

Technical and Bibliographic Notes / Notes techniques et bibliographiques

Canadiana.org has attempted to obtain the best copy available for scanning. 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 scanning are checked below.

Canadiana.org a numérisé 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 numérisation sont indiqués ci-dessous.

- 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
- Only edition available / Seule édition disponible
- 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.

- Additional comments / Commentaires supplémentaires: Continuous pagination.

- 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

- Includes supplementary materials / Comprend du matériel supplémentaire

- Blank leaves added during restorations may appear within the text. Whenever possible, these have been omitted from scanning / 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 numérisées.

Farming

A Paper for
Farmers and Stockmen

Large English Berkshires



Are of the long bacon type. My herd is headed by three grand young boars, of different strains. My sows are all a grand lot of the long English type. Have twenty-four first-class young sows from four to six months old. Have a few young boars left for sale. Also the First Prize Boar under a year at London, and five other shows. One Yorkshire Boar, six months old, never beaten in his class. Price \$35.00. Pedigree furnished. Write for prices. Address, or come and see stock.

T. A. COX, Brantford, Ont.

Bailey's Hydraulic Ram

Runs 24 Hours a day and 365 days a year.

40 Years' Experience. **Water Water Water**
FOR FOR FOR
House Stock Irrigation



Once started costs one cent per month. As simple as a wheelbarrow and as efficient as a Corliss engine. Information and instruction in plain terms. Prices on Ram or complete outfit by return mail. Address

IPRYCE W. BAILEY
Expert, Seneca Falls, N.Y.

Trade Mark Reg'd



LUMP JAW NOW CURABLE.

Surely, quickly and for good, FLEMING BROS., Chemists, St. George, Ont., have a remedy that quickly cures the most obstinate cases. Supplied by mail under a positive guarantee. Price, \$2.00. Valuable information and full particulars FREE.

DES MOINES INCUBATOR CO.

The BEST and the CHEAPEST

95 PER CENT. hatches are often reported by those who use these Incubators. One reason for this record is absolute uniformity of temperature in egg chamber. Correct instructions for operating; has fire proof lamp. A great mistake it would be to purchase an Incubator or Brooder without first getting a copy of our 148-page Catalogue. Send 3 cents for Illustrated Catalogue of Incubator, Brooder, Poultry and Poultry Supplies.

THE POULTER'S GUIDE, New Edition, 15c. per mail.

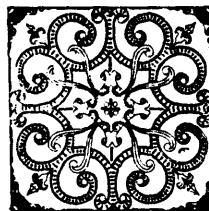
O. ROLLAND, Sole Agent for the Dominion, 24 St. Sulpice Street, Montreal.

LIGHTNING WELL MACHY
IS THE STANDARD
STEAM PUMPS, AIR LIFTS,
GASOLINE ENGINES
WRITE FOR CIRCULAR
THE AMERICAN WELL WORKS
AURORA, ILL. - CHICAGO - DALLAS, TEX.

You can be sure

of Permanent Beauty in your interior finish by using our splendid

Metallic Ceilings and Walls...



They suit any room—are economical—easily applied—fireproof and sanitary—and make the most handsome, longest-lasting finish you can find.

We will send an estimate, if you mail us an outline showing the shape and measurements of your ceilings and walls.

METALLIC ROOFING CO., Limited

1192 King St. West, TORONTO.

Horse Owners! Use

GOMBAULT'S



Caustic Balsam

A Safe Speedy and Positive Cure

The Safest, Best BLISTER ever used. Takes the place of all liniments for mild or severe action. Removes Bunches or Blomishes from Horses and Cattle. SUPERSEDES ALL CAUTERY OR FIRING. Impossible to produce scar or blomish.

Every bottle sold is warranted to give satisfaction. Price \$1.50 per bottle. Sold by druggists, or sent by express, charges paid, with full directions for its use. Send for descriptive circulars.

THE LAWRENCE-WILLIAMS CO. TORONTO

ASK FOR

Robertson's Paints

which are finely milled and skilfully mixed, therefore always BRIGHT, DURABLE and ECONOMICAL.

THE JAMES ROBERTSON CO., Limited
TORONTO



Belvoir Stock Farm

OFFERS SHROPSHIRE SHEEP of the highest type. This flock has won more prizes at Christmas fat stock shows than all the flocks of Canada and the United States combined. The flock is the final test. An extra lot of Shearling Rams, Imported Clydesdale Mares and Yorkshire Swine for sale.
R. GIBSON, DELAWARE, Ont.

BRANT STOCK FARM

OXFORD DOWNS

FOUNDATION STOCK selected from the best breeders in Canada and England. Two Imported Rams (First and Second Prize-winners at Toronto in 1898) at head of flock. 30 Choice RAM LAMBS and some EWE LAMBS for sale.

J. H. JULL & SON, } Breeders and Importers
Mount Vernon, }
Ontario.

MAPLE CLIFF STOCK AND DAIRY FARM

Ayrshires, Berkshires and Tamworths.

A number of young bulls, sired by Gold King 1887. 50 young pigs of both sexes.

R. REID & CO., Hintonburg, Ont.
Farm one mile from Ottawa. Street Cars to Farm

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.

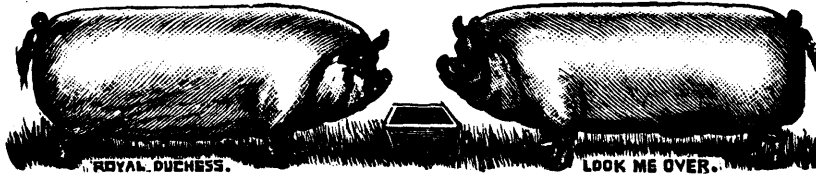
Wm. Butler & Son

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.



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.

Oak Lodge Herd of Large Yorkshires



J. E. BRETHOUR,

The Oldest Established and Largest Herd in America...

This herd has a uniform and fixed type, acknowledged by the best judges to be what the market demands. It has made a record of its own in the show rings, winning more prizes at the largest Canadian and American shows than all other herds combined. Parties wishing high class stock should examine this celebrated herd at the leading shows.

ALL STOCK FULLY GUARANTEED

BURFORD, Brant Co., 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 Pens 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.

MINING STOCKS

Bought and Sold
on Commission
by....

E. Gartly Parker

Mining and
Investment Broker

Member of the Standard Mining Exchange

12 ADELAIDE STREET EAST

Phone 1842

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

...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, - - - - - E. Ont

Elm Shade Farm

AYRSHIRE



CATTLE.

The head of the herd is Lord Sterling, 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. WYLLIE, Howick, Que., or 228 Bleury St., Montreal.

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

FARMING

VOL. XVII

OCTOBER 24th, 1899

No. 8

Dollar Book for One Subscription.

The feature of this week's Premium Talk is the new book, "The Life of Christ." This handsome work, containing 75 full-page, half-tone illustrations, is given free to any subscriber sending one new yearly subscription to FARMING.

The World's 1899 Wheat Supply

The United States Department of Agriculture has recently issued a bulletin in regard to the world's wheat supply for 1899. The bulletin is based chiefly upon estimates made by the Hungarian Minister of Agriculture, the well-known London grain-trade journal, *Beerbohm's Evening Corn Trade List* and by the *Bulletin des Halles*, published at Paris, France. As the measures in which the estimates are given are different the quantities are not strictly comparable, but they are as nearly so as they could be made without a knowledge of the average weight of the measure assumed for each country. The Hungarian and French estimates have in the bulletin been reduced to Winchester bushels and Beerbohms to bushels of sixty pounds, but as the former measure is smaller than the latter it follows that in any comparison the estimates figured on the smaller measure will appear larger than they otherwise would be.

The bulletin gives the estimates of the world's wheat crop for 1898 compiled by the United States Department of Agriculture by way of comparison with the estimates referred to for 1899, and setting aside minor differences and taking the countries which are included in all four of the estimates, we get for the world's supply the following totals :

	Millions of bushels.
Estimate Department of Agriculture, 1898.....	2,798
Estimate Beerbohm's Corn Trade List, 1899.....	2,393
Estimate Bulletin des Halles, 1899.....	2,489
Estimate Hungarian ministry, 1899.....	2,453 to 2,477

But some of these estimates for 1899 have not given the yield for some countries such as Japan and the Russian Trans-Caucasia. By adding the estimates for the countries left out in the above figures excepting Trans-Caucasia for 1898 to the figures for 1899 we get the following table :

	Millions of bushels.
Estimate of Department of Agriculture, 1898.....	2,867
Supplemented estimate of Beerbohm, 1899.....	2,540
Supplemented estimate of Bulletin des Halles, 1899.....	2,554
Supplemented estimate of Hungarian ministry, 1899.....	2,526

Comparing the estimates for 1899 with those of the same authorities for 1898, the reductions in the world's wheat crop appear to be as below :

	Millions of bushels.
According to Beerbohm.....	377
According to Bulletin des Halles.....	291
According to the Hungarian ministry.....	312

The Hungary Minister of Agriculture gives figures regarding the world's supply of other grains for 1899 as com-

pared with 1898, as follows : For rye, a deficit of 46,300,000 to 51,600,000 bushels ; for barley, a deficit of 94,500,000 bushels ; for oats, a deficit of 37,700,000 to 43,700,000 bushels, and for corn a surplus of 59,000,000 bushels.

In the crop circular for October issued by the U.S. department the following appears in regard to the American corn crop for 1899 :

"The average condition of corn on October 1 was 82.7, as compared with 85.2 last month, 82 on October 1, 1898, 77.1 at the corresponding date in 1897, and 81.9, the mean of the October averages for the last ten years. Of the 22 States having 1,000,000 acres or upwards in corn, 17 report some impairment of condition during September. Of the 5 reporting an improvement, Iowa, with an advance of 2 points, is the only one whose annual production exceeds its own requirements."

Transvaal War and the Hay Trade

Prices for Export Hay Advancing in Montreal.

Should the Transvaal war continue for some time it would not be surprising if prices for Canadian hay ran up to a pretty good figure. Already the influences of the war are beginning to be felt, and late reports from Montreal indicate a much better demand for hay for export. This, together with a good local inquiry, as will be seen from this week's market review, has caused prices at Montreal to advance 50c. to \$1 per ton during the past few days. The reported partial failure of the British hay and root crop would no doubt have caused a better export demand later on for hay from Canada, but now that war is on prices have advanced earlier than expected owing to the extra demand for the Transvaal.

The great drawback just now in shipping hay to England is the high rates for ocean freights. But still the hay continues to go forward, and if the demand keeps up it will take more than excessive freight rates to prevent business being done. Producers on this side will have to be content with a little lower prices to make up for the extra cost of transportation ; but if prices advance, as it is expected they will from present indications, enough extra will be paid to give our farmers good value for their hay over and above the extra freight charge.

It is estimated that the British Government will require at least 20,000 tons of hay for its military operations in Natal and the Transvaal, and it is altogether likely that Canada will be called upon to supply a large portion of this amount. A small cargo of Canadian hay has already been shipped to South Africa by way of Boston, and it is reported that vessels are on the way to Montreal to take out another cargo. While this is the position of affairs as regards the probable demand it will not do for our farmers to put too high a price on what they have to sell as it might tend to drive purchasers elsewhere. But with reasonable prices asked there is no reason why Canada should not supply a very large share of the fodder demand for the Transvaal war.

Grades and Pure Breeds at Local Shows

The letter from "Fairplay," which appears elsewhere in this issue, drawing attention to the practice at many local fairs of combining the grade and pure-bred classes in the same section in the prize-list is well worth considering by managers of such shows. There is nothing much to be gained by a breeder of pure-bred hogs competing in the prize-ring with grades of all classes, especially where the judge is not likely to be the best that could be secured. In the pure-bred classes at our large fairs all animals are judged as to their conformity to the breed type, though since the evolution of the bacon hog a change is noticeable in this particular, and breeders in all classes are endeavoring to have their pure-bred hogs conform to the bacon type as much as possible. If pure-breds and grades at the local shows were competing for a prize given for the best type of hog for bacon purposes, there should be no great injustice either one way or the other, but otherwise it would be better to have separate classes for each breed.

But the difficulty with most local shows is that there are usually not sufficient funds to provide separate prizes and classes for the various pure-breeds and grades and consequently they have to be combined, thus causing the difficulty referred to. This could be overcome to a very great extent by combining the local shows as suggested in last week's FARMING. This would give the fair management a larger amount of funds which it could divide in such a way as to give prizes for each of the different pure breeds of live stock that would make it worth while for breeders to compete for. Indeed "Fairplay's" letter, though evidently not intended for that purpose, furnishes a very strong reason for combining the small local fairs into larger and better ones. We do not think it would be the right thing to do away with grade classes at the local fairs, any more than we think pure breeds and grades should be placed in one class. But as we have already pointed out, we fail to see where sufficient funds are to come from to make prizes for each class unless our local fairs combine in the way we have indicated.

The Caring for Farm Machinery

If you have not already done so, take a little time at once and put all the farm machinery away for the winter. For this purpose a special building adapted for storing such machinery is best. If you have no such building make an effort to store the machinery in the barn, shed or under a roof of some kind. A building in which to store farm machinery can be built very easily and cheaply. Only last summer we visited a farm where a machinery building had been built after the following plan: Cedar posts about 10 or 12 feet long were placed in the ground about three feet, leaving about eight or nine feet above ground. These posts were set up about eight feet apart and a sufficient number of them to make a building of the required size. On these posts were placed scantling or planks for plates and on these a roof was built. The whole was boarded in with plain lumber put on perpendicularly. There was no flooring in it, the machinery being run in on the level ground. A building of this description could be built very cheaply and would more than pay for itself in one year in the saving that could be effected in the purchase of new machinery.

The expenditure for farm machinery is an important item in the management of any farm, and any farmer who thinks he can make his farming operations pay, and neglect to keep the farm machinery stored and in proper order will soon find out that he is very much mistaken. The amount of work that can be done on the farm by machinery is every year increasing. It is not so very long ago since

the self-binder, the hay-loader, the rack-lifter, the sulky-plow, and such like up-to-date machines were unknown on the farm. True some of these we have named have replaced older kinds, such as the self-binder, the reaper, etc., but a great many of them are of an entirely new kind and supply a place not before filled by any other machine. The tendency now is to lighten the hand labor on the farm and to have its place taken by machinery. This is along the right line and quite in keeping with the advancement that is constantly taking place in lessening the labor and cost of production of all goods. But with this advancement a new department of work, we might say, has become a necessity on every farm and that is the farm machinery department. A farmer can make money by giving special attention to this branch and having all the machinery on the farm specially cared for when not in use, just as he can by giving special care to his live stock. Sometimes it is not what we make but what we save that brings the balance on the right side at the end of the year.

Killing, Dressing and Shipping Turkeys

The dressed poultry trade with Great Britain is assuming large proportions. It is estimated that already this fall between 80,000 and 100,000 dressed turkeys have been contracted for for this trade. The opportunities for the expansion of this trade are almost unlimited, provided



Figure 2 shows the back of the bird with one wing twisted into position. The other wing should be treated the same way.

proper methods are adopted in fattening the poultry and in fitting them for shipment. Last week we gave some information as to the methods used in France for killing and dressing poultry, and herewith we reproduce, with illustrations from the last annual report of the Agricultural and Dairy Commissioner for the Dominion, the methods

ers on, report that where they have been properly prepared, cooled and packed, they have been landed in excellent condition and have fetched satisfactory prices. On the other hand, the majority of importers recommend that turkeys should be plucked and sent in cold storage chambers, but not frozen. Particularly in the London markets, as one dealer expressed it, "Turkeys with feathers on are things of the past." The following paragraphs of direct instruction have been prepared in the hope that they will furnish the information required by farmers and those who propose to export poultry.

FOR TURKEYS TO BE SHIPPED PLUCKED.

(1) Fast the birds for twenty-four hours to empty the crop and intestines. The fermentation of food in the crops and intestines will wholly spoil the birds. Cases are reported of turkeys arriving in England with the crops filled with Indian corn; they were so much decomposed as to be unfit for human food; and were a total loss.

(2) Give a small quantity of water just before killing. The birds should be kept quiet. Dealers say that if the birds are frightened or excited they will not keep well and the quality will be inferior.



Figure 3 shows how the wings are twisted on the back. See also Figures 2 and 4.

advised for killing, dressing and shipping turkeys from Canada to the British markets:

TIME TO SHIP.

The demand is usually good from about the 1st of December to the 1st of March. The reception of poultry in the British markets is affected by the condition of the weather much less now than formerly. Cold storage facilities in the several cities in Great Britain enable the handlers to guard against deterioration from mild or soft weather on the arrival of the birds.

For the Christmas trade, birds of large size command a relatively higher price per pound than small ones. Cock turkeys of the largest size should be marketed before Christmas. Hen turkeys may be sent from six pounds each upwards and the demand for them continues until March.

PLUCKED OR WITH FEATHERS ON.

There is still some difference of opinion among importers as to whether turkeys should be plucked or sent in the feather. Those who have received turkeys with the feath-



Figure 4 shows the front of the bird with one wing twisted into position

(3) Kill by "wringing the neck" and not by knifing or sticking. One dealer says the easiest and best mode of killing is by the dislocation of the neck. This manner of killing is generally adopted by English and continental poulterers. It is done as follows: Grasp the legs of the

bird in the left hand, and the head of the bird in the right hand, the back of the bird being upwards, and the crown of its head in the hollow of the hand. Hold the legs of the bird against the left hip and the head against the right thigh or knee. In this position strongly stretch the head, at the same time bending it suddenly backwards so as to dislocate the neck near its junction with the head. The bird is killed instantly. It may work convulsively for some time, but that should not stay the de-feathering, which must be proceeded with at once.



Figure 6 is the side view of the bird ready for delivery to a customer.

(4) The method of killing turkeys in Norfolk is recommended. It is as follows: The bird is hung up by the legs, the wings being crossed to prevent struggling. Next it is given a sharp blow on the back of the head with a stout piece of wood, which renders it insensible. The knife is then inserted into the roof of the mouth so as to pierce the brain, cutting it along the entire length. The bird is left hanging by the legs for a few minutes to allow the blood to drain out.

(5) Pluck at once while still warm. Feathers should be left on the neck for about three inches from the head, also a few feathers on the tail and tips of wings. Do not tear the skin in plucking; and do not under any circumstances dip the bird into water.

(6) Remove the intestines from the rear. Care must be taken not to break the gall bag. All the rest may be left inside.

(7) Twist the wings on the back of the bird. A string, which, however, should not encircle the body, may be used to keep them in place.

(8) As soon as the feathers are off, hang the bird up by the feet to cool. Do not lay it down or hang it by the head. The blood should drain towards the head and become coagulated there. One dealer says: "Lay the birds on their breasts on a setting board, pressing the rumps square, letting the heads hang down until the body is set, when the birds will always retain their plump shape."

(9) Cleanliness is necessary. The feet and legs of the birds should be clean also.

