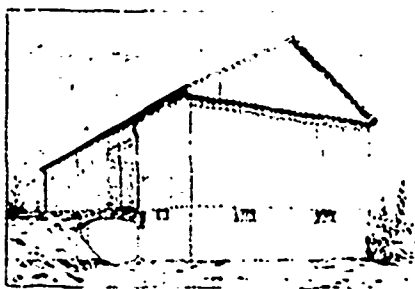
THE WEST CHEMICAL CO.,
TORONTO, ONT.

DEPT. F Agents wanted in all counties.
Headquarters for LINCOLN SHEEP DIP

THOROLD CEMENT

High in quality. Low in price. 38 years in business.

Basement of this barn was built with
Battle's Thorold Cement.



Do you intend renewing your stable floor this fall? If so, why not consider the question of putting in a Cement Floor? It is cool in summer, can always be kept clean with very little labor and without the soaking which is found so annoying and unhealthy for man or beast in connection with wood floors, is warm in winter, as cheap as a wood floor, and will last for all time. It is smooth but not slippery. Write for prices and full information to

ESTATE OF JOHN BATTLE
THOROLD, ONT.

Mention this paper.

Quick Cure For Lump Jaw

Not one case in a hundred that cannot be cured by one to three applications of

Fleming's LUMP JAW CURE



Trade Mark Reg'd.

Lump Jaw has heretofore baffled treatment. It has infected herds and pastures, and caused loss of hundreds of thousands of dollars. This new remedy cures quickly, thoroughly, and permanently. Leaves jaw smooth and sound. Easy to apply; costs but a trifle compared with results.

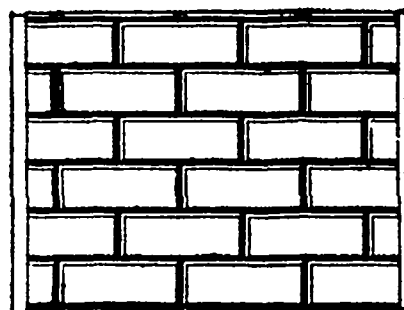
GUARANTEE.—Every package sold under positive guarantee; money back if it should ever fail to cure.

Sent everywhere by mail, Price, \$2.00.

FREE A valuable illustrated treatise on cure of Lump Jaw sent free to readers of this paper.

Address: **FLEMING BROS.**
Chemists, ST. GEORGE, ONTARIO

Have You Used Our Sheet Steel PRESSED BRICK?

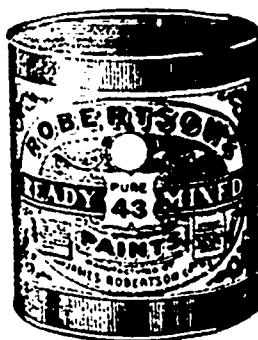


It is of special value for covering all kinds of farm buildings, because it is so durable, offering perfect protection from dampness and inclement weather—and yet costing very little.

It is fireproof, easy to apply, and gives a stylish effect that you'll appreciate.

—Better write us for full particulars.
Our experience is at your service.

METALLIC ROOFING CO., Limited,
1192 KING STREET WEST, TORONTO.



DON'T make a mistake
BUT ask your Dealer for
ROBERTSON'S
the Best
PAINTS in the Market

THE JAMES ROBERTSON CO. Limited
The Paint Makers..... TORONTO

Ayrshires

...GOLDFINDER, Imp...

—HEADS OUR AYRSHIRE HERD—

We have for sale: five choice young bulls fit for service, two by the noted stock bull "Matchless," also some good females of all ages. We have a few choice Clydesdales on hand. Correspondence solicited and Visitors Welcome.

R. NESS & SONS, Howick, Que.

CHOICE AYRSHIRES

Hickory Hill Stock Farm



Special Offer for March and April One Cow and Young Bulls from prize-winning sire and dams that have won milk tests, one with record of 62 lbs per day.

N. DYMENT, Clappison's Corners, C.N.

MAPLE CLIFF STOCK AND DAIRY FARM

STOCK FOR SALE

Ayrshires, Three young bulls fit for service and bull calves.
Berkshires, We are now booking orders for spring pigs. A few Tamworth bears from full litters.
Tamworths and
Poland Chins.

R. REID & CO.,

Hintonburg, Ont.

Farm one mile from Ottawa.

Street Cars to Farm.

Ayrshires and Yorkshires FOR SALE

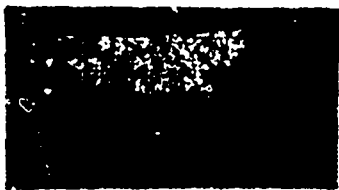
One choice yearling Ayrshire bull, fit for service, will be sold cheap to a quick buyer. Also a number of choice bull and heifer calves, sired by White Prince (imp.). Also Yorkshire pigs of the right bacon type. Prices low.

JOHN H. DOUGLAS,

WARKWORTH, ONTARIO

Elm Shade Farm

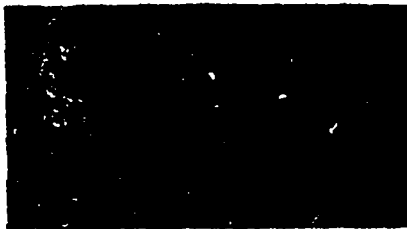
AYRSHIRE



CATTLE

The head of the herd is Lord Starling, a prize winner. The imported Cows, Blue Bell, White Glen, and Kate Wallace, belong to this herd. Won the 2nd herd prize at Montreal in 1897, against strong competition. Young stock of both sexes for sale bred from imported and prize-winning stock. WM. WYLIE, Howick, Que., or 245 Bleury St., Montreal.

Alva Farm GUERNSEYS



Awarded first prize at Montreal for BREKERS YOUNG HERD. Young animals of season for sale. Pedigrees and particulars to parties wishing to purchase. Address: SYDNEY FISHER, Howick, Que.

W. D. FLATT

HAMILTON P.O. and TELEGRAPH OFFICE



OFFERS FOR SALE

7 Imported Scotch Bull
16 Canadian Bred Bulls.
21 Two-year-old Imported Scotch Heifers.
8 Yearling

Also a number of Young Cows, including both Imported and Canadian bred served by Golden Fame (imp). Prices consistent with quality. Correspondence and inspection invited.

FOR SALE

Des Moines Incubator and Brooder
Bradley's Meat Meal
Cracked Bone and Bone Meal
The Ideal Egg Food
Lightning Lice Killer
Oyster Shells
Mica Crystal Grit
Bone Cutter
Grinding Mills
R. Cutter
Drinking Fountain
Leg Bands

Send three cents for illustrated catalogue. Poulter's Guide, 15c. per mail.

ROCROY FARM

24 St. Sulpice St., Montreal



ROCK SALT for horses and cattle, 100 lbs., 70c., 500 lbs., \$3.00, Toronto.
Cash with the order. Also in car lots.
Toronto Salt Works, TORONTO

I endeavor to give the best advice regarding

MINING INVESTMENTS

having exceptional representation in various centres.

E. Gartly Parker

Mining Broker and
Member of the Standard Mining
Exchange

12 Adelaide Street East, - TORONTO

'Phone 1842

I handle all mining stocks on commission, whether in B.C., Ontario or REPUBLIC.

Special Live Stock Number...

SEPT. 8th, 1899

ADS., to insure insertion, must be in not later than
SEPT. 1st

CO-OPERATIVE FARMER
SUSSEX, NEW BRUNSWICK

Agricultural College

The Ontario Agricultural College will reopen on September 26, 1899

Full courses of Lectures, with practical instruction in Agriculture, Live Stock, Dairying, Poultry, Beekeeping, Horticulture, Veterinary Science, Chemistry, Geology, Botany, Entomology, Bacteriology, English, Mathematics, Bookkeeping, and Political Economy.

Year shortened to suit farmers' sons.

Send for circular, giving terms of admission, course of study, etc.

JAMES MILLS, M.A., President,

QUELPH, ONTARIO

Dentonia Park Farm

EAST TORONTO
(Coleman P. O.)

W. E. H. Massey, Proprietor

Address DENTONIA PARK FARM, Coleman, Ont., Canada

Dentonia Jersey Herd

Two handsome young bulls for sale, fit for service; one out of imported stock and one a splendid type of the St. Lambert family. Prices and particulars on application.

Dentonia Poultry Yards

Poultry department in charge of Frank R. Webber, formerly of Guelph. Handsome Fens of White and Brown S.C. Leghorns, Barred P. Rocks, Black Javas, White Langshans, Pekin Ducks. Eggs in season, 15 for \$2, or 30 for \$3.50. Stock for sale. Also Embden Geese or Turkeys.

Dentonia Trout Ponds

This year's fry in fine healthy condition ready for delivery, also yearlings. Market Trout supplied to the trade.

FARMING

VOL. XVI.

AUGUST 22nd, 1899.

No. 51

Our Exhibition Number

Visitors to the Industrial Fair, Toronto, which opens on August 28, should not fail to call at "FARMING" Tent for a copy of our Exhibition Number. This number will appear on the first of September and will be replete with practical and useful information pertaining to the farmer's calling. One of its many special features will be Canadian food products, the markets for them and how to prepare such products so as to meet the requirements of these markets and obtain the largest amount of profit. The Farm Home Department will receive special attention and several specially prepared articles will appear dealing with matters connected with the farmer's home. Some very special matter of practical value to every stockman and farmer will appear in THE AGRICULTURAL GAZETTE, and the whole issue we are confident in stating will be equal to if not superior to any publication in the agricultural line ever produced in Canada.

The number will be profusely illustrated. Included in the illustrations will be views of the Smithfield and Covent Garden markets, London, Eng., and unloading cattle at the English docks, views of typical English, Irish and Danish creameries, and the leading farmer's markets in Canada. Some special live stock illustrations will also be shown as well as a large number showing scenes not usually reproduced in a farm journal, but, nevertheless, of interest and value to the agriculturist.

Remember that our tent at the Toronto Fair is in the northern portion of the grounds directly opposite the Farmers' Institute tent. A FARMING representative will be on hand to receive visitors and to give information regarding subscriptions, advertising, etc. But even if you have no business of this nature you will be welcomed at the tent. Do not leave the Fair grounds without securing a copy of our Exhibition number.

Our Farmers' Institutes

In August 8th issue and also in this one appear two letters containing some very practical and useful suggestions for Farmers' Institutes. These suggestions though somewhat local in their character should be of interest to every one connected with Farmers' Institute work in this Province. The Ontario Institute system is now well organized and in a general way in so far as the government and the superintendent are concerned we fail to see much room for improvement. And yet there is room for improvement; but as our correspondents very aptly point out the improvement must come from the farmers themselves. While the attendance at the meetings has largely increased and while the interest in each individual institute has also largely increased there seems to be something lacking in the way of supplementing the good work that the institutes are doing on the part of the local officers and members. No matter how effective a central organization may be it cannot take the place nor supply the interest and activity that should come from the local officers and members.

Mr. Munro, in his letter published in another column, intimates that a local constitution might be supplied institutes, under which debating schools and such purely local organizations might be formed. While it might be a greater incentive to more active work along this line on the part of

the officers and members if a special constitution of this kind were formed, still there is nothing in the general constitution or by laws governing the institutes at the present time that would prevent any local institute from forming debating schools, branch institutes, etc., to be run in connection with it. All that is necessary to bring this about is for some active secretary or officer to set the ball rolling and to get these local organizations in shape. Of course it would be a great help if a set of rules and regulations for governing these local societies were compiled as a guide; but the way to get such by-laws is to start a few societies, and when they are running a while it will be easier and more satisfactory to draft a set of rules and regulations to govern them.

But however this may be, the suggestions put forward by our correspondents are worthy of careful consideration, and we would like to see some of our enterprising institutes take up work along these lines during the coming winter. Do not wait for some central authority to do the work, but let every director constitute himself a committee to organize the work in his own district. It should not be difficult to form local branches in every district if a little energy is only displayed in the matter. These branch institutes could meet every two weeks or month, as may be desired, and would be the means of getting the young people of the neighborhood interested, and of bringing out the local talent. It would be a good plan to interest the farmers' wives and daughters in this movement. With their active co-operation any movement of this kind is sure to succeed. In the meantime we would be glad to hear from others interested in this work.

The Export Butter Trade

The Outlook Very Encouraging; Extra Large Shipments

One of the most encouraging branches of our export trade just now is that of creamery butter. The expansion which this trade has undergone so far this season is in many respects remarkable. From May 1st to August 12th the total exports of butter from Montreal amounted to 162,559 packages, as compared with 73,273 packages for the same period of 1898, an increase of 89,283 packages. But notwithstanding this large increase in shipments there has been the best export demand ever experienced in the history of our creamery butter trade. Already \$1,250,000 worth of butter has gone forward, and with the constantly increasing shipments it is not too much to expect that the creamery butter trade of 1899 will be nearly double the value of that of 1898.

One of the most encouraging features of this year's export business so far is that the demand is not confined to the four ports of London, Liverpool, Bristol, and Glasgow, as has been the case heretofore but shipments are now going forward direct to Birmingham, Cardiff, Manchester, and other inland points where they are being sold in competition with the Danish article. This shipping of the product to more centres will bring it before more people and make its good qualities known to a larger number of consumers. It is also gratifying to know that the butter is being sold on its merits and that its sale is not being bolstered up in any way. This is the surest way of establish-

ing a trade so long as the quality is all right, as is the case with Canadian creamery butter.