(10) The birds should be thoroughly cooled (not frozen);

and they should be cold through and through before being packed in cases.

(11) The cases should be shallow, only deep enough to hold one layer of birds. A size recommended is a case six feet long, by twenty inches wide, by from seven to eleven inches deep. The top, bottom and sides may be of lumber one-half inch thick, with the ends and the strengthening piece in the centre one inch thick.

(12) Pack in any one case only birds of nearly the same weight, graded to within two pounds. In no case should any bird be lighter than the lightest weight, or heavier than the heaviest weight, marked on the package.

(13) Pack the cocks and hens in separate cases.

(14) Mark the cases at both ends plainly. The marks at the top of the left-hand corner of the end should show the number of birds, and whether cocks or hens. The marks at the top of the right-hand corner of the end

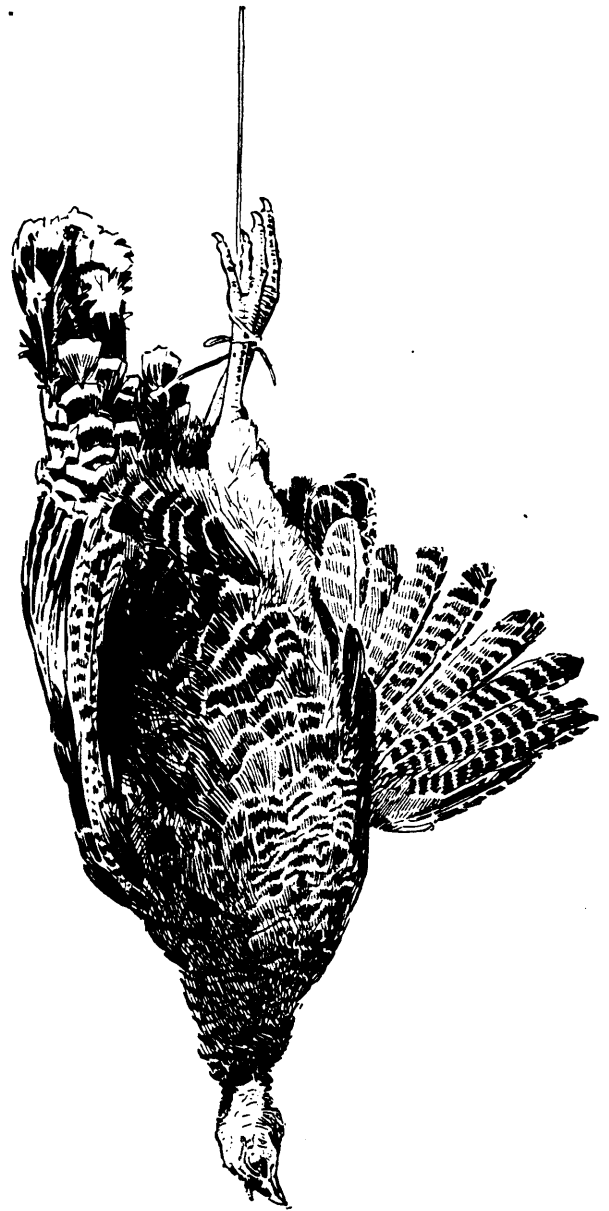


Figure 8 shows a bird with feathers on, thoroughly cold and ready to be packed, if to be shipped that way.

should show the weight of single birds, the gross weight, the tare of case, and net weight of birds. For example:

12 T., Cocks	10 to 12 lbs.
Gross weight	156 lbs.
Tare	24 lbs.
Net weight	132 lbs.

T. Stands for turkey;
F. For fowls;
G. For geese;
D. For ducks.

(15) Wrap every bird neatly in paper. The head of each bird should be wrapped with a quantity of thick paper to absorb any blood.

(16) Spread a small quantity of woodpulp in the bottom of the case. If that be not obtainable, use a small quantity of straw on the bottom of the case. The straw must be quite dry and clean.

(17) Put paper on the bottom and top of the birds to keep them clean. A small quantity of woodpulp or dry clean straw may be put on top, directly under the cover.

(18) Pack the birds with backs down, with heads at one side.

(19) Put from twelve to twenty-four birds in a case. Every case should be packed quite full and close, to prevent damage from knocking about inside during transit.

(20) The foregoing directions are only for birds which are to be kept cool continuously. They cannot be shipped safely as ordinary cargo.

(21) Do not export any old, tough birds.

(22) Every bird should show a good, plump, white, broad breast.

FOR TURKEYS TO BE SHIPPED IN FEATHER.

A few of the importers in Great Britain still speak well of turkeys which they have received with feathers on.

The following directions are suitable for that method of shipment:

(23) The birds should be fasted at least twenty-four hours; and all other directions in regard to the keeping of the birds quiet and clean are equally applicable and important.

(24) For killing, the fowl should be suspended by the legs, when an incision by a sharp knife should be made in the roof of the mouth. The cutting should be made lengthwise, across, and deep enough to reach the brain. This is held to be a painless method of killing, and no evidence of mutilation can be seen on the outside. Care should be taken to prevent the feathers being soiled by blood.

(25) The head should be wrapped in thick paper to absorb any blood and to prevent it from taking on a dull and damaged appearance.

(26) Immediately after killing, the birds should be hung up by the feet and left to become quite cold before being packed. Such birds are not to be drawn. After they are thoroughly cooled through and through they should be packed in air-tight barrels or boxes. When they have been cooled, the feathers help to preserve them.

(27) The head should not be put under the wing, but should be laid in the middle of the back, where there is the least amount of flesh.

(28) The birds should be sorted according to size, and the cases should be marked on the ends indicating the number of birds, whether cocks or hens, and the range of weight.

Wintering Cattle and Finishing Them on Grain for the British Market*

By George Murdie, Fordwich, Ont.

I may say that I have been engaged in the cattle business for over twenty years, with a fair amount of success. Sometimes my profits were good, and sometimes not so good, but I am thankful to say that I never yet lost on a bunch of cattle. I buy all my cattle, but before I go out to buy I make up my mind what kind I am going to buy, whether steers or heifers. It won't do to mix them, you must have one kind or the other. I try and get them of a certain weight, as nearly as possible about 1,000 to 1,100 or 1,200 pounds each. I think it bad policy to go out and buy anything you come across because you think it cheap. I want to have my drove as even in shape and weight as

* A synopsis of an address prepared for Farmers' Institute meetings in Ontario, condensed for publication by the Superintendent.

possible. When buying I stand first to one side of the animal. I want them low-legged, long-bodied, with hams coming well down, and brisket well out in front of fore legs, clean in the neck and fine in the head, with a dish face. Then I walk around in front and see that they are broad between the eyes, broad over the shoulders, with ribs well rounded, and wide between the forelegs. Then I go around behind them, and see that they are wide across the loins and over the hips, with hind legs well apart and joined together well down.

I do not expect perfection in every one, but I come as near the ideal I have mentioned as possible. I like the Shorthorn grades better than any others, but will take any breed if of the right shape. In color I like roan, red or spotted red and white, but will take almost any color if they please me every other way. I begin to buy in September, and try to get them as fat as possible. I think I can buy fat cattle at that time of the year and later on cheaper than I can put it on in winter. About the last week of October, or whenever I think the flies are gone, I have them dehorned. I use the clippers, as I prefer them to the saw. I never stable the cattle until I think winter is coming on. If there comes a little early snow I draw out some kind of fodder for them, but as soon as I think the weather is too cold I put them in for good. I tie them up; I think they do better.

About winter feeding I would just say that I would never attempt to give you a ration and say that it was the cheapest for any one of you to feed. I don't know your circumstances, nor what kind of feed you have got. Sometimes one kind of feed is dear and another cheap, and next year it may be the very opposite. Sometimes a farmer may have some kind of fodder that is unsaleable but that might do very well when mixed with some other kind of feed for fattening cattle. I may say that I scarcely ever feed the same ration two years in succession. I cut all the feed. I feed and water regularly. I think this is a very important point. You will put on more fat by feeding and watering regularly than you will with the same feed if you are irregular. And the great secret of success nowadays is to put on the greatest amount of fat with the least amount of feed. A farmer cannot expect to make his crops pay unless he puts in his seed at the proper time, reaps at the proper time and does everything else at the proper time, neither can a farmer expect his cattle to thrive unless he attends to them at the proper time. If you have ever noticed it, cattle become very restless when not fed at their usual time, and if cattle are restless they will not thrive well. I feed the same from the time they go into the stable until they go onto grass. I like to keep them gaining all the time. I believe when cattle are standing still or going back you are losing money just the same as if you kept \$500 that you did not need in the house instead of putting it in the bank at interest.

I like to have them go on grass in as good condition as many of the cattle that are fed for the May market. Now, about pasturing, I would say, in the first place, have good fences. If ever cattle get started to jump there is going to be trouble, especially if they are heifers. I give my cattle from two to two and a half acres each of pasture according to the season, and am careful not to turn them on when the grass is wet for fear of bloating. It is very important that they should have water at all times. Running water is the best. If it has to be pumped, don't trust to the boys nor yet to the windmill. Be there every day and be sure that everything is in working order. Feeding cattle should have free access to salt at all times. I think, also, shade a very important thing.

I fed forty-one heifers in 1898. They were fed in three different places with different rations, and I will give you the different rations also the weights on Nov. 27th, Feb. 1st, May 6th, and July 15th:

Rations per day per head for lot No. 1.		Cents.	
8 lbs. clover hay at \$5 per ton	2.0	
6 " straw " \$2 " "5	
3 " chop oats " \$16 " "	2.4	
14 " turnips " 7c. " bus	1.6	6.5

180 days at 6.5 cents per day = \$11.70 per head.

WEIGHTS OF CATTLE IN LOT NO. 1.

No.	Nov. 27. Lbs.	Feb. 1. Lbs.	May 6. Lbs.	Gain from Nov. 27 to May 6. Lbs.
1	900	980	1055	155
2	850	960	1025	175
3	940	1000	1080	140
4	950	1105	1155	205
5	915	1010	1125	210
6	935	1035	1110	170
7	950	1060	1155	205
8	885	970	1065	180
9	940	1050	1070	130
10	1030	1100	1145	115
11	930	1000	1070	140
Average	929	1024	1096	167

RATION PER DAY PER HEAD FOR LOT NO. 2.

Lbs.	Cents.
6 clover hay at \$ 4 per ton	1.2
8 straw " 2 "	.8
3 chop oats " 16 "	2.4
2 bran " 8 "	.8
11 mangels " 6c. per bus	1.1
Oil cake	.2

6.5 per day.

Total cost for 189 days at 6.5 cents = \$11.70 per head.

This lot were only fed twice in the day, at 7 o'clock in the morning and 5 o'clock in the evening.

WEIGHTS OF CATTLE IN LOT NO. 2.

No.	Nov. 27. Lbs.	Feb. 1. Lbs.	May 6. Lbs.	Gain from Nov. 27 to May 6. Lbs.
1	1060	1135	1250	190
2	1025	1145	1235	210
3	1045	1120	1200	155
4	1140	1200	1300	160
5	1040	1095	1225	185
6	1035	1125	1200	165
7	1080	1140	1255	175
8	1080	1090	1225	145
9	1080	1140	1255	175
10	1035	1120	1285	250
11	1080	1140	1235	155
12	1130	1175	1300	170
Average	1069	1135	1247	176

RATION PER DAY PER HEAD FOR LOT NO. 3.

Lbs.	Cents.
10 Hay at \$4.00 per ton	2.0
5 Straw at 2.00 " "	.5
3 Bran " 8.00 " "	1.2
3 Oat chop at \$14.00 per ton	2.1

Total cost for 180 days, at 5.8 per day \$10.44 per head.
Oil cake, sulphur and salt per head .. 1.36

Total cost per head for wintering \$11.80

WEIGHTS OF CATTLE IN LOT NO. 3.

No.	Nov. 27. Lbs.	Feb. 1. Lbs.	May 6. Lbs.	Gain from N v. 27 to May 6. Lbs.
1	930	990	1030	100
2	915	1010	1105	190
3	990	1030	1100	110
4	1060	1160	1200	140
5	1000	1070	1125	125
6	1080	1175	1225	145
7	1000	1075	1165	165
8	1020	1075	1175	155
9	970	1050	1125	155
10	1120	1200	1285	165
11	1060	1120	1280	220
12	1040	1140	1240	200
13	1150	1165	1250	100
14	1150	1150	1200	50
15	1100	1180	1285	185
16	1080	1135	1235	155
17	1120	1195	1285	165
18	1100	1170	1285	185
Average	1043	1115	1194	151

AVERAGE WEIGHT OF THREE LOTS.

Nov. 27.	Feb. 1.	May 6.	Average gain.	July 15.	Average gain from Nov. 27 to July 15.
1023	1096	1186	163	1300	277

I paid \$12.00 per head for wintering Lots 1 and 2. Lot 3 I wintered myself. So you see that 23 head of the 41 cost 20c. per head more than those I fed myself. Now I am going to tell you just exactly what profit I made on these cattle. Some people tell me that I am foolish to tell what I make on my cattle. Well, my answer to that is that my object is not alone to make money. If I can do my brother farmer any good by giving my experience I will do so cheerfully and I would like if you would do the same with me :

Average cost per head of 41 heifers	\$33.00
I allow myself for buying per head	1.00
Fall pasture	1.20
Wintering	11.80
Summer pasture	3.50
Interest on money invested in heifers and feed	2.00
Total cost on 15th July	\$52.50
Weight on July 15th, 1,300, at 4 1/2c. per lb.	58.50

Clear profit..... \$6.00 per head or..... \$246.00
Less 20c. per head on Lots 1 and 2..... 4.60

Net profit on the whole lot..... \$241.40

Live Stock Interests in British Columbia

Special Report of the New Westminster Royal Show

Trade in pure-bred live stock in British Columbia has received considerable attention from Ontario breeders recently. During the past year or two several carloads of pure-bred stock have gone to that province from Ontario, and it looks as if a considerable trade could be worked up in this particular. The reduced rates secured from the railways by the Dominion Live Stock Associations in the transportation of pure-bred stock have made it possible to get stock to the Pacific Coast at a reasonable cost. And, therefore, Western breeders are making laudable efforts to replenish and build up good herds.

No better idea of the nature and kind of live stock in a country can be secured than that shown by the exhibits at the leading fairs. The Provincial, or what is called the Royal Show of British Columbia, was held at New Westminster on Oct. 3-10, and the following report of the show, sent us by an Eastern breeder who was there will be found of interest to Ontario breeders in showing what is being done in the way of developing the live stock interests on the Pacific slope. The Fair was formally opened by Hon. Sydney Fisher, Dominion Minister of Agriculture, who was present by special invitation :

Live Stock.

A good showing was made in nearly all classes and a decided improvement from former years. In Jerseys the entries were large, over one hundred animals being shown. Shorthorns were also larger than usual. The cattle were judged by R. Gibson, of Delaware, who gave general satisfaction. Three carloads of pure-bred stock have been shipped out to British Columbia by Wm. Butler & Son, Dereham Centre, during the past year, and their influence was easily seen in the show-ring. Mr. James Bray, who judged the sheep and swine, said a big improvement had been made in these classes from last year. While an improvement has been made and a way made whereby British Columbia breeders and ranchers can get good stock out now with little expense, yet it is to be hoped the improvement will still continue. While there were some good animals shown yet the majority shown have no right

to be in any show ring. British Columbia breeders have a future ahead of them if they only improve their herds sufficiently. The writer met a number of American buyers, and they are men who pay good prices if they see what suits them. They also have a market at home now and for all time to come.

What is needed most in the improvement of live stock in British Columbia are some good bulls and cows from beefing strains, and what is asked for most is a good milking strain of Shorthorns. In sheep it seems that the Down breeds will take the lead. Owing to wet, damp climate the long wools are not so well adapted. In swine they require more length and size in all classes. Swine industry should pay well in British Columbia. Live pork is now selling for six cents per pound.

Horses.

I think a person would be justified in saying that with the exception of a few light horses owned in British Columbia and the horses shipped to the fair from outside the province that the horse show was a pretty poor affair. There needs to be a general revival in the horse trade in the western province. Light horses made the largest showing; heavy horses made a light entry. Two very good standard-bred stallions were shown that are owned in British Columbia. King Patchen, a Vancouver horse, is a beautiful brown with white feet, having good carriage and action. He won first and championship in Standard-bred class; Wilkinson's old-timer Coloquy had to be content with second. The former horse also won first for stallion and five of his get.

In coach-horses Rellington's Pride, 1021, an imported horse owned by McLaughlin, of Calgary, won first place, which, judging from his fine appearance, action and breeding, he was fairly entitled to.

In the Roadster class McLaughlin again won with Bob Kirk, 1st for stallions three-year-old and upwards. Although the smallest in the ring, yet his speedy, free-going action made him an easy winner.

The same firm also won on Nancy G. for best driver.

In the heavy draft classes the only good heavy stallion shown was an imported shire stallion Rising Sun, 12165, shown by the above-mentioned firm from Calgary. This horse won championship and silver cup for best heavy horse shown. He is a very superior animal, and is fit to go in any show-ring. He weighs over a ton; is a beautiful brown. He is a good actor in the ring, has plenty of quality, is clean-limbed, and a horse which is hard to fault. There was only one other entry in the shire class.

In the Clydesdale class not a single stallion was shown. Several mares were out. The winner in aged class being a beautiful blocky bay mare, shown by Butler & Sons, Dereham Centre, Ont. This mare was bred by Whiteside Bros., of Innerkip, and sired by Self Esteem. She also won first championship for best heavy mare, and she and her mate won first for best heavy draft team.

In Reiche class, H. F. Page, of Mission, showed a very nice brown two-year-old stallion, which won first. The same competitor also won for the best brood mare.

Little more can be said about the horses shown at the Royal Fair, other than that nearly 90 per cent. of the money offered for races was for farmers' races, and that there is not even a suitable ring provided for exhibiting horses. There was also great lack of knowledge of how to handle and show horses by the people who did exhibit. It would cause comment by the average schoolboy in Ontario to see men trying to trot horses that would make very good harness horses if properly trained. Possibly the association is partly to blame for not offering prizes for such instead of giving all the prizes for green trotting races. The writer would very much like to see an improvement in the horse exhibit for 1900.

Cattle.

SHORTHORNS made a good exhibit. In this class some excellent animals were shown, but several scrubs also appeared in the aged class.

In 2-year-old bulls first went to W. H. Ladner's, the only one shown.

In yearling bulls first went to J. Sampson on Surveyor, 29113, a very neat meaty red bull, bred by A. W. Smith, of Maple Lodge, Ont. This bull also won sweepstakes.

In bull calves 1st and 2nd prizes went to Mr. Ladner.

In aged cows Ladner won 1st and 2nd on Daisy Bell and Delta.

Daisy Bell was bred by W. H. Ladner, and shows good quality, but is a little small and rough. Sweepstakes also went to this heifer.

Third went to W. J. McGillivray, Sumas, on a red cow, showing considerable dairy type and also very smooth. Only one 2-year-old was shown, which went to W. H. Ladner.

Yearling class—S. Mitchell, North Arm, won first on a red heifer bred by himself; 2nd and 3rd went to Ladner, which were a little coarse. In heifer calves Mitchell took 1st and 2nd.

AYRSHIRES made a poor showing; only two exhibitors showed, McCullough, of Westminster, and A. C. Mills, of Chilliwack. Prizes were pretty evenly divided.

GUERNSEYS were a light exhibit, only two exhibitors competing. Mr. E. A. Kipp again secured 1st with his bull from Butler & Son, and also 1st on young stuff, while Geo. Beebe, of Agassiz, secured the most of the prizes on females. No Devon, Galloway and Polled Angus were shown, and only three Red Polls.

HEREFORDS.—Some very good specimens of this breed were shown by Mr. Kirkland of Ladners, who had this class all to himself.

JERSEYS—Made a very large showing, 105 competing. Some excellent animals were shown. The principal exhibitors were: J. S. Smith, Chilliwack; Mr. Balfour, Langley; G. Goudy, Ladners; A. J. Street, Chilliwack; W. J. Elliott, New Durham, Ont.

In the aged bull class ten animals were led into the ring. After some consideration on the part of the judges the 1st went to A. J. Street for Liverpool Boy, which won first the two previous years; while 2nd went to R. Balfour and 3rd to Wells & Sons, of Chilliwack, while Mr. Elliott's Stoke Pogis, a bull which won first in Toronto, 1898, was left out, and some thought the last-named bull was entitled to first place.

In the two-year-old class only two animals were shown. A hull lately imported by J. S. Smith from Mrs. Jones of Brockville, won 1st, and 2nd went to W. J. Elliott, of New Durham. The yearling and calf class made a large showing and prizes were pretty well divided.

Cow class, 3-year old and upwards, 9 cows competed, all of which were a good lot, and several of them were good enough for a first place. The awards were finally placed. Mr. Street first with Queen of Summersay, Mrs. J. S. Smith second, Lilly May of Brockville, and 3rd to E. Goudy; while the first prize cow of 1897 and '98 was left without a place.

In two-year-olds 10 competed, 1st went to J. S. Smith on a beautiful heifer showing a very fine udder, Jenny la Blanche. This heifer was considered to be the best female shown, and had she been in Toronto she would certainly have taken a place; Mrs. Smith was the breeder.

In yearlings 8 were out. 1st went to A. J. Street with a light fawn heifer sired by Liverpool Boy; 2nd to J. S. Smith with heifer imp. from Mrs. Jones; 3rd to J. S. Smith. In heifer calves 4 were shown, which were an uneven lot; 1st went to J. S. Smith, 2nd to A. J. Street, 3rd to J. S. Smith.

For best bull and four females, four herds competed. 1st went to A. J. Street, having in his herd 1st bull, 1st aged cow, 2nd prize yearling, 3rd prize 2-year-old, 1st prize cow 1898; 2nd prize herd went to J. S. Smith.

Four females, get of one bull, 1st, E. Goudy, Ladners, which were a fine lot, consisting of four yearlings; 2nd went to J. S. Smith.

HOLSTEINS.—This class made a good showing in the cow classes, but the bulls were a poor lot. H. F. Page, of Mission, and McLeod & Mitchell, of Lulu Island, were the

principal exhibitors. Mr. Mitchell showed a very fine aged cow, which won first. H. F. Page made a good second, which cow also won test for most milk. Mr. Page also won herd prize and 1st and 2nd prize for four animals the get of one bull.

Sheep.

Mr. James Bray judged the sheep to the entire satisfaction of all. He reports a big improvement in sheep from last year. More sheep shown and better quality.

SHROPSHIREs made a good showing. Some good animals were exhibited; as in other classes several had been brought in from Ontario. Two exhibitors, Mr. E. A. Kipp, of Chilliwack, and Wash. Grimmer, of Renche Island, were out. In aged rams only one competed, which went to Grimmer. Shearling rams made a good showing. Mr. Kipp won on an imported ram, and also 2nd went to a B.C. bred ram, while 3rd was given to a ram lately imported from Mr. Hanmer by Grimmer. In aged ewes Kipp again won on an imported ewe from Campbell, and one bred by himself; 2nd went to Grimmer to a pair lately bought from Hanmer. In shearlings, 1st went to Grimmer on a pair of Hanmer ewes, and 2nd to E. A. Kipp. Pen prize, one ram and four ewes, went to E. A. Kipp.

OXFORDS.—Messrs. Shannon Bros., of Cloverdale, were the only exhibitors in Oxfords. They were out with a nice flock. They had lately got a ram lamb from Ontario, bred by Messrs. J. H. Jull & Sons, Burford, which won in Toronto, and which was much admired by the judges and visitors. Altogether they had a flock consisting of 21. They are wanting more from Ontario.

SOUTHDOWNS were exhibited by W. R. Austin and J. T. Wilkinson, of Chilliwack. The latter has a nice flock of well-bred sheep. He has used several imported rams, and has now the ram which John Jackson & Sons imported, and which won first in Toronto, 1898. He won all the firsts, and part of the seconds.

COTSWOLDS.—Mr. Richardson, Render Island, B.C., was the only exhibitor in this class. He showed nine—one aged ram, one shearling and ram lamb, four aged ewes, and two ewe lambs. One aged ram and aged ewe were bred in Ontario.

LEICESTERS were quite a strong class. W. R. Austin, of Supperton, and Geo. Beebe, of Agassiz, exhibited. G. W. Beebe, of Agassiz, secured 1st on shearling ram, which was bought from Wm. Laidlaw, Guelph. The balance of firsts went to W. R. Austin, who had imported several from A. W. Smith, of Maple Lodge, Ont.

In LINCOLNS R. C. Wells & Sons, Chilliwack, were the only exhibitors, but had a fine flock consisting of three rams and twelve ewes. A noted aged ram was shown by them, bred by Gibson & Walker, Dunfield, Ont. They also showed an extra fine ram lamb bred by the same firm, and one pair of aged ewes bred by Grimmer; the balance of flock was bred by exhibitor.

In HORNED DORSET Mr. Geo. Beebe made a very creditable showing, having imported several from R. H. Harding, Thorndale, Ont. He secured most of the firsts.

Attention is being paid to wool-bearing goats in British Columbia. Mr. Banford had an exhibit which attracted much attention. This industry seems to be a paying one across the border. Kid sells for more than mutton, and the wool is worth fifty cents per pound, and the skins sell for \$8 to \$10 each. Whether they will pay or not in British Columbia remains to be seen.

Pigs.

The entries were larger than formerly, and some fine specimens of the breeds were shown. Berkshires made a good showing. A fine boar, Tom Lee, was shown, which was lately imported from G. Green, and which won 2nd in Toronto. Messrs. Shannon Bros. have imported several from Ontario, and have a nice herd of Berkshires. They showed a boar under one year, bred by R. Snell, which they imported this last season. He is a fair pig, but has poor ends, lacks some in the middle, and is undersized. They imported this one to head their herd, but, not being satisfied with him, they commissioned Mr. W. E. Butler

to buy one in Toronto, and Tom Lee was selected, which won championship for best boar in British Columbia.

Yorkshires made a light exhibit, and were shown by H. F. Page, Mission. Tamworths made a creditable showing. Mr. W. J. McGillivray, of Sumas, and Geo. Beebe, of Agassiz, were the principal exhibitors. Mr. McGillivray got 1st on aged boar yearling and on boar under twelve months and under six months, and one aged sow. Beebe won balance of 1st prizes.

Duroc Jerseys made the largest exhibit, and some extra fine specimens of the breed were out. The exhibit in this class would compare well with Toronto. Mr. E. A. Kipp had an extra fine lot, all of which were bought of Butler & Son, Dereham Centre, Ont. Mr. J. S. Smith also had some fine pigs, and won one 1st, while the balance went to E. A. Kipp.

Suffolk and Essex were a light exhibit, the majority being shown by J. Maynard, Chilliwack.

Chesters also made a large show, and which were exhibited by Jos. Thompson, Sardis, and W. R. Austin, Supperton. Mr. Thompson won most of the prizes.

In Poland Chinas Geo. Banford, Chilliwack, brought out a fine herd, and won the bulk of the blues. Mr. Banford has imported the most of his stock from the United States, and if anything it is a little on the short side for Canadian trade.

Will Wheat Run Out?

The Pennsylvania Agricultural Experiment Station has been testing the more promising new varieties of wheat in comparison with older and standard varieties since its establishment in 1887 and has recently issued a bulletin which has the following data in regard to the above subject:

"On the limestone soils of the State, where proper cultivation and fertilization are given and due regard had to the selection of the seed, a variety of wheat should not run out. Where the soil, cultivation, manuring and seed selection are not the best, it will pay a farmer to change his seed occasionally. Taking the average of the five varieties tested ten years on the Station farm for the first and last half of the period, we get the following:

	Grain per acre. Bushel.	Straw per acre. Pounds.	Weight per bushel. Pounds.
5 years, 1890-94.....	30.94	3937	62.10
5 years, 1895-99.....	30.24	3447	63.01
Difference	-.70	- 490	= .91

For the five varieties tested nine years, omitting the fifth year, we have:

	Grain per acre. Bushel.	Straw per acre. Pounds.	Weight per bushel. Pounds.
4 years, 1890-93.....	29.57	3760	61.55
4 years, 1895-98.....	30.50	3417	62.76
Difference	+ .93	- 343	= 1.21

Taking the correct average for the ten varieties, we have:

	Grain per acre. Bushel.	Straw per acre. Pounds.	Weight per bushel. Pounds.
First period.....	30.33	3858	61.86
Second period.....	30.38	3434	62.90
Difference	+ .05	- 424	= 1.04

It would seem from the above that there has been no tendency in the varieties to run out, but the work will have to be continued through a longer series of years to enable positive conclusions to be drawn."

CORRESPONDENCE

Draw the Line on Grades

To the Editor of FARMING:

The annual fairs have passed into history again and the country still shows prosperity and progress. The swine industry is one branch of agriculture that is making rapid progress especially during the past year, and the result is that a large number of farmers have purchased many pure-bred herds of different varieties and at fancy prices. Some have fine herds of Berkshires, others have Tamworth, Jerseys, Yorkshires, Chester Whites, etc., and in fact nearly every distinct breed may be found in its purity in the county of Essex. These men have all invested a large amount of capital, time and labor; consequently, it is my humble opinion that they should be allowed a free hand to gather whatever profit and honor there may be in the business.

But we find the present conditions of the show-ring very unfavorable for them, simply because there is no distinct line drawn between the pure-bred and the grade hogs. The judges are not at liberty under the conditions to make any distinction, and in many cases under my observation the honors of the pure-bred animal have been given to the grade animal because he possessed a huge carcass.

My only object in bringing this matter into print is to call on the members of the Swine Breeders' Association to take immediate action in this important matter. Let us draw the line on grades. For my part I have decided not to disgrace my herd at these little fairs by competing in size only with every pig that is black.

The breeders should see that Government money is not thrown away in this manner. This practice will destroy what the Government has been for years endeavoring to build up, and let us hope that the agricultural press will deal strongly with such illegal work. I suppose the officials are not aware that the system referred to is carried on extensively at the rural shows.

Essex Co., Ont.

FAIRPLAY.

The Ottawa Milk Test

To the Editor of FARMING:

With your permission I desire to make a short explanation regarding the milk test lately held at the Ottawa Fair. This test was arranged for by the Canadian Holstein-Friesian Association, which furnishes one-half the prize money. This prize money was granted on condition that the awards should be made on the basis of the largest production of total solids. The same rules prevail as at Toronto, and if you will refer to the Toronto tests of 1894-5-6-7-8-9 and the Ottawa tests of 1897-8 you will find that the awards were made on the above basis, *i.e.*, the cows producing the most total solids were the winners. You will also observe that this year, in spite of my protests on behalf of the Holstein-Friesian Association to the effect that the rules had not been complied with, the Ottawa Fair management has persisted in making the awards on the basis of a scale of points to which the H.-F. association would never have agreed. I endeavored to obtain the figures of each cow's production from the secretary and the gentleman who conducted the test, in order to file a formal protest, but could not obtain them. Under the circumstances I consider that my cow Queen Dekol 2nd has been robbed of third place in the test, which was rightfully hers according to the rules. Her performance was so creditable under the circumstances that I should like to say a word or two in regard to it. Queen Dekol 2nd reached Ottawa from London on Sunday evening after nearly 48 hours on the road, and so had only two days to prepare for the test in competition with cows that had been resting quietly in the Ottawa stables for a week previous to her arrival. She is only four years old, and all the cows which were placed above her are mature cows. It is worthy of note that she was only two-hundredths of a pound behind the winner, and was ahead of both the second and

third prize cow in solids not fat, but owing to the late arrival of my herd she had not got settled and varied considerably in butter fat. Of course no one can blame Mr. Gilroy for taking the prizes awarded to him, and he was quite willing to do the fair thing, for he offered to pay me whatever prize money was properly due my cow according to the rules, if the published figures showed that she had exceeded any of his in total solids.

Thanking you for taking up so much of your space, I remain,
Very truly yours,
G. W. CLEMONS.

St. George, Ont., Oct. 12, 1899.

Operating a Farm Dairy
Pasteurizing Milk and Cream: A Simple Cold Storage Room.

To the Editor of FARMING:

I received your request for a description of my dairy and method of pasteurizing milk. We pasteurize milk for a bottled milk trade and cream for butter-making, and for a sweet cream trade in town four miles distant.

Now, as writing articles for publication is not in my line, you will, no doubt, have to rebuild this, but I will try and give you an idea of how I am working my dairy.

We have silos, a modern stable with cement floor, good light and ventilation; also a large supply of water elevated by wind power. I might say right here that a good supply of water is absolutely necessary to the success of a dairy run after the fashion of mine, as we do nearly all the cooling by water without ice. You must remember that cooling milk or cream which has been pasteurized is very much different from milk as drawn from the cow, taking much more time and more cooling material.

There are various ways of pasteurizing milk, perhaps mine is not the cheapest, but it has the merit of being very simple. We put the milk in a vat surrounded by a thin sheet of water into which a steam pipe is placed connected with a steam syphon, and allow the steam to run into the water until the temperature of the milk reaches 156 degrees. We allow it to remain at that temperature for twenty minutes and then cool by letting cold well water run around it for a couple of hours which reduces the temperature to 60° F., when it is bottled, crated, and placed in the cold storage in connection with the dairy house.

The demand for this pasteurized and bottled milk is the best proof of its superiority, as our sales, without any special advertising, have increased in six months over two hundred and fifty per cent.

The advantage of pasteurizing cream for butter-making cannot be too strongly urged, as it is the only practical way of arresting the growth, or more correctly, the multiplication of the injurious bacteria which are present to a greater or lesser degree in milk or cream. Now we think, and also the judges at the only fair at which we exhibited think (for they awarded us three first prizes on as many lots of butter) that our butter made from pasteurized cream is superior to butter made in any other way. Not that we are better butter-makers, but because we kill the objectionable bacteria by 156 degrees of heat, thus enabling us to keep the cream for several days in the same condition in which it comes from the separator. Then by adding a starter made from pasteurized skimmed milk which is allowed to stand in a warm place for a few days until sour, or by adding some of the butter milk from the preceding churning, we are sure of the right flavor every time. If pasteurized cream is kept at a temperature of 40 degrees it is not at all necessary to churn but once a week.

Now for the benefit of your readers I will describe our cold room, which for cheapness and simplicity is all that can be desired. First, a good, strong stone wall 16 feet square and 6 feet high, on top of which are laid sleepers sufficiently strong to hold up fifty tons of ice. On top of these sleepers put a plank floor covered with galvanized iron, soldered together so that it will not leak, and allow the iron to come up on the sides six or eight inches, form-

ing a pan. Have the floor slant a couple of inches, and at the low side have a waste pipe leading into the cold room below. Under this waste pipe place a large barrel or vat, and you have it full of continually changing ice-water from spring till fall. This is very convenient for cooling cream by having the cream in long, deep cans and set into this water. The cellar or cold room under the ice maintains an even cool temperature the entire summer, and keeps the butter hard and cream sweet as long as necessary.

The storage-room for the ice above the cellar should be made twelve feet high, double-boarded, and papered in and outside of the studding, thus forming an air space, which is very essential. The ice may be covered with saw-dust in the usual way.

We use a Russian turbine separator, which for effective work and simplicity of operation is perfection itself, and does not give the least trouble or expense for repairs.

If you do not think it out of place I would like to say a few words about an ensilage cutter and elevator made by the Wilkinson Plough Co., of Toronto, which I got this fall. It just simply marks a new era in the filling of silos which heretofore was laborious and uncertain as to the working of the old machines, but with their pneumatic elevator we can get our men and keep them at work from morning till night without any stops or breakdowns, so common when we used the sprocket chain elevators.

Hoping this may be of use to some of your readers, I remain,

Yours truly,

JAS. D. TRUESDELL.

Spring Valley, Ont., Oct. 16, 1899.

Grain Competition for Farmers' Boys and Girls

To the Editor of FARMING :

The following points are to be observed by those who send large heads of grain in the competition for the prizes offered by me. The prizes are as follows :

Oats.		Wheat.	
First prize.....	\$20	First prize.....	\$20
Second prize.....	10	Second prize.....	10
Third prize.....	5	Third prize.....	5
Fourth prize.....	4	Fourth prize.....	4
Fifth prize.....	3	Fifth prize.....	3
Sixth prize.....	2	Sixth prize.....	2
Seventh prize.....	1	Seventh prize.....	1
Eighth prize.....	1	Eighth prize.....	1
Ninth prize.....	1	Ninth prize.....	1
Tenth prize.....	1	Tenth prize.....	1
Eleventh prize.....	1	Eleventh prize.....	1
Twelfth prize.....	1	Twelfth prize.....	1
Total.....	\$50	Total.....	\$50

The whole of each lot of 100 heads should be selected from one variety grown in one field ; and only from a crop which has given a large yield per acre.

I shall want every competitor to furnish from the same crop 10 (ten) heads with the smallest number of seeds per head which he or she can find. But the number of seeds in the small heads will not be considered in making the awards.

Each lot of one hundred large heads of grain is to be put in a small cotton bag, securely tied, and addressed : Professor Robertson, Department of Agriculture, Ottawa, Ont. They will be carried free by mail.

Each lot of ten small heads is to be put in a separate package, either of cotton or stout paper, and addressed in the same way.

A slip of paper is to be put inside each bag or package giving :

- (1) The name and address of the collector.
- (2) The name and address of the farmer by whom the grain was grown ; and
- (3) The name of the variety of grain ; also, if the information can be obtained,—

(4) The number of bushels per acre of the crop from which the heads were selected.