One important fact that has been demonstrated in connection with this season's trade is that if the quality of our creamery butter is not quite equal to the best Danish it is a very close second. Prof. Robertson, in the interview to which we referred in last week's issue, says: "I compared some Canadian creamery in the same warehouse with Danish butter. The finest Danish was still superior to the Canadian, but the Canadian was better than the second quality of Danish. In Denmark it is the general practice to pasteurize the cream before it is ripened for churning. In Canada few butter-makers do that in the summer months." This is a distinct advance on the position which our creamery butter occupied two or three years ago, and shows clearly that it is gradually getting a firmer and stronger foothold in the markets of the old land, that in a few years will take more than even Danish competition to replace.

Our creamery butter trade has then long since passed the experimental stage and is now in such a position that it will grow almost of its own accord providing the quality is of the best. And this is the important thing that should concern every dairyman in this country. A really remarkable improvement has taken place in the quality of Canadian creamery butter during recent years. But as we have already shown it has not yet reached the highest place in point of quality, and has several advances to make before every pound of butter that leaves Canada for Great Britain is equal to the best Danish. And this should be the aim of everyone connected with this important trade. We are surely "getting there," and with the same steady perseverance and determination to excel, which has characterized our butter-makers during the past year or two, it will only be a very short time till Canadian creamery will have a reputation equal to that of Canadian cheese, and stand without a superior in the British markets.

According to Prof. Robertson's statement there is one way in which improvement can be made. Pasteurizing the cream before ripening it for churning would certainly help to secure a more uniform and better flavor. Uniformity in make and also in flavor is very important, and it seems to be in these particulars that the Danish article is superior to the Canadian. There has been plenty of Canadian creamery butter exported which has compared favorably with the best Danish, and it is very satisfactory to know that this quality has greatly increased during the present year.

The question of pasteurization and the use of pure cultures in butter-making was brought before our readers two weeks ago in a letter published from the Ontario Agricultural College, Guelph, strongly advocating their adoption by butter-makers. If following out these practices which are followed so generally in Denmark, will bring about the desired uniformity in our creamery butter there should be no hesitation on the part of our butter-makers in adopting them.

Selection of Seed for the Particular Locality

The safe practice for the farmers is to select large and heavy seed from any strain which is of good quality for the market, and which has been productive in their locality. A still greater improvement than that is practicable. The selection of seeds from the largest, earliest, most vigorous plants as they grow would give the very best seeds from that strain or variety. The power to overcome obstacles which is in evidence in the largest and most vigorous plants is worth seeking in the seeds from such plants.

One day's work of selection when the crop is ripe, would yield the farmer enough heads from the best plants for two bushels of cleaned seed. That should be cleaned thoroughly; and the small light seeds taken out by a stiff fanning and sieving. These two bushels (more or less) of

selected seed should be sown on a plot of well prepared fertile land. The crop from that will furnish seed for the general crop of the farm of that class of grain. It is important that that plot should be in the best possible condition for crop growing. The productive qualities of those selected seeds are improved by being grown on land which bears large crops. Before the crop from the seed grain plot is harvested, a selection of the heads from the most productive and vigorous plants should again be made. These furnish the seed for the seed grain plot the succeeding year. The seed-grain plot itself should be one on which a well manured root or green crop or a clover crop was grown the previous year. In a few years a farmer could grade up the strain of seed on his farm to yield from ten to twenty per cent. more per acre. Even if he does not follow that systematic selection, if he sows only heavy, plump seeds, from the largest yielding crop he can find in his locality, he will derive very great benefit.

Q.—How is that selection first made?

A.—I would select in two ways. I would select the largest heads from the most vigorous and early plants in a field until I had two bushels of grain. That would give me seed from the plants that have proven that they had adapted themselves to the conditions of that locality, and then I would select the heaviest and largest seeds out of these. I would select only out of a heavy crop. I would choose the best piece in a field or locality.

I do not hold that variety has nothing to do with productiveness. It has a great deal to do with it. One variety often is very much more productive than another. To begin with, I would select the most productive variety or strain I could find in the locality. The point is, that a variety very productive in one locality will not maintain its productiveness in another locality. The variety by selection will retain superiority in the same locality, but taken to another locality it may not do so. If you have a variety or strain that is succeeding in yielding large crops, further selection will maintain the superiority and improve it.—*Prof. Robertson before Agricultural Committee House of Commons.*

Raising Fall Chickens

By L. E. Keyser, in "Reliable Poultry Journal."

In these hot summer days, when it is almost impossible to keep comfortable, and we have a vague apprehension that our chicks are suffering from heat and perhaps lice, it may seem out of place to suggest the bringing of more chickens into the world to battle for existence against these twin destroyers, and then to meet the common fate of all their race. But while the early hatched chicks are the best for layers, breeders and show birds, the late hatched are the most profitable for market poultry, providing we have suitable quarters for them. Chicks hatched in July and August often fail to do well because of the heat and the predominance of lice, and many successful poultrymen do not attempt to hatch during these months, but chicks that come off in the latter part of August or the first of September, if kept free from vermin, will grow as rapidly as those hatched in April. I should therefore remate my breeding pens and prepare to raise fall chicks.

These fall chicks can be sold as roasters in January, February and March, and should weigh from six to eight pounds to the pair, while the price will range anywhere from fifteen to thirty cents per pound.

So it is evident that fall chicks are the most profitable for market, and to prosecute this branch of the business I should commence incubators so that the first hatch will come off the latter part of August, and continue hatching for two months. If hens are used they can be made to cover a large number of eggs, and we can always find plenty with an inclination to sit at this season of the year. I still adhere to the primitive method of hatching with hens, and until this season have always been able to raise all the chicks I cared to, but those who have incubators can make good use of them now.

I have never tried any but purebred Plymouth Rocks for fall roasters, but from what I have seen of some crossbred fowls I should judge that a cross of the Cornish Indian cock on Plymouth Rock or Light Brahma hens would be preferable. Such crosses make very rapid growth, often reaching five and six pounds at twenty weeks. Any fowls with yellow skin and legs will make good roasters if they mature rapidly, so as to be soft and tender when fattened. "Stargy" roosters, and hard, "buddy" birds do not command such good prices, consequently we should select stock that will meet the requirements of our market. The Plymouth Rock, Wyandotte, Brahma and Cornish Indian, or crosses of these will do it, but the smaller breeds are too "buddy" for 'his purpose.

Warm quarters are required to carry such stock through to a marketable age, and if one has a large brooder house he can devote a portion of it to such stock, but if not he can build a small, cheap but warm house at a slight expense. I shall use houses 5 x 8 feet in size by 4 x 3 feet in height, and shall place twenty-five fowls in each. I can build such houses for about five dollars each, and have them warm enough to keep the fowls comfortable. I shall not use yards in connection with these houses, but will allow the fowls to roam where they will. Here the ground is usually bare of snow the greater portion of the time during the winter, and they will pick up much food. It takes about two weeks' heavy feeding to fatten them off, after they are five or six months old, and before that time I feed them so that they will make a rapid growth. I place the expense of feed for these fowls at 35 cents each, and as they will always bring 75 cents each, and often twice that, there is a nice margin on the profit side, and one that I have been unable to make from spring hatched chickens, when sold on the market.

Many poultry writers recommend egg farm poultrymen to sell off their stock about the middle of June. It is a question when is the best time to dispose of hens that are not desired for another year. If kept through the molt there will be a number of weeks that they will not lay, and thus be unprofitable, and usually in the fall the price of such fowls is very low. They will bring a better price if sold in June, yet June, July, and August are good months for the egg trade. Prices are usually better than in early spring, and the hens, if not molting or broody, will be producing the largest number of eggs. Last year July was my best month, the whole flock averaging twenty eggs each during that period, and the price held steadily at 16 cents per dozen.

I believe that it is a good plan to weed out the poor layers, and those that are inclined to molt late, from June to August, selling them in small lots, but keeping a sufficient number of the best fowls to furnish eggs from that time on until the pullets begin to lay. An egg farmer should have eggs at all seasons, and especially when the price is high. He cannot do this if he disposes of all his hens as soon as they begin to molt. Hens lay very few eggs during the molting season, but it is often as profitable to keep them as it is to raise young stock. It takes from five to seven months to grow a pullet to laying age, while a hen, if well cared for, will not entirely stop laying more than three or four weeks, and three months at the longest. While pullets will produce more eggs in the first year, counting from the time they commence to lay, hens will be productive at a time when the pullets have not reached maturity, and when eggs are comparatively high in price. I think it is a good plan to have the flock composed of at least one-third yearling hens, keeping them until they are two years old.

Ontario Crop Estimates

Last week we gave a short review of the August crop report issued by the Ontario Department of Agriculture. The same department has since issued the crop estimates for 1899 from which we take the following. The acreages are final, but the yield, except in the case of hay, will be revised in November from actual threshing results:

Fall Wheat.—This crop has an area of 1,049,681 acres harvested, yielding 14,201,314 bushels or an average of 13.5 bushels per acre. Last year 1,048,182 acres gave 25,158,713 or 24 bush. per acre. The average for the 17 years, 1882-1898, was 900,382 acres, giving 18,442,511 bushels or 20.5 bushels per acre. The yield for 1899 is, therefore, an abnormally low one. There were 214,785 acres of fall wheat ploughed in the spring, or over one-sixth of the area sown.

Spring Wheat.—Spring wheat has an acreage of 398,728, yielding 7,087,099 bushels, or an average of 17⁸ bushels per acre. This is a good showing, as last year the acreage was 389,205, and the total yield 6,873,785 bushels, an average of 17.7 bushels per acre, while the average for the seventeen years is 15.3 bushels per acre.

Barley.—490,374 acres of barley gave 14,622,922 bushels, or 29.8 bushels per acre. In 1898 the acreage was 438,784, giving 12,663,668 bushels, or 28.9 bushels per acre. The average yield for 1882-1898 is 25.8.

Oats.—This crop has the largest area of the grains. The 2,363,778 acres have yielded 89,542,162 bushels, being an average of 37.9 bushels per acre. Last year's acreage was 2,376,360, and the total yield was 86,858,293 bushels, or 36.6 bushels per acre. The average for the seventeen years is 34.5 bushels per acre.

Rye.—There were 137,824 acres in rye, yielding 2,271,382 bushels, or an average of 16.5 bushels per acre. The acreage in 1898 was 165,089, and the average yield per acre 16.2. Much of this crop, however, is fed green.

Peas.—743,139 acres yield 15,549,670 bushels, an average of 20.9 bushels per acre. Last year's acreage was 865,951, giving 13,521,263 bushels, or 15.6 bushels per acre. The average for 1882-1898 is 19.6 bushels per acre.

Beans.—40,485 acres of beans give 849,793 bushels, or an average of 21 bushels per acre, compared with 15,220 acres in 1898, giving 759,657 bushels, or 16.8 bushels per acre. The average yield of beans for the seventeen years is 17.4 per acre.

Hay and Clover.—2,505,422 acres have yielded 3,498,705 tons, an average of 1.4 tons per acre. Last year's figures were 2,453,503 acres, giving 4,398,063 tons, or 1.79 tons per acre. The average for the seventeen years is 1.39 tons. There are 2,710,268 acres in pasture.

Other Crops.—Acreages only can be given for the following crops: Corn for husking, 333,590; corn for silo, 171,935; each being an increase over last year's figures. Buckwheat, 132,082; potatoes, 168,141; carrots, 11891; each being less than in 1898. Mangel wuzels, 53,401; turnips, 153,440; each having an increase. There are only 2,206 acres of tobacco reported under cultivation, which is less than one-third the acreage of last year. There are 33,762 in rape, 7,103 in flax, and 1,146 in hops. There are 338,073 in orchard and garden, and 10,802 in vineyard.

Breeding Notes

By Stockman

Galloways.—The wonderful hardiness of Galloways has had a recent illustration from Nelson Morris, the well-known Chicago packer. In 1885 Mr. Morris bought from Mr. Bass fourteen young Galloway bulls, which he sent west to his ranche in Wyoming. In 1886 two of these died, leaving twelve. These twelve were all alive and active on the ranche at the roundup in 1898, having stood the work for thirteen years.

Herefords.—The Stone estate, of Guelph, represented by Walter Macdonald, have recently sold to Frank Harding, of Waukesha, Wisconsin, five pure-bred Herefords, consisting of three cows and two young bulls. These have gone west to a customer of Mr. Harding's in Oregon. They are animals of good individual merit, the young bull Picture-29, being an especially promising youngster. They will be good representatives of the white faces for the far west.

Cotswolds.—The movement in Cotswolds for the fall trade has already begun. Mr. Harding, of Waukesha, has taken a car load of lambs from breeders east of Toronto, as well as one from Guelph and Brampton. Other buyers have also made purchases, and several small lots of good animals have crossed the border the past fortnight.

Quarantine.—There are a large number of cattle and sheep at present in quarantine at Levis, opposite Quebec. All the recent boats have brought consignments and the officials have not been as busy for many years. The revival in the importing trade is a good sign of returning prosperity to the stock breeders.