(5) The date of ripening of the grain.

(6) The class of soil on which it was grown.

(7) Whether the field was maturated.

(8) What was crop on the field in 1898.

The lots of grain with the information may be sent until 1st December. I would like to be able to make the awards in order to send the prizes to the winners before Christmas time.

JAS. W. ROBERTSON,

Commissioner of Agriculture and Dairying.

Department of Agriculture, Ottawa, Oct. 19th, 1899.

Prince Edward Island Agriculture

To the Editor of FARMING :

It is the 15th of October and the hay and grain harvest has been gathered in in good condition, potatoes and other vegetables are being got in on fine days all over the Island ; and, by the end of the month, the year's increase from the fields will be all stored in cellar, barn and silo, awaiting the fall market and winter consumption. We have had a cool summer, rather moist and, so far, no frosts at night worth speaking of. The temperature of the atmosphere was exceedingly favorable to the cereal crops, no scorching suns to unduly accelerate the ripening process, and the result is that both wheat and oats have escaped rust, blight and mildew, so prevalent in former years. Fruit is a poor crop on the Island this year ; apples are small and wormy, thin and scarce on the trees. It is the off year for the apple crop, and also for the smaller fruits, none of which have yielded well.

Vessels are beginning to arrive at the shipping places for cargoes of oats, potatoes and other field vegetables, to be distributed among the fishing hamlets along the Cape Breton and Nova Scotia shores. Later in the season a considerable trade in dead meat will also be carried on to these maritime markets, including St. Pierre Miquelon and Newfoundland. The wharves at all the seaboard villages will present a busy scene of traffic in all local products from now to the setting in of winter.

The prices of agricultural products delivered in bulk for shipping have not yet been fairly fixed. Some cargoes of potatoes have changed hands at 16c. to 17c. per bushel of 60 lbs.

The cheese factories are still in full operation, and will not likely close down this year till the middle of November on account of the brisk demand for cheese in the English market. No reliable statistics of the output from the factories is yet procurable. Those who have some idea of the extent of business report that a larger quantity has been sent off than in any previous year. For the months of August and September the prices realized have been from 10½c. to 11½c. A good many horses have changed hands during the summer ; the buyers were from the mainland, and good horses have commanded a fair price. Sheep and lambs and fat cattle for export have also been in occasional good demand.

The fields are everywhere beginning to assume a brown and withered aspect, and the reign of summer gives place gradually to the sombre hues of late autumn. The swallows have long since departed to sunnier climes, and a solitary belated rook is sometimes heard uttering its harsh croak in the borders of the woodland. The summer tourist has gathered up his belongings and left for warmer quarters under more genial skies. We have had no violent gusts of boreal winds to strip the trees of their foliage, and to lovers of the picturesque the woodland groves that border the clearings present a beautiful appearance. The maple, in all its varied tints of green and gold, stands conspicuous and enlivens the coloring of the variegated sylvan scene.

J. HAMILTON.

New Perth, P.E.I., 15th October, '99.

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. III.

No. 3

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

Annual Membership Fees:—Cattle Breeders' \$1; Sheep Breeders', \$1; Swine Breeders', \$1.
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' Associations allowed to register sheep at 50c. per head, while non-members are charged \$1.00.

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

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

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

Farmers' Institutes of Ontario.

Announcement of Superintendent.

A fair indication of the interest taken in Farmers' Institute work by those actively engaged in agriculture in this province, is the fact that the total number of members from January to July, 1899, is 457 in advance of the total membership for the same period of 1898. Not only is this the case, but those who are members are exceedingly anxious to receive all reports and bulletins issued by the Department of Agriculture. This is proved by the fact that should any report or bulletin fail to come to hand at the proper time a card of enquiry is sure to be received by the department. The audiences at the various meetings are composed of a better class of people than formerly; meetings are better conducted, and are more thoroughly advertised. While the development of local talent is very noticeable, there is, in some districts, still room for improvement in this respect; on the whole, however, the progress made in the employment of local talent and in the carrying on of meetings generally has been very satisfactory.

MEETINGS AND ATTENDANCE.

The attendance at meetings this year, as reported by the officers of the local Institutes, was 119,402. This number, however, falls short of the actual attendance for the reason that reports from several Institutes have not been received. Altogether 677 meetings were held this year, as compared with 658 last year.

TWO ADDRESSES ONLY EACH DAY SHOULD BE GIVEN.

During previous years it has been the custom for delegates attending meetings to speak as long and as often as the officers of the local Institutes might think desirable. Owing to this the delegates in some cases have not

been able to do as good work in the latter meetings of a division as they did in the earlier ones. Last year this fact was brought to the attention of the officers of the Institutes, and as a result the average number of addresses at each meeting was slightly decreased. This year it will be in the best interests of the work if positive instructions be given to each delegate to deliver but two addresses each day.

SUCCESSFUL MEETINGS DUE TO GOOD MANAGEMENT.

In order that meetings shall be successful the necessary preparation therefor should begin at the annual meeting. That is to say at the annual meeting efficient officers and directors should be elected and suitable places and halls chosen. It must be remembered that the director of the district in which the meeting is to be held is a member of the executive until after the meeting is held. Upon the shoulders of the director should fall the main work of looking after the details and the arrangements for holding the meeting. For example, he should see that the local interest is thoroughly worked up and that the advertisements of the meeting are systematically and thoroughly distributed. The director should, therefore, be both capable and willing. If an efficient local director is elected the secretary-treasurer will be relieved of a great portion of the work which would otherwise fall upon him. Not only so, but this work can always be better done, and be done with less expense and less trouble, by someone in the district than by an outsider. But at the same time it must not be forgotten that it is the duty of the secretary-treasurer to see that the work is properly done. When no one else does it he must do it himself. Where a meeting is a failure it

is generally for lack of proper management. Occasionally outside causes may injure the meeting, but as a rule in all cases of non success, blame may be properly attached to the executive officer.

SOME ILLUSTRATIONS.

As to how much success depends on proper management the case of West Lambton may be taken as an illustration. The membership for that Institute for 1898 was 78. With a change in the management the membership for this year (1899) to July ran up to 294. A further illustration may be seen in the history of East Algoma. In that district the Institute dragged out a sorry sort of existence for several years and finally died. In 1895 the membership was 107, and the total attendance of meetings held was 513. In 1896 the membership was 75 and the attendance at meetings 332. In 1897 the membership had dwindled to 16 and no meetings were held. The management claimed that it was impossible to keep up an interest in Institute work, and the Institute practically went out of existence. In the summer of 1898 a reorganization meeting was held and an entirely new board of officers and directors was appointed. The result was that though no meeting but that of re organization was held in that year, before the end of the year over 100 members had joined the Institute. For the present year the membership to July is 141, and the attendance at meetings held 761.

WHAT WILL BE DONE IN CASES OF LACK OF INTEREST.

Sometimes it has happened that even when a meeting has been properly advertised, and all the work preparatory to holding it thoroughly done, no interest has been taken in the meeting by the people of the locality for whose more special benefit the meeting was held and the lecturers sent. When this occurs in future no lecturers will be sent for meetings to be held in a locality that proves itself so indifferent until there is evidence that some interest will be taken in the meetings when they are held there.

WHERE MEETINGS SHOULD NOT BE HELD.

The local authorities of each place where a meeting is proposed to be held should take sufficient interest in the work to provide a hall or other place for holding entirely free of cost to the Farmers' Institute. I would recommend that no meeting be held in any place where the local authorities are not able and willing to comply with this condition. If they cannot or will not do this much for the benefit of

the meeting, there is slight probability of a successful meeting being held in this locality.

FRIVOLOUS ENTERTAINMENTS PROHIBITED.

As a rule the best meetings are held in villages or small towns. In the larger towns the audience consists not only of those who attend for the purpose of obtaining practical information, but also of those who attend for mere amusement. In order to draw a crowd at these evening meetings some institutes have been in the habit of allowing such talent as the "Kickapoo Indians," or other companies of similar character, to give entertainments. This is in direct opposition to clause 32 of the Rules and Regulations which reads as follows:

"No subject shall be presented at an Institute meeting, or discussion allowed, of a political or sectarian nature; nor shall any speaker be allowed in his lecture, essay or speech, or in any discussion, to advertise wares, or schemes in which he has a direct or indirect pecuniary interest. The delegates and officers of the Institute shall see that the exercises are not subordinated to any low or frivolous entertainment or to the aggrandizement of any individual, party or sect."

Last year some of the delegates quite properly took the stand of absolutely refusing to speak at meetings at which any of these troupes were present. Such performers are there for the purpose of advertising their wares, something which every Institute is especially expected to guard against. Hereafter when Institutes adopt the course complained of, the speakers sent to them by this department will immediately withdraw from the meetings and will abstain from taking further part in them.

DELEGATES NOT ALLOWED TO ADVERTISE GOODS.

In one or two cases it has happened that delegates who have been appointed by this department in good faith have, immediately upon arriving at a place of meeting, begun to advertise merchandise in which they were personally interested. These men should have instantly been dismissed by the chairman of the delegation of which they formed a part. The duty of a chairman of a delegation is quite plain from the reading of clause 32, above quoted.

If the chairman of a delegation where this clause is contravened is remiss in his duty in the matter, the officers of the Institute visited are at liberty, and indeed, are expected, to take the matter in their own hands. It has sometimes happened, also, that Institutes have on their own account engaged speakers to attend their meetings who they knew would attend for the express purpose of advertising their wares. Many complaints in regard to this matter have been made to the

superintendent. Institutes are, hereafter, expected to comply with clause 32 to the letter.

In other cases it has happened that persons have attached themselves to delegations and followed them from one place of meeting to another, and have been allowed to deliver addresses at the various meetings, the officers believing that these persons were in attendance at the request of the superintendent. Officers and others will please note that no person is sent to address meetings by the superintendent unless his or her name is advertised in the official bulletin. This rule is absolutely adhered to except in cases of unavoidable absences of delegates so advertised. In such cases of unavoidable absence special notices are always sent to the officers of every Institute affected, and also to the chairman of the delegation concerned. Every chairman, therefore, is instructed not to allow hangers-on to impose themselves upon the officers of Institutes, and thereby use the meetings for their own self-aggrandizement. When it happens that parties insist on following a delegation in this manner, the chairman of the delegation is instructed at the opening of each meeting to announce that these parties are not members of the delegation, and are present without the knowledge of the superintendent, and are acting entirely in their own interest.

EXPENDITURE OF INSTITUTE FUNDS.

Clause 70 of the Rules and Regulations reads as follows: "All money received, whether as members' fees, legislative grant from the county councils or from municipalities, or otherwise, shall be spent within the district in which the Institute operates, (1) to defray actual expenses of meetings such as are heretofore described; (2) to employ suitable persons to address said meetings; (3) to assist in circulating agricultural, horticultural, live stock and dairy literature or periodicals among the members, or to establish a circulating agricultural library for the use of members; (4) to remunerate the secretary and others for services rendered; (5) to make an annual grant (not exceeding ten dollars) to the Women's Institute in the district."

Some Institutes have heretofore been in the habit of giving a grant to the Agricultural Societies. This does not come within the meaning of clause 70, and it is not expected that any of the funds of the Institute be used for this purpose. The Agricultural Associations each receive grants from the Department of Agriculture, and are under separate management.

LOCAL INSTITUTES.

The Rules and Regulations governing Farmers' Institutes are the Constitution and By-laws for all local Institutes. Under these Rules and Regulations each local Institute has power to carry on any local work it may consider

for the best interests of its members, providing such work is not contrary to the Rules and Regulations. The Institute in every district will be just what it is made by its members and officers and directors. Local Institutes were not organized and are not conducted for the sole purpose of holding a few meetings to which special delegates are sent by the Department of Agriculture to deliver addresses, although this is the idea of their existence that some Institutes seem to entertain. Each Institute is expected to develop its own character and its own work in its own district. Some Institutes at the present time hold meetings regularly during the winter at which none but local talent is present. Each institute is entirely independent of every other, and should work out its own development in its own way. All that is necessary in order that it may branch out on any line of work that it chooses is for the officers to determine what work they wish to do and then to go ahead and do it.

CHANGES IN THE RULES AND REGULATIONS.

Several changes have recently been made in the Rules and Regulations, the principal one being in regard to the holding of the annual meetings. Clause 14 provides that the annual meeting be held on some date to be selected between the 1st and 20th of June. Clauses 16, 17, 18 and 19 read as follows:

"16. Each year a meeting of the directors shall be called by the secretary to meet some time before the 1st of March. The special business of this meeting shall be to arrange for holding the annual meeting.

"17. If it is thought desirable by the directors present at this meeting that a delegate or speaker be in attendance at the annual meeting, the same may be arranged for through the superintendent, in which case the local Institute shall pay the actual travelling expenses of the delegate or speaker from the time he or she leaves home until he or she returns thereto.

"18. If it is decided that a request be sent to the superintendent for a speaker to attend the annual meeting, the directors shall, in addition, select the place for holding above meeting, the date being selected by the superintendent, as in the case of winter meetings. If, however, it is decided not to ask for a speaker through the superintendent, the directors shall select both date and place for holding annual meeting, conforming with clause 14.

"19. A full report of this directors' meeting shall be forwarded by the secretary to the superintendent on or before the 1st of March."

About one-third of the Institutes availed themselves of the opportunity of having a delegation attend their annual meeting of 1899. As announced last year the only time at which the

professors of the Ontario Agricultural College are able to attend meetings is during the month of June. Very successful meetings were held in several divisions. One division each was attended by Professors Shuttleworth, Reed, Day, Reynolds and Miss Laura Rose.

A copy of the Rules and Regulations will be mailed to every officer and director of a Farmers' Institute in Ontario. Every such officer and director is expected to make himself thoroughly familiar with these rules, so as to intelligently conduct the meetings for which he is responsible on the lines there laid down.

INSTITUTE OFFICERS.

The speakers to attend the meetings of an Institute should be notified by the secretary of the Institute of the subject on which they are to speak, at the earliest possible date, and if possible a copy of the poster advertising the meetings, should be mailed to them. Although it is of great advantage to a speaker to know on what subject he will speak before arriving at a place of meeting, the officers of many Institutes have been very careless in this respect and many complaints in regard to this have in the past been made by the delegates. The difficulty in some cases is that the Institutes whose meetings are the later ones of a division do not select subjects or prepare posters until the delegates have begun to attend the meetings held early in the division. By this time the delegates are so situated that they do not receive their mail matter regularly and it often happens that they get no information whatever regarding the meetings, except that which is contained in the official bulletin. All arrangements should be made before the speakers leave their homes so that full information regarding each meeting in a division may be received by the delegates before they they start out on their trips.

NUMBER OF DELEGATES AND NUMBER OF ADDRESSES.

It is the present policy of the Department to place but two delegates on the regular divisions and to have in some cases but one delegate attend supplementary meetings. It may not be possible always to comply with this policy, but so far as circumstances will allow it will be strictly adhered to. Each delegate will be expected to deliver but two addresses each day—one address at each session. A number of Institutes report that it is impossible to employ local talent when so much time is taken up by delegates. By decreasing the number of delegates and limiting the number of addresses to be delivered by them it is believed that less dependence will be placed on the delegates and more on local talent. This ultimately will prove to be a great benefit.

PROGRAMMES.

The name of no person shall be placed on the programme who has not agreed to do what is advertised, and any person who after agreeing to take part at any meeting does not fulfil his or her promise, unless for some unavoidable reason, should be given no second opportunity to so ill use the Board of Management and those who are in attendance at the meeting. After a programme has been advertised no change should be made therein except by the unanimous consent of the meeting.

CHAIRMAN.

It is most important that at every meeting a suitable chairman be placed in charge,—a chairman who will be able to keep up interest and preserve order. A meeting which would otherwise be most successful will certainly be a failure if the chairman is not properly fitted for the duties he is expected to perform.

PAPERS FROM LOCAL INSTITUTES.

Clause 60 of the Rules and Regulation requires that each Institute supply the superintendent for publication two papers prepared by local talent. This rule has been complied with by most Institutes, although the officers of some Institutes are very negligent in this respect. A number of the papers so received are published in the annual report; the great majority, however, will be published in the provincial and local weekly and agricultural papers of the Province.

This plan of publishing good papers sent by local Institutes is very important. By it two benefits are secured, first, local talent is encouraged and developed, for a man will always take pride and interest in what he writes when he realizes that if he does so he will have the privilege of impressing his ideas upon a large number of his fellowmen; second, the valuable information brought out in individual localities, which, were it not for this plan of publication, would be confined to these localities, is disseminated throughout the Province generally.

INSTITUTE MEETINGS FOR 1899-1900.

In the Official Bulletin 541 meetings are advertised to be held during the season of 1899-1900.—76 in December, 298 in January, and 167 in February. These meetings are arranged in 27 divisions.

Before publishing the dates of meeting in the Official Bulletin provisional lists are each year submitted to the executive officers of each local Farmers' Institute together with a circular letter asking that such changes in the order or dates of the meetings be made as the executive may deem necessary. If the meetings in any district when published are not arranged in what the directors consider the proper way, their executive are alone to blame, as

all arrangements have had their approval and been accepted by them. It is the object of the superintendent to so arrange the meetings that the delegates may travel from one meeting to another most easily and with the least possible expense.

All the meetings advertised have been asked for by the local officers. In some cases three meetings are advertised as regular meetings for one Institute. The third meeting comes under Clause 34 of the Rules which reads:

"Should any Institute require a speaker or speakers at any other period during the year to assist in holding supplementary meetings, application for assistance shall be made to the superintendent at the time of reporting the annual meeting. The department will pay for the services of such supplementary speaker or speakers for four days in each year for each Institute district, but the Institute requiring the services of said speaker or speakers shall pay all legitimate expenses from the time said person or persons leave home until they return thereto. When a delegate or delegates address meetings in more than one district, the expenses will be equitably divided between said Institutes and collected from the Institutes or deducted from their grants."

In other cases more than four supplementary meetings have been advertised for one Institute. All meetings held in addition to the four mentioned above in Clause 34 (and in the case of those having three meetings in the regular division, all meetings in addition to three supplementary) come under Clause 35 of the Rules which reads:

"If any Institute decides to hold supplementary meetings other than those asked for at the time of reporting the annual meeting, or for more than four days during one year, said Institute shall pay all expenses and wages. This clause shall not apply to the annual meeting."

In the annual report some Institutes made no request for holding supplementary meetings. Any additional meetings in these districts will come under Clause 35.

REPORT OF 1897-8.

Many gratifying comments have been made regarding the Report of the Superintendent of Farmers' Institutes for 1897-8. A large amount of labor and care was necessary in the preparation of that volume and it is very pleasing and satisfactory to know that the work spent upon it has been appreciated by those for whom it was specially prepared.

ACKNOWLEDGMENT TO THE PRESS.

I wish to thank the press of Ontario for their co-operation and assistance so freely given to help along the work of the Ontario Farmers' Institutes. The press as a whole have been very

courteous, and much credit is due to the local newspapers for the benefit which the Province of Ontario derives from Farmers' Institutes to-day. I trust that the friendship of the press to the Farmers' Institute system may long continue.

In closing my work as Superintendent of Farmers' Institutes for this province, I wish to thank the local officers and directors, and the regular and supplementary speakers for their constant and able co-operation. That the Farmers' Institutes of Ontario are on a sound basis and acknowledged by every province in Canada and nearly every state in the American Union to be a practical, progressive and model system of agricultural education is due in a large measure to the untiring energy and self-sacrificing spirit of many of the local officers.

I have also to express my gratitude and thanks for the help which I have received in my work from my official superiors. The Hon. John Dryden, Minister of Agriculture, and Mr. C. C. James, the Deputy Minister, have each been a tower of strength to me in my efforts to establish and maintain the Farmers' Institute system of the province as now existing.

It is right, too, that I should say that Mr. A. P. Westervelt, who has been for five years my assistant, and who has acted as accountant of the Farmers' Institute system, also deserves very much credit. He succeeds me as secretary-treasurer and managing director of the Dominion Live Stock Associations and of the Provincial Winter Fair, having been recently elected to these positions by the unanimous vote of the directors. He also continues as accountant of the Farmers' Institute system and assistant to the Superintendent.

Prof. Geo. C. Creelman, B.S.A., has been appointed my successor as Superintendent of Farmers' Institutes, and I earnestly ask for him the hearty support and co-operation of all parties interested in agriculture and in the welfare of Ontario. He has a great and growing work before him. The Farmers' Institute system is now but in its infancy, its possibilities for good being, humanly speaking, almost unlimited.

F. W. HODSON,
Superintendent.

Parliament Buildings,
Toronto, Oct. 21, 1899.

To Institute Officers.

In the next issue of FARMING will be published a short record of the work of the past year, showing the institutes which held the largest number of meetings, the meetings which were the most largely attended, the institutes having the largest membership and those having the smallest membership. We expected to be able to pub-

Regular Meeting to be Held in December, 1899

DIVISION 7A.

MAJOR JAMES SHEPPARD, QUEENSTON.—“Country Roads: How to Improve Them”; “Planting and Care of Orchards”; “Propagating Fruits, Grafting, Budding, etc.”; “Forty Years Experience in Growing Corn”; “Tomatoes for Home and Market”; “Ensilage and the Round Silo”; “The Export Bacon Trade.” Evening Subjects: “Four Reasons why we Till the Soil”; Three Historical Days on the Niagara River.”

J. G. DAVIDSON COLLINGWOOD.—“The Practical Veterinary Treatment of Stock”; “The Management of Live Stock in Health and Disease”; “Feeding for the Show Yard”; “Permanent Pastures,” with collection of specimens of the best grasses for Ontario conditions; “The Diseases of Canadian Live Stock with Treatment”; “The Nutritive Ratio of the Different Foods Grown and Fed on the Farm”; “The Value of Artificial Manures in Canadian Farming”; “The Chemistry of the Farm”; “The Soils of the Farm and their Treatment.”

1. Alton, Science Hall.....	Peel.....	Nov. 27th.
2. Brampton, Concert Hall.....	Peel.....	“ 28th.
3. Woodbridge, Orange Hall.....	W. York.....	“ 29th.
4. Weston, Eagle Hall.....	W. “.....	“ 30th.
5. Agincourt, Temperance Hall.....	E. York.....	Dec. 1st.
6. Markham, Town Hall.....	E. “.....	“ 2nd.
7. Whitevale, Wilson's Hall.....	S. Ontario.....	“ 4th.
8. Columbus, Town Hall.....	S. “.....	“ 5th.
9. Bowmanville, Council Chamber.....	W. Durham (Afternoon).....	“ 6th.
10. Courtice, “Sons” Hall.....	W. “ (Evening).....	“ 6th.
11. Orono, Town Hall.....	W. “ (Afternoon).....	“ 7th.
12. Newcastle, Town Hall.....	W. “ (Evening).....	“ 7th.
13. Millbrook, Town Hall.....	E. Durham.....	“ 8th.
14. Bethany, Town Hall.....	E. “.....	“ 9th.
15. Blackstock, Town Hall.....	W. Durham.....	“ 11th.

DIVISION 7B.

J. S. WOODWARD, LOCKPORT, N.Y.—“Animals Simply Machines: What for, and How to Run”; “Potato Culture”; “Summer Fallowing versus Fall Fallowing”; “Weeds, the Poor Farmer's Friends”; “Silos and Silage”; “Corn, How Best to Grow and Use it”; “Economical Milk Production”; “Warm Stables—Close Housing, High Feeding, and Constant Watering the Corner Stones of Success in the Dairy”; “Profitable Beef-Making”; “Sheep on a Dairy Farm”; “How to get most Money out of Sheep”; “Nitrogen Traps—How to Use Them”; “What Becomes of the Food Eaten by the Animal.” Evening Subject: “A Lay Sermon.”

1. Uxbridge, Town Hall.....	N. Ontario.....	Nov. 27th.
2. Beaverton, Alexandra Hall.....	N. “.....	“ 28th.
3. Oakwood, Township Hall.....	W. Victoria.....	“ 29th.
4. Lindsay, Town Hall.....	W. Victoria.....	“ 30th.
5. Fenelon Falls, Dickson's Hall.....	E. “.....	Dec. 1st.
6. Bobcaygeon, Town Hall.....	E. “.....	“ 2nd.
7. Peterboro', County Council Chamber.....	W. Peterboro (Afternoon).....	“ 4th.
8. North Monaghan, Town Hall.....	W. “ (Evening).....	“ 4th.
9. Lakefield, Town Hall.....	W. “.....	“ 5th.
10. Warsaw, Agricultural Hall.....	E. Peterboro.....	“ 6th.
11. Westwood, Town Hall.....	E. “.....	“ 7th.
12. Stirling, Moon's Hall.....	N. Hastings.....	“ 8th.
13. Madoc, Masonic Hall.....	N. “.....	“ 9th.

DIVISION 8.

WM. RENNIE, TORONTO.—“How to Restore and Maintain Soil Fertility”; “Economic Feeding of Live Stock”; “Beautifying the Farm.”

MISS BLANCHE MADDOCK, GUELPH.—“Scientific Dairying”; “Bacteria or Germ Life as it Affects the Home, the Soil and the Dairy.”

1. Baltimore, Chapman Hall.....	W. Northumberland.....	Nov. 27th.
2. Grafton, Town Hall.....	W. “.....	“ 28th.
3. Brighton, Music Hall.....	E. Northumberland.....	“ 29th.
4. Warkworth, Town Hall.....	E. Hastings.....	“ 30th.
5. Frankford, Sweetman's Hall.....	W. Hastings.....	Dec. 1st.
6. Wallbridge, Town Hall.....	W. “.....	“ 2nd.
7. Demorestville, Town Hall.....	Prince Edward.....	“ 4th.
8. Bloomfield, Town Hall.....	“.....	“ 4th.
9. Shannonville, A.O.U.W. Hall.....	E. Hastings.....	“ 5th.
10. Plainfield, C.O.O.F. Hall.....	E. “.....	“ 6th.
11. Newburgh, Finkle's Hall.....	Addington.....	“ 7th.
12. Centreville, Town Hall.....	“.....	“ 8th.
		“ 9th.

DIVISION 9A.

T. G. RAYNOR, B.S.A., ROSEHALL.—“Selection and Cross-Breeding of

Animals"; "Composition of Foods," illustrated; "The Common Diseases of Domestic Animals and their Cure"; "Planting and Care of the Orchard"; "Improving an Impoverished Farm"; "Clover Culture"; "The Corn Plant"; "Swine Breeding and Feeding"; "The Pea Crop"; "How to Build Concrete Structures"; "Manures"; "Leaks on the Farm"; "Water in Relation to Farm Crops"; "The Farmer's Garden." Evening Subjects: "Tillage"; "Progressive Agriculture"; "The Ontario Agricultural College"; "Agricultural Education."

J. N. PAGET, CANBORO.—"Care of Milk for Cheese Factory, Creamery and Private Dairy"; "The Most Profitable Method of Marketing the Coarse Grains Grown on the Farm"; "The Value of Corn and when to Feed it to Dairy Cows"; "Why Turnips should not be Used as Food for Dairy Cows"; "The Value of the Babcock Tester on the Farm, in the Cheese Factory and Creamery"; "How to Encourage Our Boys to Become Successful Farmers"; "The Value, Mode of Construction and Cost of 'Sub Earth Ducts' as a Means of Controlling the Temperature of Cheese Curing Rooms"; "The Land in which We Live, or Canada Our Home."

1. Bath, Town Hall.....	Lennox.....	Nov. 27th.
2. Emerald, Cheese Factory.....	Amherst Island.....	" 28th.
3. Stella, Town Hall.....	".....	" 29th.
4. Napanee, Town Hall.....	Lennox.....	" 30th.
5. Harrowsmith, Town Hall.....	Frontenac.....	Dec. 1st.
6. Lansdowne, Town Hall.....	S. Leeds.....	" 2nd.
7. Mallorytown, Oddfellows' Hall.....	Brockville.....	" 4th.
8. Westport, Wesley Hall.....	S. Leeds.....	" 6th.
9. Addison, Ashwood Hall.....	Brockville.....	" 7th.
10. North Augusta, Pardee Hall.....	S. Grenville.....	" 8th.
11. Spencerville, Town Hall.....	S. ".....	" 9th.
12. Joyceville, Joyce's Hall.....	Frontenac.....	" 11th.

DIVISION 9B.

HENRY GLENDINNING, MANILLA.—"The Growing and Marketing of Grain"; "The Growing and Marketing of Red and Alsike Clover Seed"; "Weeds on the Farm"; "Best Kind of Grasses for Pasture"; "Cultivation of Corn for the Silo"; "Poultry for the Export Trade"; "Underdraining"; "The Farmer's Fruit and Vegetable Garden"; "The Hog and Export Bacon Trade"; "Feeds and Feeding"; "The Spraying of Fruit Trees."

DANIEL DRUMMOND, MYRTLE (late of Petite Cote, Montreal, Que.).—"Cultivation of the Soil"; "Corn for the Silo, Varieties, Cultivation"; "Silo—Kind, and How to Fill"; "Founding and Maintaining a Dairy Herd"; "Rearing Dairy Calves." (Will deliver addresses in English or French as desired.)

1. Iroquois, Town Hall.....	Dundas.....	Nov. 27th.
2. Morrisburg, Music Hall.....	Dundas.....	" 28th.
3. Osnabrock Centre, Poapst Hall.....	Stormont.....	" 29th.
4. Cornwall Centre, Township Hall.....	Cornwall.....	" 30th.
5. Lancaster, McRae's Hall.....	Glengarry.....	Dec. 1st.
6. St. Andrews, Old Church.....	Cornwall.....	" 2nd.
7. Monkland, Traux Hall.....	Stormont.....	" 4th.
8. Crysler, Furney's Hall.....	Stormont.....	" 5th.
9. Alexandria, Queen's Hall.....	Glengarry.....	" 6th.
10. Vankleek Hill, Town Hall.....	Prescott.....	Dec. 7th and 8th.
11. Eastman's Springs, Boyd's Hall.....	Russell.....	Dec. 9th.
12. Cumberland, Town Hall.....	Russell.....	" 11th.

DIVISION 10.

JOHN McMILLAN, M.P., SEAFORTH.—"Benefits of Farmers' Institutes"; "Draining Land"; "Care and Application of Manure"; "Cultivation of the Soil"; "Rotation of Crops"; "Growing Corn"; "Breeding and Feeding Cattle"; "Silos; Are They Beneficial?"; "Buying and Care of Implements"; "Hog Feeding." Evening Subjects: "The Ontario Agricultural College"; "Our Boys and Farm Life."

MISS LAURA ROSE, LADY INSTRUCTOR IN DAIRYING, O.A.C., GUELPH.—"The Making of Prize Bread and Butter"; "Difficulties in the Dairy and How to Overcome Them"; "The Properties and Care of Milk"; "Dress, its Health, Influence and Beauty"; "Economy in the Household"; "One Eye in the Fields, the Other in the Town." (Miss Rose is prepared to recite as well as speak at evening meetings.)

1. Perth, Town Hall.....	S. Lanark.....	Nov. 27th.
2. Smith's Falls, Town Hall.....	S. Lanark.....	" 28th.
3. Merrickville, Town Hall.....	N. Leeds and N. Grenville.....	" 29th.
4. Oxford Mills, Town Hall.....	N. Leeds and N. Grenville.....	" 30th.
5. North Gower, Town Hall.....	Carleton.....	Dec. 1st.
6. Manotick, Harmony Hall.....	Carleton.....	" 2nd.
7. Renfrew, Temperance Hall.....	S. Renfrew.....	" 4th.
8. Eganville, George's Hall.....	S. Renfrew.....	" 5th.
9. Beachburg, Town Hall.....	N. Renfrew.....	" 6th.
10. Forester's Falls, Orange Hall.....	N. Renfrew.....	" 7th.
11. Almonte, Town Hall.....	N. Lanark.....	" 8th.
12. Carleton Place, Town Hall.....	N. Lanark.....	" 9th.

lish this data in the present issue, but the space at our disposal will not permit.

The Reserve List.

The following is a list of reserve delegates whose services may be obtained by local institutes during the month of December on the following terms: The legitimate expenses of the delegate must be borne by the institute employing him or her from the time he or she leaves home until he or she returns thereto, together with a per diem of \$2.50 for the time the person is absent from home, Sunday excepted:

Duncan Anderson, Rugby; G. A. Brodie, B.S.A., Bethesda; G. C. Casan, Craighurst; A. Elliott, Galt; R. to. Essex, Toronto; V. Ficht, Oriol; H. C. Hallman, New Dundee; W. W. Hilborn, Leamington; John I. Hobson, Guelph; R. Honey, Brickley; D. McCrae, Guelph; Mungo McNabb, Cowal; A. McNeil, Walkerville; T. H. Mason, Straffordville; J. E. Meyer, Kossuth; C. W. Nash, Toronto; J. E. Orr, Fruitland; A. W. Peart, Burlington; A. J. Reynolds, Danforth; Jas. Stonehouse, Port Perry; Wm. Smith, Columbus; R. S. Stevenson, Ancaster; N. Somerville, Lanark; R. Thompson, St. Catharines; Jas. Tolton, Walkerton; I. Usher, Queens- ton; I. C. Wheatley, Blackwell.

The list of subjects of the above speakers will be found in the Bulletin of Farmers' Institute meetings for 1899 1900.

FARM HELP EXCHANGE.

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

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

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

Help Wanted.

A young man for mixed farming. Must be married. Yearly engagement to the right person. Apply A.F., this office. 2

Situations Wanted.

Mr. H. D. Binkley, Dundas, Ont., wants a first-class farm hand. A married man preferred with a family of grown up boys, who must all be good workers. He wishes to engage such a person as soon as possible. 2

Man wanted about November 1st; must be a good stockman; steady and reliable. Apply with particulars to this office. 2

The Farm Home

Information Wanted.

By way of opening up a discussion that we think will be very helpful to all concerned, we would like to have as many short articles as possible from the readers of these pages dealing with the following topics. Contributors can write on any one or all of the subjects as they see fit:

(1) How can the long winter evenings in the farm home be most profitably spent?

(2) What are your ideas as to entertainment for young people in the country?

(3) What would be the best plan for arranging a reading circle in the farm home, so that every member of it who could read could take part?

How to Spend the Long Winter Evenings?

To the Editor of FARMING:

After reading your kind invitation to those interested in the "Farm Home" I am sending my quota of views on the subjects under discussion.

Always regarding the environments and associations of the young people on the farm of enormous weight in acting for future usefulness, the long winter evenings properly spent should be of much value in making up for the lack of time for self-culture so often complained of during the busy springtime, the hurried summer and the fall with its few leisure moments. How often, alas! is the scene in the rural home truly pictured with the cooking stove apparently the only magnet in the roomy kitchen! Around it are seated the different members of the family as though when the day's work was finished with it also was the day's aim in life. All praise to the farmer girl or boy who works each day as though their respective tasks were the most important duty; but, when that is cheerfully performed, life has, or ought to have, a broader horizon than that bounded by mere menial toil, which would mean a very narrow life indeed; so, then, let the evening be spent as a reward for the day's work—an interlining for the sandwich of labor.

A good idea at the approach of the long evenings is to systematically arrange a programme for each week's undertaking. Say, on Monday, if within access to a circulating library, have some of the standard poets, beginning with something simple. Try Tennyson as an experiment. Get whatever works you can bearing on his poems. Take, for example, his "Locksley Hall." Spend one entire evening on it, and you will not be sorry. Don't try to digest too much

solid reading. A few lines committed to memory will sometimes mean more of an educator than a whole chapter skimmed over.

On Tuesday have some lighter reading, a novel by a well-known author. If practicable, read aloud. Discuss and pick out the choice pieces. Talk it over at meal-time, and an added relish will be given to your reading.

By Wednesday a change will be welcome if the family are at all musical. Throw open the old-fashioned parlor or the new-fashioned drawing-room. Open up your piano or organ. Bring in the violin and mouth-organ. Let there be a family concert. Though the harmony, and sometimes the discord, would jar on a cultivated ear, practice will make the music at least pleasing to the home ones.

Thursday, we might have an hour with Shakespeare (?) Why not. "Oh," you say, "that great poet requires some one with more education than farmer folks have to understand him." Not at all. His wonderful simplicity is his greatest charm.

Friday evening ought to be our night out. Organize, or help to organize, some club for outdoor exercise. Sleighing parties, snowshoe clubs, or a few friends meet together for a night's skating. "All work and no play, etc.," is true for the grown-up as well as the little people. Let not our town friends monopolize those healthy pastimes.

Saturday evening will find us mentally and physically benefited by the week's evenings, and this night may be specially devoted to the weekly papers and magazines. Though daily newspapers may not be practicable we will find the summing up of the world's movements in any of the large weeklies, and there is no surer way of keeping in touch with the sphere of action which will become the history of succeeding generations.

A most profitable way of spending some of the leisure moments is to closely study the agricultural problems of the times from a scientific and also from a practical aspect. Nothing connected with our work is of small importance whether in the house or in the field. "Enthusiasm lightens labor," then as housekeepers and agriculturists let us be enthusiastic.

ENTERTAINMENT FOR YOUNG PEOPLE.

Perhaps a leaf from my own experience in this matter may not be out of place, and it will have the weight of being weighed and *not* found wanting. A few years ago our neighborhood was blessed with a number of young people with about the average intelligence and education. Most of them had spent some time at a high school, a

few had gone on with some of the higher branches. Socially we were at a loss how to spend the winter evenings. The idea was originated to form a society for mutual improvement and pleasure. All entered heartily into the scheme, and a full-fledged society with a membership of forty-five was the result. Each member pledged himself to do all in his power to aid the undertaking.