The Dominion Live Stock Associations

Their Work Attracting Attention in the United States

The excellent work which our live stock associations are doing is beginning to attract attention outside of Canada. The following very complimentary reference to their work appeared in a recent issue of the *Western Agriculturist and Live Stock Journal*, Chicago:

"The Dominion Live Stock Associations of Canada are the most useful and practical associations we know of for the improvement of live stock."

After mentioning the work done in connection with the fat stock show, the purchasing and shipping of pure-bred stock in car lots to the west, and the publication of reports, etc., the *Journal* says:

"One of the practical things this association has done is to get half rates for all pure bred pedigree stock, which is a great saving to the members, and is greatly encouraging the introduction of pure bred stock. When the secretary first advocated this, many said it could not be done, but by united effort it was accomplished, and both farmers and breeders are benefited. We have urged this matter of reduced rates upon our stock breeders' associations, but there is so little organized effort, such small memberships—not one-half of our breeders are members of any association, and farmers are even more disinterested although live stock associations would be beneficial and profitable to breeders and farmers in many ways. This saving of freight alone would pay any breeder for life membership. If breeders would unite in a general request for half rates to encourage a more general introduction of the improved breeds of stock, the railroad officials would grant the request and give every encouragement. There are many other things that stock breeders' associations could do if the great mass of breeders were organized into a national association, or were even members of their breed association."

The Hired Man

The following treatise on the sometimes much abused hired man, taken from one of our American exchanges, gives an idea of how some farmers across the line deal with this important problem:

A good hired man is a jewel if he is not of great price, and should be kept as long as possible. The great trouble in this country is that the good hired man soon starts out for himself and has hired men of his own, and farmers, as a rule, must be content with much inefficient help.

The selection of a hired man should not always depend on great physical strength or capacity for endurance. It is common to make him one of the family, and in that case his character should count for much and his morals should be a matter of strict investigation. The hired man is as good as anybody as long as he behaves himself, and one who is polite, good tempered, intelligent and cheerful should be made to feel that all these things are appreciated.

I have found in the course of my experience that the

man who is willing to work for low wages is the one whose services cost most in the end. It is better to pay an intelligent, handy and capable man \$25 a month than to get one who cannot use tools and team intelligently for \$15 a month.

I always found it a good plan to make the hired man feel I was interested in him by giving him little privileges of one kind or another. I tried to arrange the work so as to have things in good shape for the week sometime in the afternoon of Saturday. If he wanted to go to the circus or to a convention or picnic, I tried to get ahead of him by asking him if he wanted to go before he mentioned the matter to me, and offering to give him the time.

I talked to him as if he were a human being and tried to get him to take an interest in the work of the farm by consulting with him about it, and accepting his suggestions whenever they were good, or telling him why I did not, if I did not take his advice. If he was doing the work in hand in a satisfactory way I did not undertake to make him do it my way. I had him in my service to perform certain work, and as long as it was done thoroughly and well I did not insist that he should begin in a certain way and continue as I should have done if I had been doing the work myself.

It doesn't do a bit of good to fume and fret when things go wrong, even if the hired man is to blame. If anything goes amiss through his fault I believe from personal experience he feels as badly about it as you can. If the hired man does his work neatly and quickly tell him so and show that you appreciate the fact.

A good master usually makes a good man, and this is particularly true of the American farm hand, for there is not a more intelligent class of employes, nor a class that needs more intelligence to make a success than they. Try to give the hired man a chance to show what is in him, and you may be able to sell your farm to him about the time you get ready to retire.

Pig Feeding in Ireland

A great deal has been said and written of late regarding the feeding of pigs. In this country, at least, there are several important points to be settled in connection with the feeding problem. One of the most important is to decide whether soft pork is caused by feeding certain foods or by some other practice followed in this country in raising hogs. Some definite information along these lines will likely be forthcoming before the end of the year. In the meantime the following instructions on pig feeding, given by a well-known packing establishment at Limerick, Ireland, and published in the *Farmer's Gazette*, of Dublin, will be of interest in showing the methods followed elsewhere.

"Pigs should be well fed, but not over fed. A good bacon pig of 12 stone (168 lbs.) ought to be produced in seven months from its birth. It should not be crammed, neither should it be half-starved, but fed steadily and regularly. Pigs fed steadily and regularly will give the most satisfactory results to the feeder when weighed in the factories. A hog which has been half starved at any period of its life, even though well fed afterwards, will not do so. Feed three times a day at fixed hours; never leave food in the troughs after the pigs have finished. The flesh of hogs is soft and flabby if fed on brewery or distillery stuff, or on turnips or mangels, and in comparison to their size their weight in the scale is miserable. They may deceive (we doubt it) the buyer who buys by "guess," but they will not deceive the scale-weight.

"The best classes of food for pig feeding are: Potatoes (cooked), milk, barley meal, oatmeal, crushed oats, pollard, bran, ground wheat, rye meal, Indian corn. The latter should only be used sparingly, and in conjunction with other foods, such as pollard, bran, or milk; and should always be ground as fine as the mill can make it, and thoroughly cooked, otherwise the Indian corn passes through the animal undigested, and to the loss of the feeder. Barley meal need not necessarily be cooked—scalding it will

do. It is certainly the best food, except, perhaps, potatoes, for producing pork. Never sell barley of moderate quality to buy Indian meal. Grind your barley, feed it to your hogs, and their weight when dead will astonish you.

"The secret of making money by pigs is not to rush into them, nor out of them. Never keep too many; never keep too few. The fault in the past has been that feeders ran in to buy when hogs were dear, and stayed at home when they were cheap. You will not get well-shaped pigs from a badly-shaped boar; neither will you get thrifty pigs from an unthrifty sow. If you do not keep your pigs clean and dry they will not pay you. A pig, any more than a human being, will not thrive on a foul, damp bed. The best thriving pigs we have ever seen were those produced from an ordinary well-shaped country sow and a thoroughbred York boar. The services of this latter class of animal can easily be had nowadays. A long legged, ungainly boar will get a leggy, flat-ribbed, cat-hammered, herring-gutted, miserable class of pig, which will pay nobody, and deceive nobody as to their quality, except, perhaps, the man who feeds them. The tall, leggy hog was ignorantly thought to deceive the buyer who purchases by "guess," but does not deceive the factory weighmaster.

"No matter how low prices may be, if it does not pay to feed pigs, it certainly does not pay to starve them. The way to have cheap stores is to breed them yourself. If you cannot afford to keep a breeding sow yourself, get two or three of your neighbors to join you, and divide the expense and the progeny. A good sow is easily fed, and is the best savings' bank you can have. The day you buy is the day you sell. If you pay too much for the store you will want (but will not get) too much for the bacon pig. Where a proper sow is kept, young pigs can be produced for 1s. a week of their age, that is to say, eight weeks, 8s.; 10s., and so on, up to twelve weeks. Why should the feeder pay practically double this for them? One great secret of pig-raising is, when the pigs are high in price don't lose your head and throw your money away; when pigs are low don't lose your head and throw your pigs away."

CORRESPONDENCE

Locked-Wire Fence Com- mended

To the Editor of FARMING:

In regard to what kinds of fences are used mostly around here I might say that straight rail and barb wire have been used in great quantities till this year. The Frost locked-wire is gradually taking the place of those mentioned. Where wire has been used on the roadsides snow blockades are not as great. As to people herding their stock it would not be a success. Farmers must have an outside fence along the road at least and they cannot do better than use a wire fence.

JAS. W. KENNEDY.

Agincourt, Ont., Aug. 3rd.

Butter Tubs: Shorthorn Bulls Wanted

To the Editor of FARMING:

Some years ago I got some tin-lined butter tubs from a firm down here. I sold them to the farmers here, and they gave universal satisfaction. One member of the firm has since died, and the others don't know where they came from. Can any of your readers tell me where they are manufactured?

I also want a carload of Durham bulls, six months to one year old. I am not particular about their being purebred; good grades will do, providing they are good animals. I would take them this fall or early next spring. Perhaps

the car could be made up during the summer in some section where a number of the farmers could contribute.

B. W. RALSTON.

Amherst, N.S. Aug. 16th, 1899.

Eastern Ontario Cheese Much Improved

To the Editor of FARMING:

In reply to your favor of the 26th inst. I might say that I have used ice in three factories this season with good results. We find we can keep the temperature from five to seven degrees lower quite easily and the air very moist in dry, warm weather by keeping ice in the curing-room. The only sub earth duct I know of in this section is one that we put in in one factory with cold storage facilities, where our Dairy Commissioner, Prof. Robertson, is making some investigations in regard to the curing of cheese and the use of Formalin, but we have nothing definite to report as yet. We find, however, that by the use of the sub-earth duct we can keep the temperature very low and that a liberal use of Formalin will keep off the mould, but we are troubled very little with it.

In my opinion the cheese in Eastern Ontario is a great deal better than in previous years. Of course we have not had the dry, warm weather to contend against that we have had some seasons, and I do think that a great many of our cheese are shipped out of the factories before they are properly cured.

E. KIDD.

North Gower, Ont., August 10th. 1899.

Liming Soils

To the Editor of FARMING:

In your issue of July 25th, in a letter written by G.F., of Milton, Ont., he says that he has been experimenting with fertilizers for years; if he so desires that his results of the experiments with manures would be any benefit to his brother farmers, would it not be well for him to publish them in detail.

Lime applied to sour soils will sweeten them, or applied to heavy lands will loosen them. Lime applied as a manure will act like a sharp stroke of the whip to the horse or a glass of spirits to a weak man; it will exert a false energy for a time at the expense of the future.

I would suggest that Mr. G.F. would take a five acre field, and apply lime to one half and a good manure to the other half, crop and work the whole field for five or ten years alike, and give the readers of your paper the full detail results.

I will venture to predict that the experiment will be as follows: That the half where lime was applied will decrease in productiveness from time to time until nothing can be grown, and the half where manure was applied will increase from time to time until the maximum crop is reached.

W. A. FREEMAN.

Hamilton, Ont., August 9th, 1899.

NOTE—About all agricultural authorities and teachers agree that the liming of soils is necessary on lands that have been under cultivation and cropping for a number of years. The grain and bones of animals sold off the farm are constantly depleting the soil of a certain amount of lime which if not replaced will leave the land deficient in that mineral.

Then there is a certain amount of dissolving of the lime in soils, due to the action of rains and which is carried off by drainage, etc. This dissolving of lime is seen in water in wells in calcareous soils which contains a more or less quantities of lime. Of course there is a danger of overdoing the thing, and the formation of chloride of

lime will poison vegetation, but we hardly think such a thing would occur if good judgment were used in its application. The average soil requires an application of lime about every five or six years say of about one ton per acre. Heavy clay soils or light sandy soils might require it oftener.—*Editor.*

Cement Hog Pens

To the Editor of FARMING:

As a builder of concrete walls and floors I have had considerable experience in connection with the building and planning of a number of large barn basements and hog pens. I give, in the following, a description of a hog pen that I built for Mr. John MacCaleston, Donegal P.O., township of Elma, last season, and there are a number of the same kind being built this season. The size of the building is 30 ft. x 40 ft., and 7½ ft. high and 8 in. thick, with a drive house above. For the construction of these walls I used 30 barrels of Thorold Hydraulic Cement, manufactured by the estate of John Battle, and 25 yards of gravel, with as many small stone as could be laid in the centre of the walls.

The cost of building a pen of this size would not exceed \$70 which I consider is much cheaper than it can be built of any other material. This estimate does not include the wood work, but just the walls. There are six windows 2 ft. 6 in. high by 4 ft. long, and 4 doors the full height of the walls and 3 ft. 6 in. wide in the clear between jams. The building is so arranged as to have the feed room in the centre. This room is 6 ft. wide and the full length of the building, thus leaving room on each side for pens, which are divided off into apartments 8 ft. x 11 ft. in size. The concrete floors were put in so as to have a gradual fall to the centre of the pen, where there is a small gutter which runs the full length of the building through each pen. This one gutter drains all the soakage and can be kept covered with a board or plank so as to keep the manure from stopping the drainage. I find that this plan of a cement floor gives the best satisfaction, because it keeps the sleeping-room and feeding-room both dry.

M. A. WARE.

Allanburg, Aug. 10, 1899.

A Suggestion for Farmers' Institutes

To the Editor of FARMING:

In FARMING for August 8th an article appears under this heading, and as the writer touches upon the vital point allow me to enlarge along the same line. The question has often arisen in my mind: What is the future to be of this movement? viz: The Farmers' Institute. The question admits of only one answer, and that is just what we, as farmers, make it. I do not look upon the Farmers' Institutes simply as an organization to meet at different points and hear the delegates sent to us by the Provincial Superintendent. While we must admit that he does his utmost to procure the best talent at his disposal, to us who act as secretary we know that often our meetings are lacking in that enthusiasm which this movement demands.

There is no organization to-day that affords so many opportunities for the farmers to become educated in things pertaining to their calling as the Farmers' Institutes. I like the word Institute. It is not a club, debating school, grange or patron organization, but a school where the farmers should meet to unravel what is tangled, to reveal what is hidden, and to educate and be educated. The cause to day of the farmer being so powerless is not the want of education but being so much and so often isolated. We forget the adage: "In union there is strength."

The Farmers' Institute should not only be provincial but local and local all the time. The subject of farming is not only instructive but inexhaustible and we should be

able to receive and dispense new thoughts on this great subject of agriculture. We should be willing to meet for at least six months in the year every two weeks and discuss everything pertaining to our calling. Each local Institute should have a constitution governing itself and in that constitution should recognize that it is part of a grand whole.

I do not believe that farmers should be content to talk simply about the farm and its products. There are other subjects that indirectly effect us that we should take up at our meetings and when the welfare of the farmers demand united action we should be in a position to act. Trusting we will hear more on this subject.

JAMES G. MUNRO,

Secretary North Oxford Farmers' Institute.

Only Eight Bushels Per Acre Expected

To the Editor of FARMING:

In reply to your favor of July 22nd regarding the growing of fall wheat, I would answer as follows.

1. Plowing under a full crop of clover or peas in June and then keeping land thoroughly cultivated until seed time is the best preparation for the crop.
2. Have not used commercial fertilizers. None used or very little in this district.
3. From the 4th to the 10th of September has usually given best results here for sowing.
4. Dawson's Golden Chaff, Red Clawson and Manchester in the order named have given the best results here.
5. Usually change seed about every three years sowing our own seed in the interval.
6. About 50 per cent. of fall wheat plowed up in spring only about 10 per cent. of balance harvested which will probably average eight bushel per acre.

Fall wheat made an exceptionally vigorous start in September, 1898. October was unusually warm and the Hessian fly made great havoc in the fields by the 1st of November. Most of the wheat fields on light and medium soils were as yellow as gold; on heavy soils not so bad. This weakened the plant. Then the extreme cold of February without snow damaged it still further. In June another hatching of the fly came out and finished it. Poor-est wheat crop in 50 years, or since the great frost of '57 or '58.

THOMAS H. MASON.

Staffordville, Elgin Co., Ont., Aug. 11th, 1899

Summer Fallow, Inverted Sod and Pea Land

To the Editor of FARMING:

In answer to your questions regarding my methods of growing fall wheat I would say:

1. My best wheat has always been grown on a well worked summer fallow, but I have found it very profitable to plow in a crop of mammoth red clover about the second last week in June, keeping the land well cultivated until sowing time.

When the clover fails to make a good stand peas for ploughing under makes a splendid substitute. Last year I had a ten acre field of fall wheat that was green manured in the summer of 1897 with peas. The yield was 42 bushels per acre of wheat that weighed 63 lbs. to the bushel. Peas were ploughed in when the first bloom appeared, and kept cultivated until the first week in September; but perhaps the most profitable preparation for wheat is to plough a one year's clover sod immediately after the hay has been taken off. Disc or cultivate the land repeatedly until the seed is drilled in. Land that has been broken out of pasture sod and sown to peas as soon as the crop is harvested should be lightly ploughed—not more than four inches. A wide point on a single furrow plough

that has a wheel in front is the best implement with which to break up the pea land. There is no danger of it shying out when it comes to a hard spot. But whether the preparation has been a barn-yard manured fallow clover or peas turned in as a green manure, which is practically a summer fallow, a clover sod or pea land, the two most important points are to *keep the fertility near the surface* and work up a *fine seed bed* about three inches deep, so that the young plants will get a quick start in the very first stage of their existence. A lumpy, rough, knotty surface is a poor preparation for wheat. The cultivator, disc harrow, roller and smoothing harrow frequently used will bring the soil into a fine tilth, making it loose and friable, so that the plant food will be made available in the best form for the young wheat. I am now preparing in this way three fields, viz., summer fallow, inverted sod and pea land.

2. I have not used any commercial fertilizers, but keep up the fertility of the soil with barnyard manure, clover and peas as green manure. Clover sod and pasture sod, with thorough surface cultivation, have given me very profitable results during the past twenty years.

3. The best time to sow is the first week in September, but if the land is strong and rich, and has been well worked, it may do as late as the tenth, but late wheat seldom gives very satisfactory results. It has not vitality enough to stand the cold winds and frosty nights of April and May, and is much more liable to rust than that which has been earlier sown.

4. The wheats that have given me the best results during the past fifteen years have been the Martin Amber, Clawson, Garfield, and Dawson Golden Chaff.

5. As to seed, I buy after new wheat has passed the experimental stage, and has proved itself a productive field cropper. I continue to sow it until some hardy new variety is introduced, when I again purchase. Sced grain should be properly cleaned with the fanning mill, and all small and shrunken grains sifted out, and nothing but the full, plump seed sown. With seed thus judiciously selected and changed from one kind of soil to another, there is not much danger of deterioration. I know this from close observation and practice. I work two farms a mile apart, the one a productive clay, the other a gravelly loam. The seed is seldom sown two years in succession on the same farm, but changed from the one to the other.

As to the probable yield of the 1899 crop of fall wheat, this is rather a difficult question to answer, for large areas were ploughed up; much that was left was seeded to grass. Around the fences the wheat was good, but in the centre of the fields nothing but hay. In fact, some farmers mowed over a ton per acre out of the middle of the fields, leaving a wide strip of good wheat around the fences. I think the wheat that was left will average about fourteen bushels per acre.

D. C. ANDERSON.

Rugby, Simcoe Co., Ont., Aug. 11th, 1899.

Commercial Manures and Wheat

To the Editor of FARMING:

I think you take too much for granted when you intimate that our farmers will cease growing wheat to a considerable extent. This wheat-growing movement has now got all the way around the globe, and we find that the older countries which abandoned it because the then west was producing more cheaply, have now taken it up again. The reason for this is, no doubt, the increasing demand for wheat created by the growing population of the earth. Now, unless we can grow wheat in the Pacific Ocean we have about got to the extremity of "Western wheat lands." We must now turn our attention to increasing the yields per acre or we will be in a fair way to illustrate Sir Wm. Crook's direful prediction.

Referring to the five answers to your second question in reference to wheat "Have you used commercial fertilizers on

this crop, and if so with what result?" I beg to offer some criticism which I trust will be taken in a friendly spirit.

Mr. G. H. Brodie says: "No, land rich enough." If he is growing the largest possible crop of the best wheat, which can be procured at a paying rate and leaving the land still as well able to reproduce, he has an ideal condition. I think he should tell us how much wheat he grows to the acre, both maximum and minimum crop year by year.

Mr. G. J. Gaston says, "It will not pay. They cost too much." I think he too should give us statistics of his wheat crops, and include present cost of production and profit. Also he should be more explicit as to what "cost too much." He is too well informed a man, I take it, to go it blindly, so he should be able to give us some valuable information on his own experience in manuring with things which "cost too much."

W. C. McGregor says, "We have never used commercial fertilizers." This being a plain statement of fact, I would ask him to give us statistics of his wheat yield for several years if possible, and also to tell us if his crops are quite satisfactory as to quantity and quality of grain and ripening and stiffness of straw.

John Douglas says, "I have never used commercial fertilizers on fall wheat, as I consider nothing is better than barn-yard manure, and always sow plenty of clover in all your land."

No better sources of nitrogen are known to agriculture than farm-yard manure and clover, and the condition of humus resulting from the decomposition of these materials in the soil cannot be duplicated by anything else. But while these manures tend to give large yield and even heavy straw, they alone will not produce either the largest amount the best grain or the best condition of straw. Commercial manures can never properly take the place of these valuable manures, but as to producing the best, and particularly to inducing the grain yield, phosphate is necessary in much greater quantities than they supply, a pure available phosphate should be added to the land.

E. J. Pearson says, "I have not myself, nor do I know of any of my neighbors, who have used commercial fertilizers on fall wheat, therefore cannot give an opinion on the results," and so he speaks for his neighborhood.

It is to those gentlemen who have had no experience in the use of any forms of commercial manures I would speak. They will get their experience sooner or later, and in doing so they will do well to keep in mind these few facts:

(1) Commercial manures are aids and not the whole manure of a field.

(2) In using them you aim to provide the want of the crop not sufficiently supplied by the farm manures.

(3) There are four very important substances required for every crop—nitrogen, potash, phosphoric acid and lime.

(4) The two first are well supplied by farm yard manure and the first one by clover, if the clover is itself well supplied with phosphate and potash.

(5) The two latter, phosphoric acid and lime (together, forming phosphate), are in poor supply in the farm yard manure, and the well-known deficiency of the soils in phosphoric acid, and often even in lime, nullifies the beneficial action of clover.

(6) To get a full crop, then, you must have plenty of nitrogen, but to get the most and best grain you must have even an excess of phosphate. The wheat ash shows over 76 per cent. phosphate, and if you aim at producing the best as well as the most you must not neglect so important an element. The straw on, the other hand, must have attention, and we find it takes nearly all the potash of the crop.

Now that we have proof that seventy to eighty bushels of wheat can be grown profitably by so phosphating the land as to have an excess of phosphate, nothing less should be our aim. If you can double your wheat yield and improve the quality of your roots and grass for several years by the addition of phosphate *in conjunction with* your barn manure and clover, will it pay? Weigh it up!

Toronto, Ont., Aug. 11, 1899.

F. C. WALLACE.

The Farm Home

The Common School and the Common Kitchen.

By MRS. S. T. RORER.

Statistics show that one-half of all the children born die before they reach the twenty-first year: one-third of these before they reach the twelfth month, nine out of every ten from preventable causes. This mortality is by no means necessary, and upon examination we find, in almost every instance, improper food the cause. One of our fallacies—if, for any reason the child is deprived of its natural food—its mother's milk—they immediately give it cow's milk. Now, the milk of the cow, being intended for the calf, necessarily is not fitted for the human being; the former reaches maturity in two, three, or, at the outside, four years, the human being at sixteen, seventeen, or perhaps twenty-one. Examine the milk of the cow and you will find all the necessary elements for the rapid growth of the calf. Examine the milk of the mother and you will find the necessary elements for the slower development of the infant. My good friend, Dr. Wiley, remarks, "This lack of wisdom can easily be proven by a visit to the grave-yards." These are things that must be taught in our common schools.

I will say a word about the size and arrangement of the common kitchen. The lack of money in no way interferes with the skill and knowledge of the housewife. Let the kitchen be small, with stove, sink and table in close proximity. A cabinet table, of course, is a convenience, as it holds all the necessary utensils and materials for the day's work, thus saving the running backwards and forwards from the closets, and perhaps a storeroom on the second or third floor. If one-half of the kitchen table is covered with zinc it saves scrubbing, and allows one to stand a hot pot down without injury to the table. The large half-sitting room kitchens are an abomination—things must be kept in another room out of sight. At the beginning of a meal miles are walked in collecting the necessary things before the actual preparation is begun. Far better for the housewife to have a room especially for cooking, all conveniences at hand, the meal quickly gotten and cleared away, that she may take her exercise or walking in the fresh open air. The furnishing of such a kitchen would not cost, exclusive of stove, over thirty dollars, as a good cabinet table in these days can be purchased for five or four and a half dollars. A good cooking school kitchen, where from twenty to twenty-five girls can be taken in class, should not cost over two hundred dollars; in fact, exclusive of the tables and stove, fifty dollars would

cover all necessary utensils. Economy in furnishing is as necessary as economy in the use of materials.

Removing Wall Paper.

A good method, perhaps the best known, to remove old wall paper is to place a boilerful of water in the room, drop in red-hot bricks or stones, and keep the room closed as long as steam is generated. Repeat until the paper is saturated with the steam. The work of removal must then be done very quickly, before the walls become dry. I once took off three layers by wetting the paper with boiling water (a great deal had to be scraped off with a knife), but the hot water injured the graining of the woodwork; it was dull looking ever after.

An experience regarding papering over old paper may be a warning to some young housekeeper. The paper-hanger, in response to protests, said, "The paper will look just as well if put on over the other," and proceeded to his work. When his attention was called to its lack of smoothness, he said, "It will be all right when it gets dry"; but it wasn't, and the wrinkles remain to blemish the work. Do not let any one persuade you to put new paper over the old. It should not be done, for hygienic reasons, if for no other.

The man or woman who will invent a safe and expeditious method of removing wall paper will have struck a bonanza, will be a benefactor of his race, and receive the everlasting gratitude of all housekeepers. We think that any acid strong enough to act on the paste would spot the paint if it came in contact with it.—*Orva.*

Some Odd Superstitions.

There are superstitions almost without limit, and their adherents are numerous. An authority has said that there is not a rite or a ceremony now practised and revered among us that is not descended from barbaric thought and usage. This is the only origin that can be assigned to the large majority of the superstitions still existing, and the reason for them are even more difficult to trace.

Here are some of the things collected by Miss Whitney:

If you spill salt at any time, throw some over your left shoulder, or you will have trouble. The salt thrown in this way, it is believed, goes into the eyes of the little devil who is lurking around to manufacture the trouble. Salt, it is thought, always averts evil, because it is not found in witches' kitchens.

If you are out and meet a flat-footed

man or woman, go right home and eat a good square meal and drink some water, or something dreadful will happen. It is believed evil spirits enter through the soles of flat-footed people.

In Italy, when a baby is born, the relatives of the child sit up with it the first night. They place a new broom across the threshold and a bag of salt with a napkin behind the door. This keeps the witches away, as to enter the room the witch has to count the straws in the broom, count the grains in the bag of salt and count the threads in the napkin. By the time she has done this the baby is baptized and the witch retires in disgust.

If a bald person dies, he will turn into a fish and remain in that form until he collects enough hair to make a wig. He can only collect one hair a month and at a certain phase of the moon. The superstition does not say what becomes of the man after he has collected enough hairs, but anyhow he stops being a fish.