That society has had reason to be proud of its work. For five years it flourished. Most of its active members have found their wings and are now in scenes far distant from the home ones, but the benefit received from the friendly fellowship remains. The meetings were held every week. First in the form of a programme evening, as we designated it, when recitations, readings, songs and instrumental music interspersed with charades and tableaux, were in order. Nothing low or vulgar was ever permitted by the committee appointed to overlook this evening's work, and the president occupying the chair had little occasion to call any of the members to order.

Arrangements would be made at this meeting for the next, which took the form of a debate, and to those interesting debates many of our young men may thank the ease with which they can address an audience in a religious or municipal meeting.

The debates soon became famous, and it was considered a favor for an outsider to be allowed to be present at one of them. The mothers and fathers were soon as interested as the young people, and houses were gladly loaned for the evening, so there was no cash outlay, and the entrance fees were devoted for the purchase of some good books, which formed the nucleus for a library.

Nor was the purely social side forgotten. Three or four times during the winter one or other of the larger houses was thrown open and a jolly time was indulged in by all. The last generally was in the form of a sugar party or taffy-pull, and when the roll was called on this particular evening, at any rate every member was present. Of course in some country neighborhoods this might not be practicable. It required good judgment and some little tact to steer clear of shoals that often land a small society of this nature in entire disunion, and then—obliteration.

Our proximity, our knowledge of one another and a certain degree of mutual forbearance and respect rendered it possible to keep in unity.

The chief feature in indulging in entertainments for the country ought to be to try those things in which all can intelligently partake.

"What touches all should be approved by all."

Evenings with Browning, evenings with Tennyson, are merely high-sounding titles to those who regard that style of entertainment as intellectual boredom, while to others they are mental food to be conned over during the busy working hours.

All have not the same thirst for knowledge and a form of more material pleasure must be found for such; in fact, any innocent entertainment that gives an evening's unalloyed enjoyment is in order, for "To the pure all things are pure."

A FARM READING CIRCLE.

Constitute mother and father honorary president and vice-president, critic and audience. Divide the reading matter into two parts, wise and otherwise, or, to make it plainer, solid and humorous.

Doubtless you will be surprised to find how interested the little ones will become in some humorous anecdote; perhaps at school the next day an older sister will hear it repeated to a group of very small women and men, thus showing the memory of the little one is becoming strengthened. Even history may be made palatable to the younger ones if told them in interesting form.

Have one of the family read aloud or take it in rotation. Discuss, if possible, fully and intelligently what is read. "Mark, learn, and inwardly digest," is sage advice. One might take notes, another hunt up the meaning of any unfamiliar word or phrase, or any foreign word. Then if the pronunciation is doubtful, have a reliable dictionary at hand for reference.

Before closing the night's work, one of the family might briefly outline the history, biography, or story; when the memory fails let another take up the thread and go on to the end.

By all means have a critic, but let the criticism be given in a helpful spirit, for even friendly criticism is sometimes unappreciated.

A series of winter evenings spent in close companionship with some of the great authors cannot fail to bring the reward of wider knowledge and truer culture.

Trusting I am not trespassing on your valuable space. I am,

Yours very cordially,

MARY R. FERGUSON.

Smith's Falls, Ont.

What is that which is invisible yet never out of sight? The letter S.

Why is a comprehensive action an affectionate one? It *embraces* everything.

What is the difference between photographing and the whooping cough? One makes fac-similes, and the other makes sick families.

A servant ushered Mr. Foote and his two daughters into a drawing-room as "Mr. Foote and the two Misses Feet."

We Never Know.

We're most always grumblin', an' we're nearly always stumblin',
An' we're growlin' and we're gruntin' all the time;
Some of us are cussin', and most of us are fussin',
Whether we're worth a million or a dime.
We're whining or we're bragging, we're twistin' tails or nagging,
At fortune we are liable to scoff;
But after earnest praying—I know what I am saying—
We scarcely ever know when we're real well off!

We scorn the precious littles, we grumble at our vituals,
We sit upon our haunches and we chew the toothsome rag;
We worry out our lives, fret our sweethearts and our wives,
Ah, heartlessly we fret them till their spirits sink and sag,
We're scowling and we're howling, we're yowling and we're growling,
To fortune in our pathway our hats we never doff;
But after earnest praying—I know what I am saying—
We scarcely ever know when we are real well off!

We never see the beauties, we never see the duties,
That God in lavish kindness has spread on every side;
We shun his sweet advances and never take the chances
To gather all the lilies that float upon his tide.
We are ever after bubbles, we manufacture troubles,
'Tis we who put the bitter in the cup we daily quaff,
So after earnest praying—I know what I am saying—
We scarcely ever know when we're real well off!

—The Khan.

Housekeepers' Alphabet.

Ants—Scatter branches of sweet fern where they congregate.

Brooms—Hang in cellar way to keep pliant and soft.

Coffee—Keep securely covered, as its odor affects other articles.

Dish of hot water in oven prevents cake from scorching.

Economize—Time, health, and means, and you will never beg.

Flour—Keep cool, dry, and closely covered.

Glass—Clean with tablespoonful of ammonia in quart of rainwater.

Herbs—Gather on a dry day when beginning to blossom. Keep in paper sack.

Ink stains—Immediately saturate with milk; rub vigorously with a cloth.

Jars—To prevent, remember it takes two to make a quarrel.

Keep—An account of your expenditures and income.

Love—Lightens labor.

Money—Count carefully when you receive your change.

Nutmegs—Always grate blossom end first.

Oranges—Keep best wrapped in soft paper.

Parsnips—Are best in March and April. Keep in the ground till spring.

Quicksilver—And white of an egg destroys bed-bugs.

Rice—Should be large, plump, and white. Old rice may have insects.

Scalds—And light burns; dress with the white of an egg to keep out the air.

Table napkins—Should never be starched.

Use—A cement of ashes, salt and water for cracks in stove.

Variety—Is the best culinary spice.

Watch—Your back yard for dirt and bones.

Xantippe—Was a scold; don't imitate her.

Youth—Is the best preserved by cheerfulness.

Zinc—Lined or ironed sinks are better than wooden ones.

October Notes.

Repair the walks.

High feeding for pansies.

Hard frosts do beets no good.

Do you lift the tardy tuberose?

No compromise with the late weeds.

Chrysanthemum buds should be thinned.

New York city uses 40,000 rosebuds daily.

Do not sow lawn grass seed after October 1st.

A pot of mignonette comes in nicely in the spring. Sow now.

One advantage of autumn tree planting is that there is more time at this season.

Prune blackberries closely. You will notice that the best fruiting is on the young, not the old, branches.

The bloom from October-planted bulbs is a little better than that from November-planted. Have the better bloom.

What a first-class asparagus bed needs is a three-inch coat of rich manure every year. This is the time to apply it.

Many persons never have fine beds of Dutch bulbs simply because they do not bring themselves to the easy but necessary task of fall planting. Such neglect is inexcusable.

Thousands of spring-planted, cut-leaved birches die every year, because these trees are poorly adapted to spring planting. Set them in the fall and ninety per cent. of them would live.

If you contemplate a hotbed next spring, it is well to make some provision ahead, as early as this fall. One provision is to collect soil of good loamy quality—decayed turf well enriched is the best. It should be covered to prevent deep freezing, although if the outer part be frozen it will be a benefit. Another is, see that you have a site that is well drained and well protected. If there is no other shelter, a tight board fence eight or ten feet high will answer. Such a fence, if required, can be better erected with

much less labor when there is no frost in the ground. The same is true of laying drain tile, and that is why we speak of the matter now.—*From Vick's Magazine for October.*

When the Corn is on the Cob.

Some people fancy lobster
When it's served in Newberg style;
Some for a bit of bluefish
Would be glad to walk a mile;
There are people who love oysters,
And I've often vaguely heard
That there's something like contentment
In a bottle and a bird,
But the greatest satisfaction
That my palate gives to me
Is in eating corn upon the cob—
When no one's there to see.

There are people who go crazy
Over duck that's strong and tough,
And I've heard wise men declaring
That bear steak was good enough;
There are those who cling to turkey.
Others say a mess of trout
Is a thing to make a monarch
Sit up nights und talk about,
But of all the joys of eating
The most joyful thing to me
Is to chew the corn upon the cob—
When no one's there to see!

There's a royal satisfaction
When the butter's on the ear
In the chewing of the kernels,
Being sure there's no one near;
There's a sweetness in the smearing
That you get upon your chin
And the joy of it increases
From the moment you begin,
But, alas, what compensation
Is contained for you or me
In nibbling corn upon the cob
When other folks may see.

Broiling.

Broiling is the most nutritious method of cooking mutton and pork chops, or beef and rump steaks, kidneys (which should never be cut open before cooking), etc. Have the grid-iron clean, and put over a clear fire; put the meat on it; "keep it turned often." This last is a common direction in books, but the reason why is never stated; it is to keep the gravy in the meat. By letting the one side of a steak be well done before turning, you will see the red gravy settled on the top of the steak, and so the meat is hard and spoiled. This is cooking the gravy out of, instead of keeping it in, the meat to nourish the consumer. Never stick the fork in the meaty part; you will lose gravy if you do. Be sure to turn often, and generally the chop or steak is done if it feels firm to the fork; if not done it will be soft and flabby. It is economical to broil well. Many a very little piece of meat, nicely broiled, with gravy in it, well seasoned with pepper and salt, a very little butter on it, and served up quite hot, will make a better and more nourishing meal than four times the amount of badly cooked in the frying pan.—*Ideal Cook Book.*

Paper comforters are light and warm. They have the appearance of basket cloth, and are of a pale ecru color.

The Hen of the Period.

Hear the cackle of the hens—
Speckled hens!
They are coming to my garden from their
evil-smelling dens;
As toward my place they flock,
How they gabble and they squawk,
Too absurd to lay some eggs,
They can only use their legs
And their toes,
With a wild and woolly yearning for the seeds
that I have sown,
And they prance around my garden while I
only stand and groan;
Scratching harder, harder,
To supply their crops and larder
With a resolute endeavor
Now, now to spoil or never
Every plant and tree that grows;
O, the hens, hens, hens,
What a lot of warm amens
I exclaim!
What a lot of bricks I heave,
But they always miss, I grieve
To remark to my sympathizing friends;
Yet my soul it fully heeds
By the squawking
And the shocking
Noise, they're getting all my seeds;
Yet my brains distinctly know,
By the flapping
And the scrapping
That all the weeds alone will grow;
And I sink down in a chair,
And I swear, and I swear,
And I tear my blooming hair;
And I wish I had about a gross of smoking
iron pens;
I would roast them to their dens,
All these hens;
All these hens, hens, hens, hens,
Hens, hens, hens,
All these good-for-nothing, wrath-provoking
hens.
—*Walt Mason, in M Cook Courier.*

Strayed or Stolen.

An Englishman, being asked how to spell saloon replied: "I guess you spell it with a hess, a ha, a hell, two hoos and a hen."

Johnny—"Papa, what is a peninsula?"

Papa—"Johnny, a peninsula is a long neck extending out to see"—(sea).

The Bride—"I don't want to have any kind of trouble with you, Bridget."

The Cook—"Well, then, bedad, ma'am, let me hear no complaints."—*Puck.*

Rivers—"It's going to rain again. I can always tell by the way the corn on the bottom of my foot feels."

Brooks—"O, my prophetic sole!"—*Chicago Tribune.*

"My horse has reasoning powers, I tell you."

"In what respect, particularly?"
"Well, instead of shying at that automobile cab he edged up to it and kicked it."—*Chicago Record.*

When a man is so blindly in love as to let a girl touch him for a \$200 ring he is stone blind.

It is said that a burned child dreads the fire. Probably that is the reason why the newly married man tries to avoid his old flames.—*Tid-Bits.*

Gems of Thought.

The cheerful man's a king.—*Bickerstaff.*

The brave only know how to forgive.—*Sterne.*

The cause of Freedom is the cause of God.—*Bowles.*

The better wit is, the more dangerous is it.—*Landor.*

Sweet mercy is nobility's true badge.—*Shakespeare.*

Talent convinces—genius but excites.—*Bulwer Lytton.*

The beginning of compunction is the beginning of a new life.—*George Eliot.*

There is no finer chemistry than that by which the element of suffering is so compounded with spiritual forces that it issues to the world as gentleness and strength.—*George S. Merriam.*

The meek, the disinterested, the unselfish, those who think little of themselves and much of others—who think of the public good and not of their own—who rejoice in good done, not by themselves, but by others, by those whom they dislike as well as by those whom they love—these shall gain far more than they lose; they shall "inherit the earth" and its fulness.—*Dean Stanley.*

It is not easy to be in any great assembly without thinking that the chance which brings so many people together will also make us meet our friends.—*Goethe.*

College

If you are interested in the subject of this

Course

Advertisement write us. If you know of anyone else that is, tell them to write also

Free

Address,

J. L. NICHOLS & CO.

33 Richmond Street West,
TORONTO, CAN.

Cut this out.

THE SECRET OF ADVERTISING

Lies in the selection of the right mediums. The right medium for the Maritime Provinces is the

CO-OPERATIVE FARMER

The only exclusively agricultural journal in Eastern Canada. Free sample copy and ad. rates on application.

CO-OPERATIVE FARMER
Sussex, New Brunswick

Farming.

A PAPER FOR FARMERS AND STOCKMEN.

Managing Director, D. T. McAINSH
Editor, J. W. WHEATON

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.

San Jose Scale Law in Manitoba.

The Dominion Minister of Agriculture on the presentation of Manitoba representatives has had an order-in-council passed by which anyone in Manitoba or the North west Territories who wishes to obtain from Dakota and other north-western states cottonwood trees for planting in Manitoba and the Territories can do so from now up till the first of January next. Shipments will be made by the port of Brandon, where Supt. Bedford, of the Experimental Farm, will make a thorough examination for traces of the San Jose scale. Whether this exportation will be continued after the first of the year is not known. Manitobans seem to think that the application of the Dominion San Jose Scale Act to that province is an absurdity.

Another Canadian Honored.

The University of Madison, like many other agricultural colleges in the United States, has recently appointed a Canadian to a position of responsibility in its agricultural department, in the person of Mr. A. G. Hopkins. Though Mr. Hopkins is not Canadian by birth, about all his agricultural training has been received here. He was with Messrs. J. Gardhouse & Sons, Highfield, Ont., for five years, after which time he attended the Ontario Veterinary College, standing third in his graduating class. After practising his profession in Manitoba for awhile he entered the Ontario Agricultural College. After spending two years at Guelph he went to the Iowa Agricultural College from which he received the degree of Bachelor of Agriculture and Veterinary Medicine. Since receiving this latter degree he has spent three months in post-graduate work at McKillop Veterinary College, Chicago.

Mr. Hopkins has received the appointment of assistant in Animal Hus-

SCHOOLS.

TORONTO

YOUNG

MEN and MAIDENS...

May enter the new century feeling strong for the work ahead of them, and with success assured, if they take now a course in this reliable and successful business college.

- B OK-KEEPING,
- STENOGRAPHY,
- TYPEWRITING,
- PENMANSHIP,
- BUSINESS LAW and
- ADVERTISING.

British American Business College

Y.M.C.A. Bldg, Cor. Yonge and McGill Sts.
... TORONTO ...

DAVID HOSKINS, Chartered Accountant,
Principal.

All Flow = =
= = No Ebb

25% increase on our last year's attendance. A maximum daily roll call of 216. That's where the tide of competency has carried into this year, and it means the largest business school in Canada to day.

The demand for the competent book-keeper, stenographer or telegrapher is steadily on the increase. We know it—our experience proves it. That demand will be greater than ever in 1900. Will you join us now and be able to do something then? A line to us will secure you more information. Send for it.

Central Business College

TORONTO, ONT.

W. H. SHAW, Principal

HAMILTON.

CANADA BUSINESS COLLEGE

Hamilton, - - Ontario.

The leading Canadian Business College. Connected with over a thousand business houses. For beautiful prospectus

Write—R. F. GALLAGHER, Principal.

STRATFORD.

A School with a FINE RECORD

Central Business College

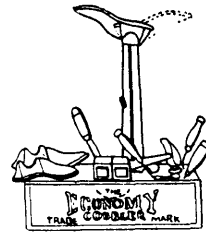
STRATFORD, ONT.

Six American Business Colleges and two Canadian Institutions have recently applied to us for our graduates to teach in their schools. If you want additional evidence of our superiority you will find it in our catalogue—the finest business college catalogue in Canada. Write for one. Students admitted at any time.

W. J. ELLIOTT, Principal.

New and Novel, a Sight Seller. **BIG MONEY FOR AGENTS**

WRENCH AND JACK Combination for Buggies, Carriages & Light Wagons. Removes and grasps burr while Jack acts as continuation of axle, supporting wheel and leaving spindle clear for oiling. No lost washers. Agents write for special prices. ENTERPRISE MFG. CO.. - TORONTO, ONT.



49c.

For our **COBBLER'S REPAIRING OUTFIT**

Usually sold at \$1.00

49c.

For the **HANDY HARNESS RIVETTER**

and a Box of Tubular Rivets. Indispensable to any horseman. Usually sold for \$1.00.

Quantities of above are limited at the prices. Send your order in early to

Russill's AT THE MARKET

159 King Street East, TORONTO



DOMINION PATTERN

COW TIE AND STALL FIXTURE

The Stall Fixture is very strong, and because of its circular cross section is exceedingly rigid. Its simplicity, convenience and ease of attaching make it a great favorite. The short chain makes the tie cheaper than the ordinary patterns.

AMERICAN CHAINS

because of the short links, handsome appearance, smooth surface—which cannot injure the animal's neck—and great durability, are superior to all other styles of chain for Cow Ties. For further information see Special Cow Tie Catalogue, free on application.

ONEIDA COMMUNITY, LTD.,
NIAGARA FALLS, ONT.

bandry and instructor in veterinary science at Madison, where he will teach this latter subject and live stock judging to students in the Agricultural Course. We wish Mr. Hopkins every success in his new work, and feel sure that he will acquit himself as other Canadians have done who have taken similar positions in American colleges and that is, nobly.

"The Stamp of Success on Every Page."

The Bristol (England) *Times and Mirror* of October 5th, in dealing with Canadian agriculture and in noting the success of the Toronto Fair, makes the following very complimentary reference in regard to the Exhibition number of FARMING. The copy was, however, not sent by the editor of this journal, but must have been forwarded by one of our subscribers interested in advertising Canada abroad:

"By the by, dealing with the success of the Toronto Exhibition reminds us that the editor of *Farming*, one of the best agricultural papers of the Dominion, has courteously forwarded us a copy of the Exhibition number of this publication. The illustrations and matter are admirable, and no one seeing it can be surprised at the great stride it has made in its seventeen years' career. The paper has a sturdy, prosperous look about it and carries the stamp of success on every page."