This is a rhyme, common among children in Southern Maryland, supposed to ward off evil:

"God made man and man made money—
God made the bee and the bee made honey;
God made Satan and Satan made sin,
God made a little hole to put the Devil in."

You dig a hole in the ground, say this and then fill in the dirt, and it is very effective.

This one cures a horse of founders: "There was a man rode over the land with three worms in his hand. One black, one white, the other red, and in an hour all three were dead." Stand the horse with his head toward the sunrise; take your right hand and rub from the nose over the head and neck to the end of the tail while you say the words. Do this three times every two hours. Give some purgative medicine.

Easy Enough to Guess Age.

There was once a wise king who was awfully curious. He was possessed of a desire to know everything, and was continually asking questions. Indeed his thirst for knowledge carried him so far that he wanted to know the age of every person he met. But, being a king, he was exceedingly polite, and would resort to strategy to gain his ends.

One day there came to the court a gray-haired professor, who amused the king greatly. He told the monarch a number of things that he never knew before, and the king was delighted. But finally it came to the point when the ruler wanted to know the age of the professor, so he thought of a mathematical problem.

"Ahem?" said the king. "I have an interesting sum for you; it is a trial in mental arithmetic. Think of the

Exhibited at Toronto, London, Ottawa Fairs, etc.

Farming.

A PAPER FOR FARMERS AND STOCKMEN

Farming is a paper for farmers and stockmen, published weekly, with illustrations. The subscription price is one dollar a year, payable in advance. Postage is prepaid by the publishers for all subscriptions in Canada and the United States. For all other countries in the Postal Union add fifty cents for postage.

Change of Address.—When a change of address is ordered, both the new and the old address must be given. The notice should be sent one week before the change is to take effect.

Receipts are only sent upon request. The date opposite the name on the address label indicates the time up to which the subscription is paid, and the change of date is sufficient acknowledgment of payment. When this change is not made promptly notify us.

Discontinuances.—Following the general desire of our readers, no subscriber's copy of **FARMING** is discontinued until notice to that effect is given. All arrears must be paid.

How to Remit.—Remittances should be sent by cheque, draft, express order, postal note, or money order, payable to order of **FARMING**. Cash should be sent in registered letter.

Advertising Rates on application. Letters should be addressed:

FARMING,
CONFEDERATION LIFE BUILDING,
TORONTO.

QUESTIONS AND ANSWERS

A JAPANESE ENQUIRER.

N. S. Kobayaski, Japan, asks the following questions: "What is pasteurizing? What is the difference between a pasture and a meadow? What is a patron? A simple plan for aerating milk? What is butter color made from? How can I carry safely ten pounds of butter sixty miles during the summer season?"

In dairy practice what is known as pasteurizing is heating the milk or cream to a temperature of about 160° Fahrenheit in order to check the development and growth of germ life in the milk or cream.

A pasture is a piece of grass land upon which live stock on the farm are allowed to graze or feed. A meadow is a piece of land upon which the crop of grass is cut when sufficiently matured and cured for hay or feed for live stock.

In connection with our co-operative dairy system a patron is a term applied to a person supplying milk to a cheese factory or creamery.

The simplest plan for aerating milk is to stir and pour it with a long-handled dipper when the milk is in a can or pail. There are aerators patented in nearly every dairy country which fit on top of the can, and the milk is poured through them. As it passes through the aerator the milk falls in a more or less fine spray into the can, and by this plan the milk is exposed to the atmosphere, and a large amount of the objectionable flavors frequently found in milk driven off.

The butter or cheese color used in this country is made from the seed of the annatto, a small tropical American tree.

A good way to carry 10 lbs. of butter 60 miles in hot weather would be to have a box or package made to hold that amount, and a larger one made in which the smaller one could be placed

COMMON SENSE KILLS Roaches, Bed Bugs, Rats and Mice. Sold by all Druggists, or 381 Queen W. Toronto.

BEWARE OF IMITATIONS

Canada's Great Eastern EXHIBITION

BERBROOKE, Que.

SEPTEMBER 4th to 9th, 1899.

FIVE FULL DAYS OF FAIR AND TWO EVENING PERFORMANCES. More varied and extensive Programme of Attractions.

ADGIE and her TRAINED LIONS

A most thrilling performance, executed by her troupe of Royal African Monarchs of the forest

MOA & GOODRICK

COMEDY ACROBATS, in their unique, uproarious and undulating entertainment.

DARING AND CAPTIVATING

BICKETT FAMILY

Aerialists Supreme. Four handsome young ladies and one male athlete in the most remarkable performance ever seen in mid air.

The Bark-Ben-Achments

in a series of most wonderful gyrations upon rolling globes.

Carl Dahmann Troupe

Composed of the foremost French, German and Algerian Acrobats, from the leading European circuses and theatres.

Rosaire and Elliott

Grotesque Acrobats, Comedians and Pantomimists

The Martelles

Fancy Trick and Acrobatic Bicyclists. The only act of its kind in the world

Dashing **Mile PROSPETTO**

Daring introducing her two educated horses, HEITHIRAH and MOWBOKOR. Many other Acrobats, Contortionists, Aerialists, Tumblers, Jugglers, etc

Balloon Ascensions—Single and Double Ascensions and Parachute Leaps and Balloon Races.

Elaborate Fireworks—"British and Americans at Samoa."

Exciting Races—Running, Trotting and Racing. \$1.925 in Purse.

Grand Agricultural and Industrial Display. Massed Bands of Music. Excursions on all Railways.

Admission to Grounds, 25c. Carriages, 50c. For further particulars, Price Lists, Entry Forms, etc., apply to H. R. FRASER, Mgr.

THE FINCH WOOD— PRESERVATIVE AND PAINT
Unequalled for Farm Buildings. Send for Circulars.
FINCH WOOD PRESERVATIVE AND PAINT CO.
TORONTO, ONT.

ASTHMA

LIEBIG'S ASTHMA CURE

Will cure Asthma, Hay Asthma or Hay Fever. A TRIAL BOTTLE sent FREE OF ALL CHARGE to any sufferer sending us their name and address. Mention this paper.

Address **The LIEBIG CO.**
179 King St. W., Toronto.

CURED.

CANADIAN PACIFIC RY.

HARVESTERS WANTED IN MANITOBA AND CANADIAN NORTH-WEST

FARM LABORERS' EXCURSIONS
WILL BE RUN TO FOR

From stations in Ontario, Toronto and West, AUGUST 22 East of Toronto, AUGUST 24

WINNIPEG..... And all stations North-west, West and South-west to MOOSE JAW..... ESSEVAN..... YORKTON..... COWAN.....

\$10

Every passenger will be given a certificate, which must be deposited with Agent immediately on arrival at station where passenger finally leaves the train. Providing conditions of certificate are complied with, and on surrender of same properly filled out and signed and payment of \$15, the original holder will receive a ticket back to starting point. Eastbound journey must be commenced on or before Nov. 22, 1899.

Choice of routes:—All rail via North Bay; or Lake and Rail via Owen Sound.

Stopover will be allowed at Winnipeg and points beyond.

Special Train leaves Toronto at 1.30 p.m. August 22 and 24, via North Bay. Through Colonist Sleepers will be run Toronto to Winnipeg.

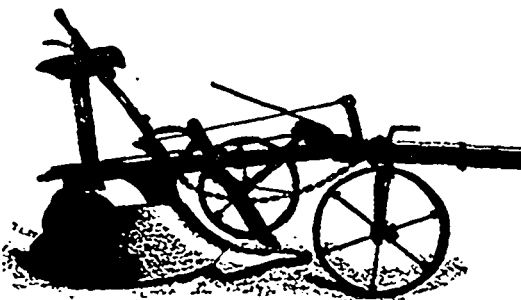
Ask your nearest Agent for pamphlet giving particulars.

A. H. NOTMAN, A.G.P.A., Toronto.

BEST SULKY PLOW

IN THE MARKET

The Lightest in Weight.
The Simplest in Working.
The Easiest in Adjustment.



The Lightest in Draft.
The Strongest in Construction.
The Highest in Quality.

THE LOWEST IN PRICE

Adjustments for any ground or any depth made by one lever. Fitted with the only perfect Tilting Coulter and Stubble Cleaner. A Plow without an Equal. Send for Circulars and Price List.

The Perrin Plow Co.
LIMITED
Smith's Falls, Ontario

and surrounded with ice. If the transportation was made by rail in a comparatively short time the butter might not take any harm if freshly packed in a small crock or glass jar and a good coating of brine or salt placed over it.

Selecting and Breeding Dairy Cows.

Twenty Important Points Worth Remembering.

1. Select the best cows in your herd, or that you can buy, to keep, and dispose of the unprofitable ones.
2. The best cow for the dairy is the one that produces the greatest amount of butter-fat in a year (for food consumed) when being rightly fed.
3. Test your cows by weighing the milk of each cow for a year, and testing occasionally with the milk tester, and know how much butter-fat each one does produce.
4. To renew or increase your herd rear the heifer calves from your best cows.
5. Use the best dairy-bred bull you can get; one, if possible, that has a long line of ancestors, and have been first class dairy animals.
6. In this way you can make each generation better than the preceding one, if they have at all times proper care and feed.
7. It is neither profitable nor necessary for a cow to go dry more than six to ten weeks.
8. Especially should your young cows be watched and not allowed to acquire the habit of drying up too soon.
9. Keep a record of the time when cows are bred, and have no guess work about the time of calving.
10. The udders should receive prompt attention. An obstacle may be removed from the teat the first hour after calving that might baffle science later.
11. A pail of scalded bran should be given to the cow as soon as possible after calving.
12. After separating the calf from its mother, feed new milk as soon as drawn, for a week or ten days.
13. Then begin gradually to substitute skim-milk with cocoanut oil meal jelly stirred into it.
14. Feed three times a day, and not more than three quarts at a time, until the calf is well started.
15. Warm the milk by placing the vessel that contains the milk in hot water. Do not put hot water into the milk.
16. Warm the milk to 90° Fahr.
17. Don't trust your finger, but a thermometer. It may save a calf's life.
18. The man whose ideal of a cow is high, coupled with good care, feed, and gentleness, is sure to receive the highest profit in milk and pleasure that can be made in dairying.
19. Do not milk the udder out clean if the weather is very cold until the fourth day after calving. This will



No Mystery

The Sherwin-Williams Paints are not patent paints, nor chemical paints, but pure white lead and zinc and oil and drier and color and nothing else. These make honest paints that cover most and best, and wear longest. There is a reason why these are the best paints. This reason is not a secret nor a mystery. It is because by hard study, hard work and patient improvement for thirty years we have made the best paints that can be made—

THE SHERWIN-WILLIAMS PAINTS

The prejudice which many sensible people have against ready-mixed paints is due to the number of inferior mixtures sold in cans. No one doubts to-day that paint can be made with the latest scientific appliances better than can be mixed from the raw materials by hand-work and guess-work. The moral is plain. Buy ready-mixed paints in which you have absolute confidence. The paints with the best reputation. The Sherwin-Williams Paints. Send for booklet "Paint Points." Free.

THE SHERWIN-WILLIAMS CO., PAINT & COLOR MAKERS,
Canadian Dept., 21 St. Antoine St., Montreal

The National Cream Separator



Style No. 1.
Capacity—330 to
350 lbs. per hour
Price. \$75.00.

MANUFACTURED BY
THE RAYMOND MANUFACTURING CO.
LIMITED
GUELPH, ONTARIO

A wise investment that progressive farmers are buying as they buy other useful machinery. The National will yield from $\frac{1}{2}$ to $1\frac{1}{2}$ lbs. of butter per week per cow more than is being done by the old laborious wasteful methods of skimming milk. One pound of butter per week from one cow for 9 months, at 15c. per lb., will pay 8 per cent. interest on the cost price of the National. Easy to run by boys 8 to 12 years old. Easy to clean. Simple to operate. The neatest in style and finish. A perfect skimmer. Guaranteed as represented, and a trial for one week given to intending buyers. If not satisfactory, may be returned to us at our expense. No risk. Sold on their merits. Send for testimonials and Catalogue.

GENERAL AGENTS
Creamery Supply Company

MARKET SQUARE, GUELPH, ONTARIO

Also Dealers in Creamery and Dairy Supplies.

ACTIVE AGENTS WANTED

The Ashes of Wheat

Are 76 per cent. Phosphates

By far the greatest portion of which is Phosphate of Magnesia. The requirements of an acre of average crop of clover are 25 per cent. more phosphate than wheat or other grains and 75 per cent. more magnesia, and an acre of turnips requires over 50 per cent. more Phosphate than the grains.

Thomas-Phosphate Powder

(REGISTERED)

is the safest manure to meet these demands, as it supplies Phosphate of Magnesia as well as Phosphate of Lime and of Iron. Faithful experiment has shown that Thomas-Phosphate increased the yield of mutton by 175 per cent., whereas the hay yield has only increased 50 per cent. Turnips properly phosphated have also shown greatly increased feeding value.

THE
THOMAS-PHOSPHATE CO.

BOARD OF TRADE,
TORONTO.

prevent a chill, which often produces milk fever.

20. Know what it costs to keep each cow and what each cow gives in return for the outlay.—*The Dairy*.

Stock Notes.