Why Sows Eat Their Pigs.

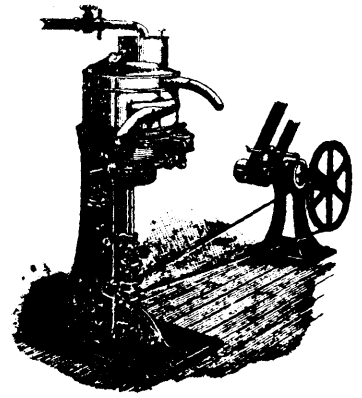
"Why does a sow sometimes destroy and eat her pigs?" There are a good many reasons given for this habit. Among them the following: "Hysteria, something similar to puerperal mania in the human family." "An unnatural craving produced by an unhealthy condition of the body." "An acute thirst due to too much grain being fed, and an insufficient supply of water."

I might give half a dozen other reasons but if investigated to the bottom they will all be found to be due to one cause, "improper feeding of the mother during pregnancy." No sow when farrowing in summer, running in good pasture with plenty of water to drink, ever eats her pigs. It is only when she farrows in winter quarters or in the very early spring after being wintered that this trouble occurs.

It makes me tired to read as I did a few days ago in a western paper devoted to the swine industry such advice as to be sure to "feed a pregnant sow, for a few days before farrowing, a piece of fat pork daily, and if costive to give a dose of salts sufficient to move the bowels and cool the blood." What nonsense! Why not be sensible and tell the owner to make the conditions as near like summer as possible and then feed the sow, not only for a few days or weeks before farrowing, but during the whole period, on a succulent, cooling diet. I will stake my reputation as a farmer that no sow kept in a roomy, warm pen and fed liberally on roots, wheat middlings with a little linseed oil meal

In these days of keen competition, honest merit and actual superiority of results, obtained under severest tests, must alone recommend . . .

Alpha De Laval Cream Separators



Belt Power Machine.

In numerous tests by leading creamery men and farmers in competition with other machines, the "Alpha" has produced most butter from a given quantity of milk. The cream was of better churnability and commercial smoothness. The process of separation is perfection. The "Alpha" was more easily operated, requiring less power. Its speed was from 1000 to 20000 revolutions per minute less than its would-be competitors.

"Alpha" De Laval Separators are made in all sizes, either hand or power, suitable to all requirements.

Write us for Catalogue and prices of these celebrated machines.

The Canadian Dairy Supply Co.,

MONTREAL, QUE.

**GOOD CHEER
STOVES & RANGES**

OUR
BOOK MARK
MAILED ON REQUEST!

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

TOLTON'S

NO. 1 DOUBLE ROOT CUTTER



Points of Merit:

1. To change from pulping to slicing is but the work of a moment.
2. There are two separate wheels, one for pulping and the other for slicing.
3. The united force of both wheels is always used in doing the work in either capacity.
4. The hopper is between the wheels, and does not choke

THE ONLY DOUBLE ROOT CUTTER MANUFACTURED.

Fitted with Roller Bearings, Steel Shafting and all that is latest and best in principle, material and construction.

TOLTON BROS., - - GUELPH.

**Increase your business
by advertising in FARMING**

added and plenty of skim milk will ever eat her pigs.

Last winter I put twelve sows into a roomy basement and fed them on nine bushels of culled apples and twenty pounds of wheat middlings daily, and the twelve raised 100 nice pigs and never a moment was lost in watching them, nor did they show any tendency to cannibalism. I am this winter keeping twenty on a diet of mangels, wheat middlings and skim-milk with a little oil meal occasionally, and I am not the least afraid any of them will have a craving for young pork at farrowing time. When a breeding sow is wintered, as so many of them are, on what hay she can pick up in the barnyard and a daily feed of ear corn, and compelled to sleep in the straw or under the barn, she becomes constipated and feverish, and when the family arrives there is no milk for them, but on the contrary the udder is caked, inflamed badly and sore, and not being able to reason from cause to effect it is no wonder that instead of eating the owner, who by his foolish way of feeding is the responsible party, she has hysteria and eats her pigs. The wonder is that she lives through the ordeal of farrowing.

Of course it is better not to meddle with the sow at this time unless some assistance is absolutely necessary, but every sow from her youth up should be handled and made so tame that the presence of her owner will not annoy her, so that he may be around, but if she be fed properly as above indicated she will heed nothing until she is through, when in a short time, she should be given a drink of quite warm water and then left until she comes from her bed of her own account, which will sometimes not be for a full day or more.

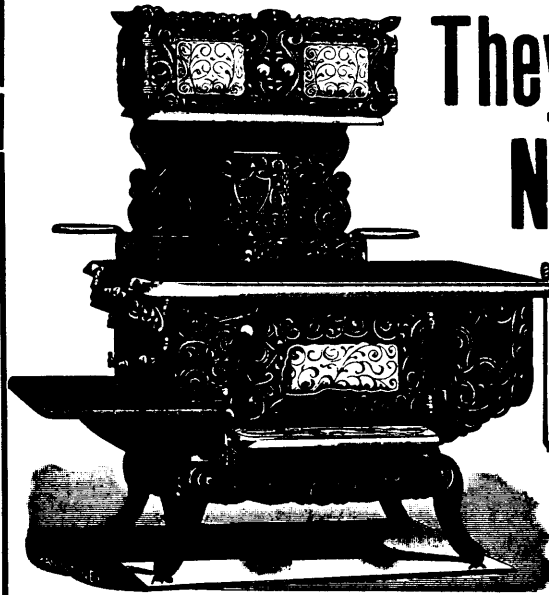
Of course it will not do to feed so much succulent and laxative food as I have indicated, and then compel the sow to endure zero cold or sleep in a snow bank or wet straw. But every man so foolish as to keep his sows in such quarters ought to know enough not to try to have them raise a family until they have time to run in pasture so as to fully overcome the evil effect of such a suicidal system of wintering. —J. S. Woodward, *The National Stockman and Farmer*.

Tourist (in a remote corner of Scotland)—“You get no newspapers here? Good gracious, you never know what's going on in France.” Rustic—“Aweel, and whit about it? The folk in France are nae better aff. They dinna ken whit's gaun on here.”

Stock Notes

MR. WM. WILLIS, Pine Ridge Farm, Newmarket, Ont., writes: I must congratulate you upon the splendid exhibition number which you got up. It put me in mind of the old home to see Smithfield and Covent Garden markets, as I have been to both places a good many times. My Jersey stock is all doing fairly well. I have had six two-year-old heifers calve since March, and a nice lot they are. Some of them are very promising. Brownie of Pine Ridge is a very nice heifer with a fine square udder, and gave more milk

The Aberdeen | The Victorian
FOR COAL AND WOOD | FOR WOOD ONLY



They're Top Notches

and genuine merit has put them there.

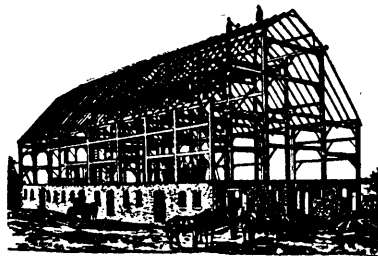
They're sure, quick and perfect bakers, with fuel consumption reduced to the minimum—they're handsomely fitted—artistic in design—they're “all that heart could wish for” in a stove.

A splendidly illustrated and descriptive booklet with 159 testimonials is yours for the asking.

The Copp Brothers Co., Hamilton

BRANCHES—TORONTO AND WINNIPEG

Thorold Cement...



Barn of Beswetherick Bros., Hagersville. Size of Floor, 80x120 ft. Put in with Thorold Cement in 1896.

They say:—“Our floors are as hard as stone. We clean our stables by driving a team and wa. on through the stable on the concrete behind our stock, and load the manure on the wagon. We can truly say it is just perfection for stable floors.”

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 and 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.**

BOYS AND GIRLS!
WE ARE GIVING AWAY
Gold Plated Watch Chains for selling 100 packages
of **THE POWER** at 5 cents per package and 25 CENTS
(Inconspicuous and does not weigh) Sell Price 5 for 5
cents. **SEND IN THE RECEIPT** (within 30 days and receive
Watch Chain. Send your name and address, name of
neighbor.

DORNINGTON SUPPLY HOUSE, Hamilton, Ont.
Harrison Twp. Farm.

The Razor Steel

SECRET TEMPER, CROSS-CUT SAW



WE take pleasure in offering to the public a Saw manufactured of the finest quality of steel and a temper which toughens and refines the steel, gives a keener cutting edge and holds it longer than by any process known. A Saw, to cut fast, “must hold a keen cutting edge.”

This secret process of temper is known and used only by ourselves.

These saws are elliptic ground thin back, requiring less set than any saws now made, perfect taper from tooth to back.

Now, we ask you, when you go to buy a saw, to ask for the Maple Leaf, Razor Steel, Secret Temper Saw, and if you are told that some other Saw is as good ask your merchant to let you take them both home and try them, and keep the one you like best.

Silver steel is no longer a guarantee of quality, as some of the poorest steel made is now branded silver steel. We have the sole right for the “Razor Steel” brand.

It does not pay to buy a Saw for one dollar less and lose 25 cents per day in labor. Your Saw must hold a keen edge to do a large day's work.

Thousands of these Saws are shipped to the United States and sold at a higher price than the best American Saws.

MANUFACTURED ONLY BY
SHURLY & DIETRICH
GALT, - ONT.

when she calved than her mother, Lady Marjoram. Mina of Pine Ridge, a daughter of St. Lambert's Florence, had a remarkable fine large udder, when fresh, and Brittella of Pine Grove, a daughter of 200 Per Cent., had a fine large, well-balanced udder, and Samantha of Pine Ridge, calved a week ago, a daughter of my old Milly McClelland, has a very nice forward udder.

Our pasture a while back was, I think, worse for the time it was dry than last year, but I have got them tided over that now, and as we had a very fine crop of corn (the best in our section of country) we have plenty of feed now. I will give statistics later on about our butter crop. I might give you some of our recent sales. I sold three high-grade heifers to Wm. Smith, York Mills; one yearling bull from St. Lambert's Florence to W.D. Reesor, Markham; one high-grade cow to Lancelot Strothers, Pine Orchard, and one cow and a yearling heifer to Wm. Rolph, Markham. I shipped a fine shearling ram to W. J. Dodd, Innisfail, Alberta, who was very much pleased with his purchase, and said he was just the kind of sheep he wanted. He was also pleased with the way he was taken care of during the shipment (he went in the Association car). One very fine ram lamb was sold to G. H. Marks, Oakwood. This will make a fine show sheep, as his brother beat, over the line, sheep shown and imported by G. Harding & Son. They are both from our celebrated stock sheep Magons, 11,400, and this last week I sold to Mr. Golding, of Cleveland, four very fine shearling ewes. I have still two very fine young bulls fit for use next spring for sale, seven and six months old. I have also a fine shearling ram for sale.

BRITISH COLUMBIA PURCHASES.—Shannon Bros., of Cloverdale, B.C., have made some fine purchases lately of purebred stock. The Clyde mare, Belle of the Glen, which won championship for best mare shown, was sold the above mentioned firm, also Stoke Pogis, the noted bull which was first in Toronto, 1898, as a two-year-old, goes to head their herd of Jerseys. A fine ram lamb bred by J. H. Jull & Sons, of Burford, and which won in Toronto, now heads their flock of Oxfords. Tom Lee, the Berkshire boar which hustled King Highclear for first at Toronto, now heads their herd, and also won championship for the best boar in B.C.

MR. W. J. ELLIOTT sold his entire herd of Jerseys by public auction on the show grounds, Oct. 6th, at Westminster. Prices ranged from \$10 for a bull calf to \$136 for his stock bull. 25 head brought about \$1,600.

WON 64 PRIZES.—N. M. Blain, Cold-spring Farm, St. George, Ont., writes: "Have just finished up the fall fairs, and have had a very successful season, winning 36 firsts, 23 seconds, and 5 thirds, including the best prizes offered in Canada. Have a nice stock still on hand; for description see advertisement in FARMING. Fall litters are coming strong and right, and I am doing business at the same old stand."

Progressive and Successful.

The fact that the Central Business College, so well located in the Forum, has found it necessary to materially increase its hitherto spacious accommodation by adding to its premises the large hall, formerly occupied by the A.O.U.W. and other societies, and the apartments so long held by the Dorcas Society of the Church of England, is quite sufficient evidence that this progressive school is enjoying a prosperous and successful term.

On the staff are nine regular teachers, while the equipment including over 40 typewriting machines is up to date in every particular. The work of this school is practical and thorough, and that business men look largely to this college for such clerical assistance as they require is probably best shown by the numerous applications on file at the college office, which during the past three days include the firms of John Catto & Son, Bertram Engine Co., Chemical Compound Co., The Miln-Bingham Co., R. S. Williams & Son, The Metropolitan Life Ins. Co., and The Dominion Express Co.

ALEXANDRA AND MÉLOTTE CREAM SEPARATORS

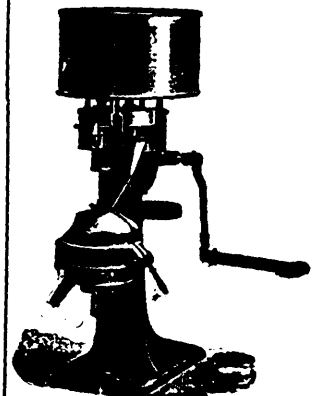
Have met with universal success at the leading Fall Exhibitions, beating all competitors. Several special awards have been given to the "MÉLOTTE" as being the most efficient and easiest running separator on the market. We only ask you to give the "Melotte" a trial.

For full particulars apply to

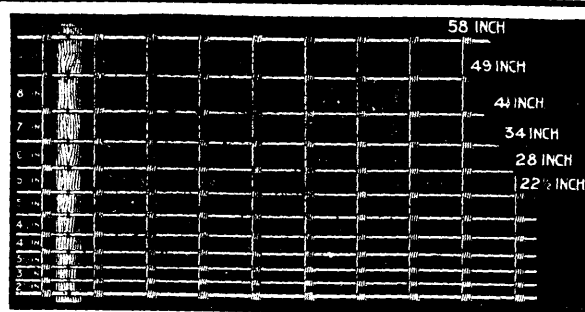
R. A. LISTER & CO., Limited

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

SENT ON FREE TRIAL



SATISFACTION GUARANTEED



The
Farmer's
Best
Friend—
Good
Fences

A true friend every day—every season—the one absolutely satisfactory fence—

THE AMERICAN FIELD AND HOG FENCE,

made of large, strong wires, absolutely immovable, thoroughly galvanized and nicely woven. A genuine money saving fence. Sold by dealers everywhere. If you can't find it, write direct to us for catalogue.

AMERICAN STEEL & WIRE CO., Chicago or New York.

The Westminster

CANADA'S IDEAL
HOME PAPER. . .

In a period of less than four years The Westminster has reached a circulation unprecedented in the history of newspaper making in Canada.

To thousands it is known as the representative paper of the great Presbyterian Church in Canada, with its 700,000 members, reflecting their best intelligence and strength.

First published as a monthly, The Westminster quickly won favor. Rather more than two years ago The Canada Presbyterian, published for 27 years, was merged with The Westminster, and the latter became a weekly, at the same time retaining its special magazine number bearing date of the first issue of each month. But the stronghold of The Westminster is the fact that it is an ideal home paper bringing light, cheer, hope and happiness into the home circle—a paper for every member of the family of whatever religion, read by all with delight and profit. It was through the columns of The Westminster that those wonderful serial stories of Ralph Connor's, "Black Rock," and the "Sky Pilot," first appeared, besides other notable serials.

Published every week. \$2 a year in advance. The remainder of this year FREE to new subscribers.

Address

The Westminster Co., Limited

CONFEDERATION
LIFE BUILDING, Toronto.

Market Review and Forecast

Office of FARMING,
Confederation Life Building,
Toronto, Oct. 23rd, 1899.

Though this is a somewhat off-season in many lines general trade conditions continue bright and active. Not for a number of years has the outlook for Canadian trade been so bright as it is at the present time. Money is firm on call, and discounts are reported steady at 6 to 7 per cent.

Wheat.

Whatever advance may have been looked for in the price of wheat because of the South African War seems to have been cleared away by the extraordinary advance in ocean freight rates and also by the great difficulty shippers have in getting sufficient cars to convey their cargoes to the seaboard. But even if this advance in freight rates had not come it is not likely that there would have been any material advance in wheat because of the war. A somewhat new feature in the situation just now is the large accumulation of stocks of wheat and flour in Great Britain. At the beginning of this month these amounted to 11,888,512 bush. of wheat and 795,878 sacks of flour as against 4,247,496 bush. of wheat and 319,204 sacks of flour at the same time last year. This may account for the war having so little effect upon the wheat market.

Markets on both sides of the Atlantic have ruled dull and quiet and have generally been in favor of buyers. Cables have been disappointing. The movement of wheat in the west shows no important changes. At Montreal the market is weak in keeping with reports from abroad. The market here is fairly steady at 66½ to 67c. for red and white north and west, and 70 to 71c. for goose. No. 1 Manitoba hard is quoted at 79½ and No. 1 northern at 76½c. Toronto. On the Toronto farmers' market red and white bring 70 to 72c., spring fife 68c. and goose 74c. per bushel.

Oats and Barley.

The English oat markets are reported firm with more enquiry and an advance of 3d. A shortage is reported in the Russian crop which may lessen the supply from that quarter and create a better demand for Canadian later on. At present the export oat trade is like the wheat trade, affected by the advance in ocean freights, and consequently the advance reported on the otherside is not having any effect here. Oats are reported steady here at 27c. for white east and 26c. west. On the farmers' market they bring 29 to 30½c. per bushel.

Considerable quantities of barley are going to England and at Montreal prices are firm. Barley is quoted here at 42 to 43½c. for No. 2 west and 35 to 36c. per bushel for feeding. On the Toronto market 46 to 48½c. per bushel is the quotation.

Peas and Corn.

Peas are quiet at Montreal at about 69c. afloat. An easier feeling is reported west. The market here is reported steady at about 59c. north and west. On the farmer's market here peas fetch 62c. per bushel.

The corn market has been somewhat quiet. The *Price Current* reports a disappointing corn yield in the United States. American corn is quoted here at 40c. per bushel on track Toronto.

Bran and Shorts.

Quite a scarcity of bran is reported at Montreal and quotations are \$15.25 for bran and shorts at \$16.50 to \$17.50 per ton. City mills here sell bran at \$13 and shorts at \$16 in car lots f.o.b., Toronto.

Eggs and Poultry.

There is not much new to report in regard to the wholesale egg trade. The English demand for Canadian eggs continues good with the market steady and a demand for pickled stock. At Montreal prices continue the same though an advance is reported at country points, due to speculation. The warm weather has had a dull effect upon the shipping trade. Choice new laid eggs are quoted here at 17 to 18c. in large lots. On the To-

ronto farmer's market they bring 20 to 25c. per dozen.