T. A. COV, Brantford, Ont., reports business brisk in Berkshires and poultry. He will exhibit 25 Berkshires and a number of poultry in the different classes at the Toronto and other fairs, and will be pleased to meet all his old customers and also breeders desiring first-class stock.

AYRSHIRES FOR MANITOBA.—Mr. James Yuill, foreman at Honorable Thomas Greenway's stock farm at Crystal City, Manitoba, has just taken away the first carload of Ayrshire cattle ever shipped to that province. He purchased a few of the best young cows and heifers from the herd of W. C. Edwards, M.P., Rockland, Ont., and a few of the best young cows and heifers from James Boden, St. Anne's de Bellevue, Quebec, and from J. Yuill & Sons, Carleton Place, Ont., the two fine heifers that were shown by them in the young herd that took first prize at Ottawa last autumn. Altogether they made the best carload of Ayrshires that has ever left Ontario.

MR. A. C. HALLMAN, New Dundee, Ont., writes: "Have decided to again exhibit at the Toronto Industrial, but will only exhibit Tamworths. Will show an average of my herd. My herd of Tamworths is more complete than ever. My imported boars are giving me excellent service. Over 100 pigs in the herd of very best quality and breeding. My Holsteins are still kept up to the high mark they have attained at the leading shows in Ontario. My bull, Judge "Akum De Kol," is a dandy, and would score high in the show ring. Will be pleased to meet my old friends and many new ones at the Industrial."

H. BOLLERT, of Cassel, Ont., writes that a short time ago the Messrs. Rettie Bros., of Norwich, Ont., paid Maple Grove a pleasant visit, and took home with them the grand three year-old heifer Guillemette, Abbecker, to strengthen their show herd. They had formerly scoured the most noted herds in the State of Ohio, but could not find anything to equal her. She is a grand individual with perfect and great udder development, exceedingly richly bred, and a great performer. They knew that Maple Grove Holsteins are among the best in America, as they formerly got their Great Aaltje Posch 4th from here. She stood 5th best (in all America) last year, and tested over 23½ lbs. butter in seven days under adverse circumstances, which, if nothing falls her this fall, she will exceed. Among many pleasant letters recently received from customers is one from Mr. E. M. Woodworth, of Lacolle, Que., who got some stock last winter, among them the two-year-old, Heimke 4th's Colantha. His words are, "Heimke 4th's Colantha on grass alone gave 47 lbs. milk in a day, testing 5.2 per cent. of butterfat, which places her at the head of all heifers of her age in America." She was two years old March 30th, and due to calf May 8th. She certainly is a Dairy Queen. A. E. Plummer, of Woodville, N.B., also writes of a grand good one (which he got from me some years ago) in Geldertje 2nd. In 10 months she gave him 10,800 lbs. milk testing from 4 to 9 per cent. butterfat at three different periods. Such Holsteins should be rich enough to satisfy anybody, and they are the kind we continually aim to breed and sell to our customers.

Publishers' Desk.

A Progressive School.—An elaborate catalogue descriptive of the Central Business College, Stratford, Ont., is mailed free to all who are desirous of securing shorthand or business course. The Central Business College, enjoys a fine reputation for superior work, and opens for the Fall term on Tuesday, Sept. 5th. W. J. Elliott is the principal.

TREDINOCK STOCK FARM, ST. ANNES DE BELLEVUE, QUE.

Imported and Home-Bred Ayrshire Cattle

Winners of 31 prizes in 1898 at Toronto, London and Ottawa—17 of them Firsts.
Six Young Bulls for sale, five of their dams shown at the above three shows, and all sired by Imported Bulls, four of them being by Napoleon, the Sweepstakes Bull of Toronto.
Also a few HEIFERS and COWS. App'y to
ROBERT REFORM, JAMES BODEN
Prop. St. Annes de Bellevue, Que. | Mgr.

...FOR SALE...

8 SCOTCH SHORTHORN BULLS

From 10 to 18 months old. 1 BULL 2 years old, bred by O. & W. B. Watt, Salem. Also a number of

COWS AND HEIFERS

DAVID MILNE, - - - Ethel, Ont.

Farm for Sale.

A SNAP

\$5,600 BUYS a Forty-Nine-Acre FRUIT FARM six miles from St. Catharines, Ont. Splendid House, Barn, Well, Etc. Good terms to right party.

Address,

GEO. W. KEYES.

St. Catharines, Ont.

Drawer 30.

A Trifle

BUT—

Salt seems a trifle, but it will either make or mar Butte or Cheese. Use Windsor Salt which adds to the sweetness, and to the price.

Perfectly pure, dissolves uniformly
All progressive Grocers sell

WINDSOR SALT

The Windsor Salt Co., Limited
Windsor, Ont.

HERMANVILLE

..TAMWORTHS..

I HAVE several litters nursing, and also a number of June litters of the highest quality and bluest blood in North America. The "Parkhill Mab" strain of Tamworths can only be obtained from me. I make a specialty of choice breeding and Exhibition stock. I like to ship when "ready to wean." I respectfully solicit your valued orders, and will be glad to quote you prices, delivered free in any part of Canada or the U.S. Address—

Hermanville Farm, P.E.I., Can.

Wm. Butler & Son

Dereham Centre, Ont.

Importers and exporters of Pure-bred Live Stock. Breeders of Guernsey cattle, Chester White and Duroc Jersey Swine. Stock delivered free in carload lots to any part of Canada. Write for circulars, calendars, etc. if



SUMMERHILL HERD OF YORKSHIRES



The Lengthy English Type

The largest herd of Imported and Canadian-bred Yorkshires of the large English type in Canada. 25 matured imported sows, among them being several royal winners. Six imported sows sired by Buddington Lad, Royal winner and gold medal boar for the best pig of the white breed. Have those imported stock boars bred by such breeders as Sanders Spencer and Philo L. Mills. 25 April pigs (imp) of both sexes for sale. Also a number (imp) in dam. 200 Canadian-bred pigs of all ages for sale. Write for prices. Personal inspection preferred. Prepay express charges and guarantee stock as described.

D. C. FLATT, Millgrove, Ont.

.. HIGHEST TYPE OF BACON HOGS..

Oak Lodge Herd of Large Yorkshires



The Largest Herd of Pure-Bred Yorkshires in America.

This herd has won the best prices offered for the breed during the last ten years. Only one breed kept, but the choicest of its kind. Three imported stock boars and several sows that have all been winners at the largest shows in England, also winners at prominent Canadian and United States shows. Pigs of all ages for sale. if

J. E. BRETHOUR, Barford, Ont.

The 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.

VOL. II.

No. 45

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 twice a month. Over 10,000 copies of this directory are mailed monthly. Copies are sent to each Agricultural College and each Experiment Station in Canada and the United States, also to prominent breeders and probable buyers resident in Canada, the United States and elsewhere.

A member of an Association will only be allowed to advertise stock corresponding to the Association to which he belongs; that is, to advertise cattle he must be a member of the Dominion 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 9th 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 next condensed form.

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

Tent of Superintendent of Farmers' Institutes.

The Superintendent of Farmers' Institutes will again have a tent situated on the grounds of the Toronto Industrial Exhibition during the time of holding the fair this year, August 30th to Sept. 8th, and will be pleased to meet officers and members of Farmers' Institutes and of the Live Stock Associations, and any person interested in agriculture. Breeders of live stock, Institute workers and others are also invited to make this tent their headquarters while in attendance at the Exhibition. A desk and writing materials will be placed at the disposal of visitors. Further particulars will be given at a later date.

The Registrar of Live Stock will attend Toronto, London and Ottawa Exhibitions

H. Wade, Registrar of Live Stock, will be found in the tent of the Superintendent of Farmers' Institutes at the Exhibition Grounds, Toronto, from Thursday, the 31st of August, to the end of the Exhibition, for the accommodation of breeders who wish to have their animals registered. He will also visit London and Ottawa and will remain two or three days at each show. While at London or Ottawa his whereabouts may always be learned by enquiring at the office of the Secretary of the Exhibition.

Notes.

Messrs. Caldwell Bros., Orchard, write us under date of August 11th, 1899, that they have decided to sell out in Ontario and remove to Manitoba, and that all their stock is for sale. If not sold by private contract between now and January next they will call an auction. One of the firm visited Manitoba during the present season and was so much pleased with the country that they have come to the decision above referred to.

While we are sorry to lose these enterprising breeders from Ontario, we

wish them every success in the home of their adoption.

Mr. W. M. Smith, Fairfield Plains, exhibited at the Winnipeg Industrial Exhibition where he did very well. Among his exhibits was an Ayrshire bull calf "Surprise of Fairfield," which took silver medal for best bull any age. This was one of the best Ayrshire calves ever raised in Ontario. Mr. Smith sold him to Messrs. Steel Bros., Glenboro, Man., for \$150.

Farm Help Exchange.

From time to time enquiries are received from farmers wishing to hire help asking if suitable men are known. There are, no doubt, at all times, good places vacant or filled with incompetent men because a more competent man is not apparently available. There are also plenty of good, honest, reliable men able to fill these positions acceptably if they had the opportunity. The difficulty is that the one wishing work is unaware of the vacancy while the employer does not know of suitable persons unemployed. A number of men have been placed in positions by this department which has proved satisfactory to both employer and employee. This has led us to the opinion that such assistance might successfully be given to a larger number, and be of much service to all concerned.

The plan worked out is as follows: We wish to obtain the names of all who are looking for positions on a farm, with particulars as to age, experience and references; also in what particular department of farm work a position is desired, and what wages are expected; when last employed and reasons for leaving. These names when received will be published free in the two following issues of THE AGRICULTURAL GAZETTE, and will then be kept on file in the office until notified that a position has been secured. One thing should be noted, viz., to send us notice as soon as a person is no longer open for engagement.

We will then furnish upon application (besides being published as above) a list of unemployed to any person desiring farm or dairy help. When making enquiries for help full particulars as to the position should be given, to include the particular work to be done, probable length of engagement, wages, etc. These situations vacant will also be published free in THE AGRICULTURAL GAZETTE in the first two following issues. Should a person desiring engagement or a person wishing to engage help not wish the fact published, the name and particulars will be kept on file only.

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

F. W. HODSON, Secretary.

Situations Vacant.

(On farm or dairy.)

Situations Wanted.

(On farm or dairy.)

Suitable Canadian and English students placed with reliable farmers.

Canada's Live Stock Export Trade.

CATTLE.

The amount of money that annually finds its way into the pockets of Canadian farmers who feed for the Old Country markets is quite large, and would be considerably increased if a better class of stock were handled, and the same care and skill in "finishing off" as are found in the largest and best stables were more generally practiced. During the season of 1898 there were exported from the port of Montreal 90,049 head of cattle, which with 2,187 head sent from Quebec, made a total of 101,236 head exported from the St. Lawrence route. Out of this total, however, must be deducted 5,719 United States cattle which were sent via Montreal in bond. As more than a setoff against these latter about 21,548 Canadian cattle were sent from Boston and other American ports, the larger number of these being bought by an American syndicate to fill up space on steamers which they could not satisfactorily fill with animals purchased on the other side of the line. Deducting the American cattle shipped in bond there were 117,065 head of cattle fed in the Dominion, which found their way across the ocean on British, Canadian and American liners. This is independent of the thousands of stockers which were shipped to Buffalo from Ontario and other points, many of which eventually reached the

Old Country in a finished condition to be classed as "Americans."

The average price per head paid for "shippers" during 1898 is given at \$55 as against \$60 the year previous, being a decrease of \$5 a head. The total value of the Canadian cattle shipped from the St. Lawrence and American ports thus runs up to \$6,438,575. As compared with 1897, there was a decrease of 20,139 head shipped from Montreal.

Buyers had much in their favor last year. They bought their cattle cheaper, railway freight rates were low, feed was cheap, while ocean freight rates were also down, and insurance also cost them only $\frac{3}{4}$ of one per cent. as against $3\frac{1}{2}$ per cent. paid in former years. Gordon & Ironsides, of Manitoba, head the list of exporters with 30,641 head.

HOW OUR CATTLE SELL IN GREAT BRITAIN.

In the early part of the season prices obtained in the London market for Canadian cattle ruled about 11c. per lb. They fluctuated somewhat till July when as high as $11\frac{1}{2}$ c. was paid. In October prices broke down to $8\frac{1}{2}$ c., which was the lowest figure quoted. They afterwards rose to the same level as at the commencement of the season. As a rule the Liverpool market ruled lower than London. A satisfactory trade for a first season was done with Manchester via the Manchester ship canal. From Glasgow the returns were not very satisfactory.

COMPARATIVE PRICES FOR CATTLE FROM CANADA AND OTHER COUNTRIES.

When we come to compare the prices paid in the London market for cattle from Canada, the United States and Argentina the results are not favorable to our stock. In May, Canadian cattle brought 11c., American, $11\frac{1}{4}$ and Argentine stock, $9\frac{1}{2}$. In September we find the latter selling for $\frac{1}{2}$ c. a lb. more than Canadian cattle, and this advantage was retained pretty much till the end of the season, while the difference in favor of the American cattle rose to as much as $1\frac{3}{4}$ c. Here is food for grave reflection. Are Canadian cattle going backward or are the United States and Argentine stock improving while ours are only holding our own?

What are the causes of this difference in value?