Some large orders have been received of late for dressed poultry for the British market as reported last week, but it is doubtful whether sufficient fowl of the right sort can be secured to fill them. It is reported that an order for 100,000 birds which came to Toronto several days ago will have to be largely filled in the United States, as our farmers have not a sufficient supply of properly fattened poultry. Dressed turkey are quoted at 10½ to 11c., and chickens at 9 to 10c. per lb. at Montreal. Thanksgiving trade here was brisk and supplies went off quickly. Wholesale prices are 10 to 12c. for turkeys and 5 to 7c. per lb. for geese, and 60 to 70c. per pair for ducks and 40 to 60c. per pair for chickens. On the Toronto farmers' market chickens bring 40 to 80c., and ducks 50 to 80c. per pair, and turkeys 11 to 14c., and geese 7 to 8c. per lb.

Potatoes.

There has been more enquiry at Montreal for potatoes. Here the supply of late has been larger than the demand, and cars on track are quoted at 40c. per bag. On the farmer's retail market potatoes fetch 45 to 55c. per bag.

Apples.

There seems to be an unusual supply of windfalls and of fall fruit this year, especially the last. At Montreal the canners have carried away a quite a lot of this stock, the best of which sold at \$1.40 to \$1.60 per bbl. Winter stock is now coming out more freely, and large shipments are going forward from Montreal. Sales have recently been made there at \$2.75 to \$2.85 with some choice lots going as high as \$2.90 to \$3 per barrel. A report of sales of winter apples in Liverpool gives \$2.25 per bbl. net at Ontario points. Grapes are reported to be a kind of drug at Montreal and prices have dropped there ¼c. per lb.

Hay and Straw.

There is a much better demand for hay for export at Montreal owing largely to the British army demand in South Africa, though prices are kept back a little on account of the excessive ocean freight rates. This extra demand and a good local enquiry have caused prices to advance 50c. to \$1 per ton. Several cars of No. 2 quality are reported sold at \$7.50 and clover at \$6.50 to \$7 per ton., with the latter freely bid. Some choice cars of No. 1 quality have been sold at \$9 per ton. The supply seems to be scarcely equal to the wants of the trade. There is a good demand here for baled hay at \$8.50 to \$8.75 for No. 1 timothy in cars on track and \$8.25 for clover. On the Toronto farmers' market hay brings \$12 to \$13.50, sheaf straw \$8.50, and loose straw \$4 to \$5 per ton.

Seeds.

There has been strong buying in Europe lately of clover seed and as supplies are limited prices in England have advanced 5s. to 10s. per cwt., during the past six weeks. The Montreal market is also firm at 8 to 9c. per lb. Flax seed is quoted there at \$1 to \$1.25 per bushel. There has, as yet, been very little new clover seed marketed in Ontario. A few small lots sold in Eastern Ontario brought \$4.25 per bushel. The corner in clover seed mentioned a week or two ago has proven to have been only a slight squeeze on the part of some speculators. On the Toronto farmers' market red clover brings \$4.25 to \$5, alsike \$5.50 to \$7.20, white clover \$7 to \$8, timothy \$1 to \$1.25, and timothy, flailed, \$1.50 to \$1.65 per bushel.

Cheese.

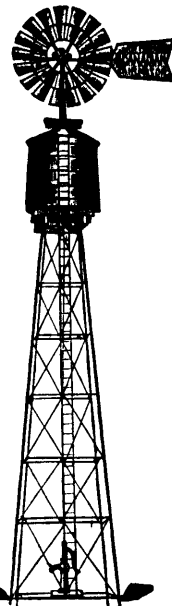
The cheese markets have ruled duller and prices have been easier than a week ago. The English markets keep steady, and though stocks are light dealers do not seem to be willing to meet the demand here as to prices. In fact there seems to be a little war on between dealers on both sides of the Atlantic. The English dealer seems deter-

mined not to raise his limits, while those on this side, and especially the factorymen, are inclined to wait a while and give him his time to size up the situation. However that may be, prices last week were lower and the market easier. Undoubtedly English dealers have in mind the reverses of 1897 when they lost so much on fall cheese at 10c. and are evidently wary about paying 11½ to 11¾c. for the same line of goods lest they meet with similar losses. One thing they seem inclined not to do and that is to buy very far ahead. But English dealers have maintained a somewhat similar view from the beginning of this season. The increase in shipments from Montreal, up-to-date, is now only a couple of hundred boxes more than for the same period last year. Things have been quiet at Montreal. Finest western colored is quoted there at 11¾c. and finest eastern at 11½c. There has been very little done at the local markets, during the week buyers bidding only 11c. which factorymen would not accept. At Brockville on Thursday 11 3-16 was offered for colored but none sold.

Butter.

There is a further decline in the butter market. Canadian butter has dropped 5s. per cwt. in London, Eng., which makes a drop of 7s. to 10s. during the past two weeks, while Danish has 12s. to 15s. in the same time. This has caused a falling off in prices at Montreal of 1 cent, making the ruling figures of the week 21c. for choice creamery and 20½c. to 20¾ for fine goods. Over 20,000 pkgs. of fresh grass butter from Australia have arrived in England, which is pretty early in the season, but as prices have been good an extra effort has been made to get it in as quickly as possible. It was not expected till November. The best grades brought 120 to 126s. and secondary grades 102s. to 110s. per cwt. The shipments of butter from Montreal this season up to date are 408,416 pkgs. as compared with 208,809 pkgs. for the same period last year, an increase of nearly 200,000 pkgs. This coupled with the increase in shipments from New York for the same time make a total increase from this side of 238,908 pkgs. as compared with the same period last year. At Toronto creamery prints bring 22c. to 23c. and tubs 20c. to 22c. per lb. While there has been a fair supply of dairy butter choice quality is wanted. Pound rolls are quoted at 17c. to 18c. and tubs at 16c. to 18c. in large lots. On the farmers' market lb. rolls bring 18c. to 25c. each.

WINDMILLS



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.

Wool.

Wool shows very little change. Though there are signs of improvement in the market, it has not had much effect yet upon prices at Ontario points. Some American buyers are in the field, but the prices they are offering are not considered high enough for those who have wool to sell. Some business has been done at Montreal. Canadian pulled wool is quoted there at 20c., and fleece at 17 to 18c. per lb.

Cattle.

The cattle situation has not improved much during the week. At all the leading American markets trade has been draggy and dull, and the only kinds that sell at all brisk is the very best quality. On the Toronto cattle market on Friday receipts were not large. The quality of the fat cattle was no better than it has been for the past six weeks, very few first-class lots being offered. Trade was slow, except for best qualities. Prices were a little easier. Though few exporters were offered, they were more than were wanted. Space on ocean vessels has become very scarce, owing to the British Government taking several of the cattle boats for transport service, and higher freight rates are being asked.

Export Cattle.—Choice lots of these sold at \$4.50 to \$4.70 per cwt., and light ones at \$3.80 to \$4.25. The bulk of exporters sold at \$4.25 to \$4.60 per cwt. Heavy export aulls sold at \$4 to \$4.12½, and light ones at \$3.40 to \$3.65 per cwt.

Butchers' Cattle.—Choice picked lots of these, equal in quality to the best exporters, weighing 1,000 to 1,100 lbs. each, sold at \$4 to \$4.12½; good butchers' cattle at \$3.45 to \$3.60; medium at \$3.35 to \$3.40; common, \$2.75 to \$3; and inferior, \$2.60 to \$2.80 per cwt.

Stockers.—In Buffalo, stockers, yearling steers weighing 500 to 600 lbs. each, were almost unsaleable on Friday at \$2.25 to \$2.50 per cwt., while heifers and white and black steers of the same weights sold at \$2 per cwt.

Feeders.—Heavy feeders are easier. Choice high-grade steers, in good condition, 1,100 to 1,200 lbs. each for farmers' purposes, while not plentiful, sold at \$3.60 to \$3.80, and rough steers of the same weights, suitable for the byres, sold at \$3.40 to \$3.50 per cwt. Feeding bulls sold at \$2.75 to \$3 per cwt.

Milk Cows.—While the bulk of these sold at \$25 to \$45 each there were several extra choice ones which sold at from \$50 to \$60 each. More good cows are wanted.

Calves.—These have been in moderate supply at Buffalo. The market here on Friday was dull, as poultry is beginning to supply the place of veal. Prices ranged from \$4 to \$8 each.

Sheep and Lambs.

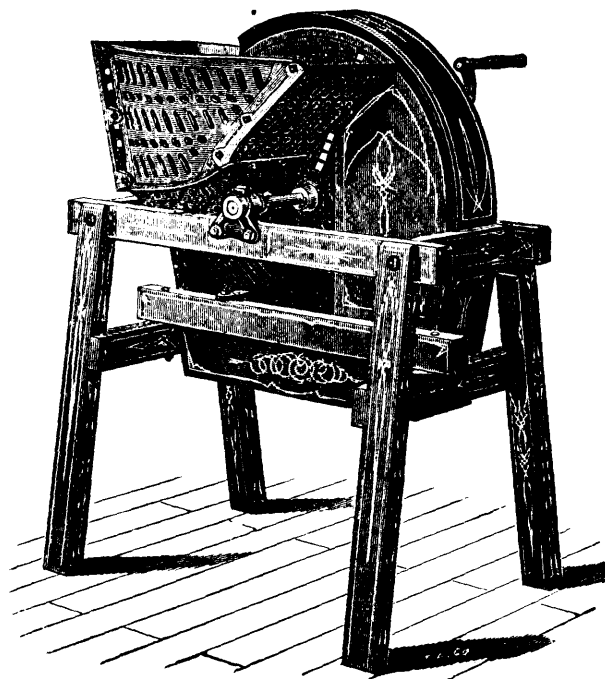
Sheep show some improvement over a week ago. On Friday at Buffalo there was an advance of 10 to 15c. on top grades, and a little advance in Chicago early in the week. On Toronto market on Friday prices were a little firmer for sheep at \$3 to \$3.25 for ewes, and \$2 to \$2.50 per cwt. for bucks. Butchers' sheep sold at \$2.50 to \$3 each. Lambs are not so strong. They sold at \$3.25 for culls, and \$3.40 to \$3.65 for good to choice lambs, while one or two picked lots of ewes and wethers sold at \$3.75 per cwt. Fully 300 lambs were unsold at the close of the market.

Hogs.

There were 2,000 hogs on Toronto market on Friday, which is only a fair number. Prices were steady at \$4.37½ for best bacon hogs of good quality, not less than 160 nor more than 200 lbs. each (off cars), unfed and unwatered, and at \$4 per cwt. for thick and light fats; unculled car lots sold at \$4.25 for the bulk. Essex and Kent corn-fed hogs bring from \$4 to \$4.12½ per cwt. It is reported hogs will be lower in the near future, a statement which is not in keeping with the following cable to the *Montreal Trade Bulletin*, re Canadian bacon:

LONDON, Oct. 18, 1899.—“There has been a steadier tone to the market under an improved demand, and prices have advanced 1s.”

The Montreal market has ruled steady, packers paying \$4.50 per cwt. for all the ogs they wanted.



New Root Cutter (Pulper and Slicer combined)

THE NOXON CO.

(LIMITED)

Ingersoll, Ont.

MANUFACTURERS OF

HIGH - GLASS FARM IMPLEMENTS

Please write for Price List and Descriptive Catalogue

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 bankers 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

To the Farmers

of this Canada of ours:

WE heartily thank you for the liberal and increased patronage which has made the past year a record breaker in our business.

The Dominion Report of Mineral Production for 1898 shows that the farmers and stockmen of Canada used during the year

More Queenston Cement

than the combined output of all other Canadian manufacturers of Natural Rock Cement. Ask for prices, or for estimate of cost of any kind of concrete work.

OUR SYSTEM OF VENTILATION

is being adopted by the leading agriculturists of Canada and the United States. Fully covered by letters patent, but to our patrons we make no charge.

Write for pamphlet containing full information.

ISAAC USHER & SON
QUEENSTON, Ont.

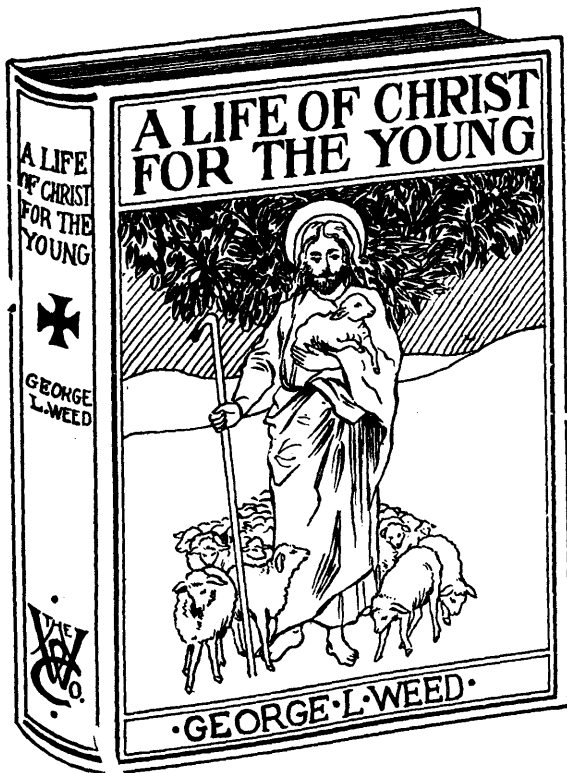
Keep in remembrance that
balance of year is free to all
New Subscribers

Farming

Handsome **DOLLAR
BOOK
FREE**
for only
One New Subscription

"The Life of Christ for the Young," by Geo. L. Weed, is meeting with a cordial reception from readers of FARMING. It is proving an attractive book premium; and why not? Who would not exert themselves to secure a dollar subscription from a friend that they might receive this handsome book without charge? Hundreds are doing it; why not you? We give some particulars:

Dollar Book Free



"The Life of Christ for the Young," by Geo. L. Weed, is a book of about 400 pages, with 75 full-page half-tone illustrations that add very much to its attractiveness. We think ourselves it is one of the most complete books of the kind that has been published in many years. The author is peculiarly well fitted to write such a book, possessing a grace of style that makes it interesting to all children. He writes from knowledge of the Holy Land, having personally visited there and gathered data and observed for himself. The illustrations are so numerous that they bring out the most important features of the text in a manner not often done in books of this character.

It is bound in handsome cloth, with embossed front cover. Publisher's price \$1.00.

—This book will be mailed post-paid to any
—present subscriber sending one new yearly
—subscription.

Present subscribers to FARMING (not in arrears) may receive a copy post-paid on receipt of 50c., half publisher's price.

GENTLEMAN'S WATCH FREE

in solid silver case, open face, stem wind fitted with Waltham movement, which is a guarantee that the watch is a good time-keeper, and will give satisfactory wear.

—This watch will be given free to any subscriber sending us
—fifteen new yearly subscriptions to FARMING, sent post-
—paid at our expense. Regular price of the watch is \$8.50.
Any subscriber to FARMING (not in arrears) can have this watch on payment of \$5.75, sent postpaid to his address.

READING GLASS FREE

Any subscriber renewing his own subscription and sending \$1.00 extra will receive, carefully packed for mail, a good 4-in. reading glass that is sold regularly at \$2.50. This glass is especially valuable for examining seeds, insect pests, etc. Any subscriber sending us one new subscription may receive the glass for 75c.; and by sending three new subscriptions will receive the glass free.

ANOTHER WATCH FREE

Nickel finished case, open face, stem wind and set. We do not say this is a full nickel watch, but it will hold its color for a year or more, whilst we can thoroughly recommend it as an accurate time-keeper. It is the watch in use among a large number of the conductors of the Toronto Street Railway, where an accurate time-keeper is a necessity.

—This watch sent postpaid to any subscriber sending four
—new yearly subscriptions to FARMING.
It will be sent to any present subscriber (not in arrears) on receipt of \$1.50.

BIBLE FREE

Any subscriber adding only 75c. to his subscription may have a copy of the Oxford Workers' Bible that is sold regularly at \$2.50 sent postpaid to his address. This volume is printed in very large, clear, new Minion, size 5 in. x 7½ in., and bound in Levant Morocco, linen-lined, with round corner and red undergold letters.

This is the best season of the year for an active canvass for a publication like FARMING. We know this from the manner in which many of our friends are making up clubbing lists. We would like you to be one of the number. Address all letters and make cheques, drafts, and money orders payable to

FARMING, Confederation Life Bldg., TORONTO

*Mosson Boyd & Co
1 Jan 00*

Easy to Manipulate

Where the mowing has to be done on rough or stony land one wants a Mower that can be easily handled. The Levers and Foot Lift on the

Massey-Harris Line of Mowers

are so convenient to the driver's seat that any range of adjustment can be readily obtained with but slight pressure. A boy can drive and handle these machines, the Levers are so easily manipulated.

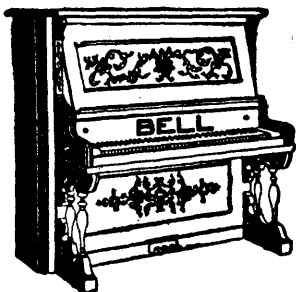
Massey-Harris Co.
Limited
Toronto, Canada

Waning Fertility in Soils

Softened due to the want of LIME. It is one of the constituents on which plants most largely depend for proper growth, and one most quickly exhausted. The application of

Lime as a Fertilizer

Not only adds the necessary element, but renders the natural stores of inert food available to the plant, and ameliorates the quality of heavy soils. The results in **INCREASED YIELD** and **IMPROVEMENT IN THE QUALITY** of crop by its use have been so great as to seem almost incredible. **IT IS THE CHEAPEST**, most durable in effect, and the most easily obtained fertilizer in the world. **IT CAN BE OBTAINED FROM ANY 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.

NAIL THIS IN YOUR MEMORY

WINDSOR SALT

gives to butter that delicious sweetness and freshness.... which brings the high price. Perfectly pure; natural.... crystals. Try it.

The Windsor Salt Co., Limited
Windsor, Ont.

Cheese and Butter

Makers of these articles, in many instances, do not pay the necessary attention to the quality of the salt they use. Some people think that "salt is salt," and it does not matter where it comes from or who makes it. This is a great mistake, for it is essential that to produce the best Butter or Cheese nothing but the purest salt should be used.

The number of prizes obtained by users of

'RICE'S' or 'COLEMAN'S' DAIRY SALT

at the various exhibitions is conclusive proof that these brands of salt stand unrivalled. For prices, etc., address

R. & J. RANSFORD,
Clinton, Ont.

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

Woodstock Steel Windmills

FOR
POWER
AND
PUMPING

Get a
DANDY

WITH
GRAPHITE BEARINGS
They Run without Oil.

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



WOODSTOCK WIND MOTOR CO. Limited
Woodstock, Ont.