These are not far to seek. During the depression which prevailed throughout Canada a short time ago, beef ruled comparatively low in price, and consequently the general run of farmers neglected their stock, used the cheapest bulls for service they could get, oftentimes a scrub one or a registered one with nothing to recommend him but his pedigree, with the deplorable results that are seen to day. Our neighbors to the south of us, while somewhat influenced in the same manner, yet did not run to such extremes, and feeders in the great corn-growing states, who knew that they could not utilize their "golden" crop to better advantage than in feeding steers and hogs for the Chicago and other markets, kept on pretty much in the same manner as

hitherto, so that the general quality of their cattle was fairly well maintained. It is the possession of these bounteous crops of corn, in itself so cheap a feed, and yet so satisfactory for finishing off cattle, that gives American feeders such a pull over Canadian. Put both on the same footing as regards feed and the quality of their live stock, and this advantage would disappear.

As regards the Argentine cattle, the improvement in the prices received for them is the result of the steady improvement of their stock, which has been and is still being carried on with such persistence and energy. Far-seeing breeders pay good prices for thoroughbred sires and dams, and are surely and quickly reaping the benefits of their intelligent action. While a short time ago the cattle found in that country was of a kind far removed from the standard of export stock, already there are thousands of fine animals shipped to Great Britain, and their number and quality will be continually augmented. Argentine presents a splendid example of what the use of purebred stock can accomplish when backed by energy and intelligence.

THE SHEEP TRADE.

The season of 1898 was a most unsatisfactory one for the sheep export trade. The principal reason for this was found in the large numbers of sheep exported to Great Britain from Ireland, in consequence of which the markets became demoralized and sheep had to be sold for whatever prices they would bring. The first Canadian sheep arrived in July and sold for 10c. a lb. During the latter part of August prices, which had previously gone up to $10\frac{1}{2}$ c., fell to 9c., but recovered later up to $11\frac{1}{2}$ c. In October they again fell to 9c., but once more reached $11\frac{1}{2}$ c. The average sales during the season were 32s. a head at Liverpool, 36s. at London, and 35s. at Glasgow. 34,991 head, a decrease of 26,263 as compared with the total shipments of 1897, left Montreal for Great Britain. In 1896 the number exported was 45,680. The average value in 1898 at \$5 a head amounted to \$174,955. Most of the sheep exported were shipped to London.

HORSE EXPORTS

The export horse trade fell off nearly 50 per cent. in 1898 as compared with 1897. The reason for this lies principally in the fact that exporters could not find sufficient horses of the right kind to ship, and sooner than lose money shipping inferior stock, which, at best, meet only a slow, dragging sale at any time, they were content to take what few they could find to suit their purpose. 5,822 head in all left Montreal, as against 10,048 in 1897. During the season prices obtained ranged, as a rule, from £20 a head to £66 3s., the latter figure being readily obtained for heavy draft horses. One superior Canadian-bred draft horse realized £75 at the Islington cattle market. For cobs and harness horses as much as 76 guineas were given with higher figures in special cases, as in former years most of the horses were sent to London.

SCHOOLS.

TORONTO

**Don't
Hold
Back
That
Inquiry
For
Information**

Perhaps you've seen our advertisement before, and made up your mind to look into the matter of a business education. You put it off for a time. Don't delay any longer. Business is on the boom. Business hands and business heads are wanted along every line. Prepare to be on the crest of prosperity's wave. Learn Shorthand, Bookkeeping or Telegraphy.

**CENTRAL
BUSINESS
COLLEGE,
TORONTO,
ONT.**

W. H. SHAW,
Principal.

GROUND IN BUSINESS PRINCIPLES and PRACTICE

The foundation principles of business are taught pupils attending this College. The whole education is of a character that enables them to enter business life knowing how to take on its duties.

Enter now for a course in

**BOOK-KEEPING
STENOGRAPHY
OR
TYPEWRITING**

British American Business College

Y.M.C.A. Building, Cor. Yonge and
McGill Streets

DAVID HOSKINS,TORONTO
Chartered Accountant, Principal.

STRATFORD

Fall Term Opens Sept 5th

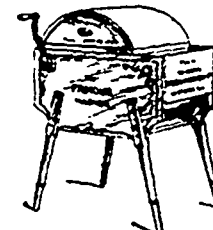
**Central
Business College**

STRATFORD, ONT.

Write to day for our new catalogue. It's the finest business college catalogue in Canada, and represents the most progressive and best school.

W. J. ELLIOTT, Principal.

THE FAMOUS WASHER



The Cheapest
Machine Made.

Is the **Quickest,
Cleanest** and
Best Washer in the
market, and the most
suitable machine for
the farmer.

A giant for work, and will last a lifetime.
Circulars and price lists free.

TORONTO NOVELTY WORKS

J. A. GOWANS, Proprietor.
154 SPADINA AVE., TORONTO, ONT.

It is to your advantage to mention FARMING when writing to advertisers.

Market Review and Forecast

Office of FARMING,
Confederation Life Building,
Toronto, Aug. 21st, 1899.

Reports from the leading business centres indicate that the outlook for a busy fall trade at generally remunerative prices was never more promising. The extra prices being paid for cheese and butter are helping the country trade immensely, and wholesale firms were never more sanguine of the future of trade than at present. Money is steady, and there seems to be a gradual shifting of the foreign money markets toward firmness.

Wheat.

The wheat markets have gained considerable strength during the week, and at the close a much stronger and firmer feeling was reported, especially in foreign markets, which has materially effected values on this side. While this is true, one would judge that the situation had not an inherent strong outlook from the fact that statistics are against it. Last year, when the visible supply was down to 6,897,000 bushels, and the world's total amount in sight was only 26,817,000 bushels, September wheat was selling at about 66c., but to-day, with a visible supply of 36,256,000 bushels, and the world's supply in sight 68,336,000 bushels, it is selling at 70c.

There is an improved inquiry in the English market and there has been more doing in both home and foreign at increased values. In regard to the situation on this side the *Price Current* says:

"The general tendency of the wheat markets was upward most of the week now ended, and although the higher position reached has not been maintained, there is at the close a decided improvement compared with a week ago, when December wheat at Chicago closed at 71½c., against which 73¼c. or 1½c. advance, reflects the position now. The upward shaping of sentiment found encouragement in the official estimate of the situation of spring wheat. While the trade had recognized the lowering of the promise in the Northwest it had not calculated on such a decline as the official exhibit suggested, in comparison with a month ago."

The Montreal market has ruled steadier during the week at 68c. to 69c. for red winter wheat f.o.b. at western points. On this market quotations are 67c. to 69c. for old and 67c. for new, north and west. On the Toronto farmers' market red and white brings 73c.; spring life, 66c.; and goose, 68½c. to 69½c. per bushel.

Oats and Barley.

Reports as to the oat crop are good and a big yield and of good quality is expected. The English markets have fluctuated during the week, but very few Canadian are going forward. At Montreal some new oats have appeared, which have sold at about 1 cent per lb. The quality was excellent. There is reported to be an improved export demand. The market here has an easier tendency and new oats offering sell at 25 to 26c. north and west. Old oats are quoted at 26 to 27½c. west. On the Toronto farmers' market oats bring from 29c. for new to 35c. per bush. for old.

There is more inquiry at Montreal for malted barley, which is scarce, and brings 46 to 50c. per bush. Barley is quoted here at 40 41c. west.

Peas and Corn.

There is not much doing in peas, and the old stock is reported to be hard to sell. Here peas bring from 47 to 48c. for new and 57 to 58c. for old, west. On the farmers' market they bring 62c. per bushel.

There continues to be a general improvement in the reports regarding the American corn crop, which is causing an easier feeling. The available supplies at present are considerably smaller than a year ago, which may counteract this easier tendency. American corn is quoted here at 41 to 42c. on track, k Toronto.

Bran and Shorts

The Montreal market is quiet and steady under limited supplies. Ontario winter wheat bran is quoted at \$13 50 to \$14, Manitoba at \$12.50 to \$13 in bags, and shorts \$15 to \$16 per ton. City mills here quote bran at \$13 and shorts at \$17 in car lots, f.o.b. Toronto.

Eggs and Poultry.

The wholesale egg market at Montreal keeps firm with a decided upward tendency. The receipts continue to be considerably behind those of last year, and buyers have had to advance their ideas at least ½c. with quotations at 15 to 15½c. for selects. There is quite an improvement in the quality of the receipts. The English markets keep firm with an upward tendency in prices. There is quite a demand at Glasgow for Canadian eggs. Eggs seem to be plentiful here at 11 to 12½c. wholesale, and 13 to 14c. for choice new-laid. On the Toronto farmers' market new-laid eggs bring 13 to 15c. per dozen.

On the farmers' market here chickens bring 40 to 75c., and ducks 50 to 80c. per pair, and turkeys 9 to 11c. per lb.

Potatoes.

Receipts are larger at Montreal and quotations are 35 to 40c. per bag in lots of 25 to 30 bags. Supplies are moderate here and the demand is fair at 50 to 60c. per bag. On the Toronto farmers' market they bring 5 to 75c. per bag.

Fruit.

The report of the National Shippers' Association of the United States as to the apple crop shows the crop in the various states in the Union to range from 25 to 75 per cent. of a full crop, or an average of about 50 per cent. Canada is reported to have an average of 65 per cent. of a full crop. This is considered by some in the trade to be too low, but we are inclined to think that it is not far off the mark. The general fruit market at Montreal continues about the same. In Canadian fruits receipts of peaches have been heavy at 30c. to 40c. per basket as to quality. The quantity of cheap grade pears has been too large for the demand, while there is not a sufficient quantity of good quality; prices range from 25c. to 40c. per basket. The demand for Canadian plums is just beginning and receipts are readily taken at 40c. to 50c. per basket. Receipts on Toronto market have been large though prices have been firm and the market active. White peaches are quoted at 25c. to 30c. and red 40c. to 60c.; plums 30c. to 50c.; pears 30c. to 50c., and apples at 15c. to 25c. per basket.

Hay and Straw.

There is quite a considerable portion of last year's hay crop in farmers' hands. It is expected, however, that this will suit the English market better than this year's crop, as there is more clover in it. This year's crop contains more timothy, and it is expected that there will be a fair demand for it in the Eastern States, which are reported to be short. At New York last week prime timothy was selling at \$18 per ton, and No. 1 at \$17. There is not much new business to report at Montreal, where prime is quoted at \$8.50 to \$9, choice No. 2 at \$6 to \$7 25, and ordinary at \$6 50 per ton. Cars of baled on track here are quoted at \$7 to \$8.50, and straw at \$4 to \$4.50. On the Toronto farmers' market new hay brings \$9.50 to \$10 50, sheaf straw \$7 to \$7.50, and loose straw \$4 to \$5 per ton.

Cheese.

The cheese situation is strong and still on the upward tendency, though a little quieter feeling was reported at the end of the week due to the English dealers holding back a bit. But the situation is strong and with no accumulation of stocks on either side and with the make falling off at many factories and a good consumptive demand there is not any like-

lihood of prices going back any. In fact, the indications are that prices may go even higher for August goods. Montreal quotations are 10½ to 10¾c. for finest Western colored, and 10¾c. for white. Finest Eastern colored are quoted at 10½ to 10¾c., and white at 10½ to 10¾c. From 10 to 10½c. have been the ruling bids at the local markets during the week, and sales are reported at Brockville at 10¼c. At some of the Western markets factorymen were not inclined to sell and preferred to wait for even higher prices. Though they have never been in a better position to hold yet it is questionable whether it would be advisable to do so at present values. Cheese has now reached a point at which there is very little profit for the English dealer in selling the sixpenny cut, and experience reaches that when he has to go above that, consumption rapidly declines.

Butter.

Notwithstanding that so far this season we have shipped twice as much butter as last season for the same time, the market continues to advance and is still on the upward grade. What the outcome will be it is hard to say. Dealers are looking to Australia, where an unusually large make is reported, and which is expected to arrive earlier than usual. But the English and European supply continues to be scarce owing to the excessive drouth. And this is the strong feature in the situation. The *Trade Bulletin's* London cable of August 17th reads thus: "The market keeps very strong, notwithstanding the liberal receipts of Canadian, which seem to be picked up as soon as landed, and I have to record a further advance of 5s. to 6s. per cwt., with an upward tendency. Finest Canadian creamery 106s. to 110s.; good to fine creamery 100s. to 104s.; inferior 84s. to 90s.; Danish 116s. to 120s."

At Montreal prices have advanced 1 cent per lb. during the week and quotations there are 21½ to 22c. for choice creamery, and 20 to 21c. for good to fine. Some sales at the creameries are as high as 22c. for pet factories, while others have sold at 21½c. The New York market has also advanced during the week, and finest creamery is quoted there at 21 to 21½c., which is an advance of 2½ to 3c. per lb. within the past few days. Quite a lot of Western dairy has been sold at Montreal at 15 to 16c.

The market here is active. Creamery prints are reported scarce at 21 to 22c., and boxes at 18 to 19c. Dairy is quoted at 16 to 17c. for choice tubs, and 15 to 16c. for pound rolls. On the Toronto farmers' market pound rolls bring 18 to 20c. per lb.

Wool.

There is nothing new to report in so far as the market for Canadian wool is concerned. At Toronto prices are still 13 to 14c. for fleece and 8c. for unwashed.

Cattle.

The cattle situation has not changed very much during the week. Really well finished cattle are in good demand with prices well maintained, while inferior and poorly-finished cattle, which are too plentiful, are a kind of drag. The offerings of really fine cattle at Chicago during the week have been small, which has helped to maintain prices for inferior stock. It will pay farmers to fit their cattle properly before sending them to market. The run of live stock on Toronto market on Friday was not so large and the quality of the cattle offered was only of medium grade, there being too many both butchers' and exporters' coming forward. Trade was fair. All well-finished cattle found a good market at fair prices, while unfinished cattle, which were plentiful, were dull of sale.

Export Cattle.—Choice loads of heavy exporters sold at \$4 90 to \$5.12½ with light ones at \$4.25 to \$4 60 per cwt.

Butchers' Cattle.—Choice picked lots of these, equal in quality to the best exporters, but not so heavy sold at \$4.40 to \$4.50, good ones at \$3.50 to \$4.10, and medium at \$3.40 to \$3.65 per cwt.

Stockers and Feeders.—Several lots of stockers were offered on Friday with prices ranging from \$2.50 to \$2.75 for heifers and inferior steers, \$3 to \$3.25 for medium to good, and \$3.30 to \$3.50 per cwt. for choice picked lots of well-bred steers. Light feeders bring from \$3.40 to \$3.60, and heavy ones of good breeding \$3.75 to \$4 per cwt.

Milk Cows.—These bring from \$25 to \$45 each for the bulk. Some choice cows sold on Friday at \$50 each.

Sheep and Lambs.

The general trade for good sheep continues active at most points. Choice lambs at Buffalo, weighing 75 to 80 lbs. each, rule firm, with sheep dull. On Toronto market on Friday export sheep sold readily at \$3.75 to \$4. with a few picked lots bringing \$4.10 per cwt. Butchers' sheep brought \$3.25 to \$3.50 per cwt. Prices for lambs were firmer, selling at \$4.75 to \$5 per cwt. or \$3.50 to \$4.25 each.

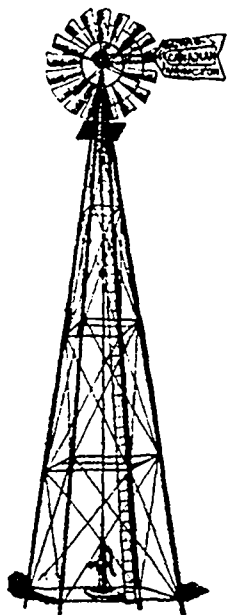
Hogs.

The delivery of hogs on Toronto market on Friday was large. Prices were steady at \$5 62½ for select bacon hogs of good quality, not less than 160 nor more than 200 lbs. each, unfed and unwatered (off cars), which is an advance of 12½c. per cwt. over last week's quotations. Thick and light fats bring \$4.75 per cwt., and unculler car lots \$5.25 to \$5.50 per cwt. Essex and Kent corn fed hogs sold at \$5 per cwt. There are too many light hogs coming forward which should be fed a few weeks longer. The Montreal market continues firm at \$4.85 to \$5 per cwt., and \$4.50 for heavy weights. The *Trade Bulletin's* London cable of Aug. 18th re Canadian bacon reads thus: The market during the week has been characterized by great firmness, and prices of Canadian have advanced another 3s.; No. 1 Canadian pea-fed 60 to 65s.; No. 2 do., 56 to 59s.; fat and stout 51 to 56s.

Sherbrooke's Fair.

The Directors of Canada's Great Eastern Fair report an unusually early influx of entries. Sherbrooke's Fair has earned a reputation for treating exhibitors right, and of course the result has been that the old exhibitors have always returned. The different departments have each shown a marked growth annually, and at each show visitors, one and all, have expressed themselves as pleased. "The satisfied patron is a permanent patron."

WIND MILLS



If You Need a
RELIABLE
WINDMILL

Before Buying See
the

**Canadian Steel
Air Motor**

Will: Save Labor
Save Time
Save Money

Points: Power
Strength
Simplicity

Supplied H. M. Govern-
ment and C. P. Railway.

Pumps, Tanks, Grind-
ers, Hay Tools, Water
Basins.

Ont. Wind Engine and Pump Co., Limited
TORONTO.

800 SECOND-HAND AND NEW.... BICYCLES

**FOR SALE
AT FROM
\$5 UPWARDS**

If you want but a single Bicycle it will pay you to send for our prices, while if you want a dozen we can quote you such prices as will surely induce you to buy of us. All dealers will tell you this is the dullest time of the whole year in the Bicycle trade, and we are determined to close out our stock, especially the second hand ones, at some price. Correspondence and visits solicited. Bicycles sent on receipt of \$1.00, subject to inspection before being paid for.

... ADDRESS OR CALL ON ...

Ellsworth Cycle Co.

209, 209½ and 211 YONGE ST.

LARGEST BICYCLE
STORE IN CANADA

TORONTO, ONT.

STILL IN THE VAN

SEED WHEATS

Pearce's Paramount
Gold Coin
Diamond Grit
Early Arcadian

AND ALL THE LEADING VARIETIES

CATALOGUE Now Ready—Send for One.

Also, our 72-page POULTRY CATALOGUE—Ready to Mail Sept. 1st.

BULB CATALOGUE Now Ready.

JOHN S. PEARCE & CO.

LONDON, ONT.

**CHEERFUL
FRUITS & RANGES**

OUR
BOOK MARK
MAILED ON REQUEST

JAS. STEWART MFG. CO.
WOODSTOCK, ONT. (LIMITED)

ESTABLISHED 1877.

A. H. CAMPBELL, President.

R. H. TOMLINSON, Manager.

British Canadian

HEAD OFFICE:

25 Adelaide Street East
Toronto

LOAN AND INVESTMENT
COMPANY, Limited

Capital Subscribed, \$2,000,000
Assets - - - \$2,003,000

MAKES LOANS on all classes of Real Estate Securities. PURCHASES MORTGAGES, Municipal Debentures, etc. ISSUES DEBENTURES. The Company also receives money on deposit, for which debentures are issued for three to five years, with interest coupons attached, payable at its bank, free of expense. Clergymen, trustees, and others having money to invest will find these debentures a handy investment. Apply to the Manager.

A Few Desirable Improved Farms For Sale.

R. H. TOMLINSON

FARM LOANS

CREDIT FONCIER F. C.

This Company has a large amount of money to lend on improved farms at low rates.

Correspondence is invited from farmers who wish to buy more land, to improve their properties, or to save money by reducing interest.

W. E. LONG, Manager,
28 Wellington St. East.
TORONTO.

Feeds and Feeding

A book for Farmers and Stockmen.
Price, \$2. Sent postpaid on receipt of price. Address

Farming
TORONTO

ALEXANDRA AND MÉLOTTE CREAM SEPARATORS

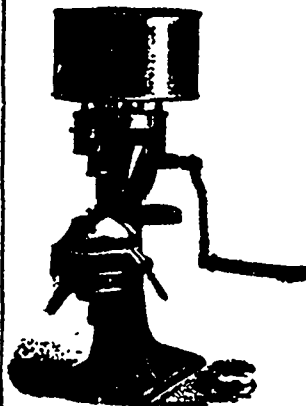
Have beaten the "Alpha Laval" eight times and all other competitors in public working trials. Sent out on free trial and guaranteed to give perfect satisfaction. Come and see these machines working at the TORONTO EXPOSITION.

For full particulars apply to

R. A. LISTER & CO., Limited

579 & 581 St. Paul St. MONTREAL, QUE.

SENT ON FREE TRIAL

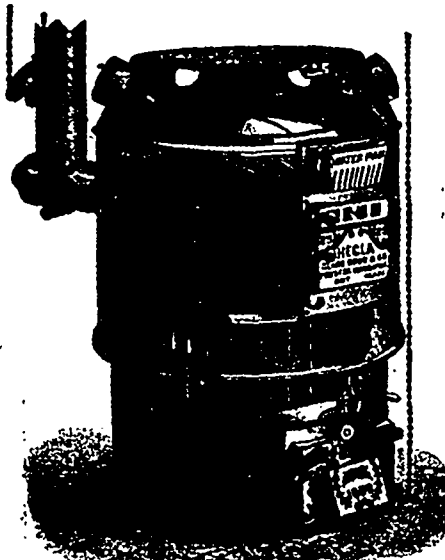


SATISFACTION GUARANTEED

Let Us Heat Your House...

WITH OUR

Hecla Coal or Wood Furnace



In which we have incorporated all the latest improvements in Furnace construction.

The Dome and Radiator are combined and constructed with our Patent Fused Joint, making it absolutely gas-tight.

It is fitted with a large double-feed door, making it suitable for large, rough wood.

The fire-pot is in two pieces, with a flanged extended surface, which keeps it from warping or burning out.

The Hecla works perfectly with any kind of fuel: hard coal, wood and soft coal, for which we provide a Hot Blast attachment which ensures perfect combustion.

Send a rough sketch of the building you want heated and we will give you estimates and advice.

We Manufacture all kinds of
Furnaces, Stoves and Hollowware.

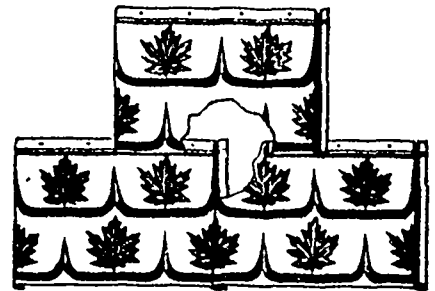
WINNIPEG,
MAN.

CLARE BROS. & CO.

PRESTON,
ONT.

IF PEOPLE ONLY KNEW

the advantages of using metal roofing, constructed on our patent "SAFE-LOCK" principles, they would not accept a substitute.



OUR "SAFE-LOCK" SHINGLES

interlock each other on all four sides—leaving no openings for snow or rain to get in. They are easily put on by anyone—are practically fire and lightning proof and give a building a neat, finished appearance. We can tell you more. Ask for free catalogue and samples.

The Metal Shingle and Siding Co.
(Limited)

PRESTON, - ONT.

POTATOES - -
CABBAGE - -
= = = CARROTS

Potato disease may generally be checked or prevented by a judicious use of salt, which also acts as a solvent of potash compounds, and keeps off the grubs. Cabbages and carrots require 300 to 700 lbs. salt per acre in proportion to the lightness of the soil. Kohl rabi requires similar quantities.

R. & J. RANSFORD,
Clinton, Ont.



Blood Relationship

Prompts you to buy from a member of your own family, if he sells goods that you desire to purchase, in preference to his competitors with whom you are not connected.

Massey-Harris Farm Implements

are made and sold by your own countrymen, and the money you pay for same benefits you and your country.

Therefore, why buy foreign made machines?

FARMERS !

Test the use of

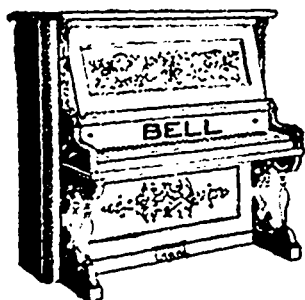
Lime as a Fertilizer

for yourselves, by using thirty bushels to an acre on your summer fallow as a top dressing. Harrow it in with the seed.

The increase in yield and improvement of quality is astonishing.

DON'T DELAY

BUY FROM THE NEAREST LIME MERCHANT.



BELL PIANOS AND ORGANS

BUILT TO LAST A LIFETIME

SEND FOR DESCRIPTIVE CATALOGUE (NO. 41) TO

The BELL ORGAN AND PIANO Co., Limited, Guelph, Ontario.

LARGEST MAKERS IN CANADA.

FREEMAN'S THREE-PLY READY ROOFING

... EASILY APPLIED ...

Great Reduction in Prices. Send for Price List, etc

Parliament Buildings, Toronto,

October 20th, 1898

THE W. A. FREEMAN Co., 37 Ferguson Ave., South, Hamilton, Ontario:

Gentlemen,—Nine years ago I purchased from you a large quantity of material known as Freeman's Ready Roofing, with which I roofed the north half of my barn and two sheds, 60 x 20 each. This year we re-painted this roof and found it in excellent condition. A shingle roof put on part of the barns two years before was badly in need of repair. I shall hereafter use your ready roofing on all my out-buildings.

Yours truly,

(Signed) F. W. Houson

GET THE KIND THAT CURES
or your money goes back to you. There is nothing "as good" as
MITCHELL'S ANTI-LUMP JAW
because no other remedy on the market dare offer "money back if it fails," as we do. Our remedy is endorsed by the leading ranchers and shippers.
Send for Booklet about Lump Jaw
Price, \$2, postpaid
W. J. MITCHELL & CO.
CHEMISTS
WINNIPEG, MAN



Persicatic Sheep and Animal Wash

A powerful non-irritant and healing preparation that is proving a boon to farmers all over Canada for sheep and cattle ailments, such as:

TICKS
MAGGOTS
GANGRENE
SHEAR CUTS
RED LICE ON SHEEP
WOUNDS
RINGWORM
BRUISES, ETC., ETC.
AND SCAB.

Full directions on every can. Cures the worst cases. The most effective and economical dip on the market. If your dealer can't supply you, write us direct for it, and if there's anything out of the ordinary in the ailments of your flocks and herds we'll be pleased to give free any additional advice in the matter.

The Pickhardt Renfrew Co.

(LIMITED)

STOUFFVILLE, ONT.



Trade Mark