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FARMING

January 10th, 1899.

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

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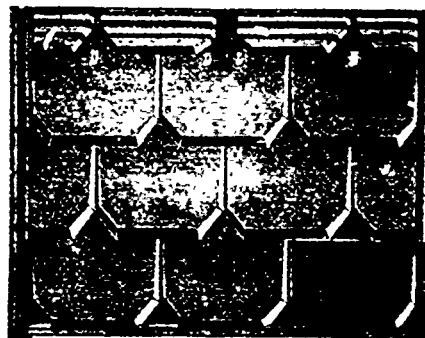
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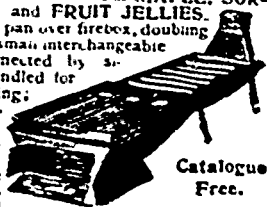


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CHAMPION EVAPORATOR

For MAPLE, SORGHUM, CIDER, and FRUIT JELLIES. Has a corrugated pan over firebox, doubling boiling capacity; small interchangeable syrup pans (connected by syphons), easily handled for cleaning and storing; and a perfect automatic regulator. The Champion is as great an improvement over the Cookpan as the latter was over the old iron kettle hung on a fence rail.



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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 grand 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 225 Elcruy St., Montreal.

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For Sale

Good Shearing Ram and some fine Rams and Ewe Lambs; also some good young Yorkshire Sows and Boars. Some good young Heifers in Calf for sale.

John Cousins & Sons,
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Importer and Breeder of OXFORD-DOWN SHEEP

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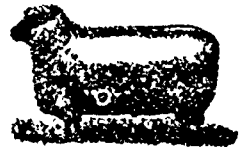
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For Sale.—A fine lot of ram and ewe lambs, bred from imported sire and dam. Prices to suit times.

SMITH EVANS
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MAPLE LANE FARM.
One mile north of Claremont, on C.P.R.

Gotswolds Twenty good ram lambs, shearing and two-shear, at farmers' prices. Some excellent shearing ewes, bred to our best studs.

Berkshire Sows ready to breed. Boars fit for service. Twenty Plymouth Rock Cockerels, choice.

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Offers:
10 Shorthorn Bulls—good ones—at \$50.00 to \$75.00 each.
Yorkshire Boars and Sows ready for breeding at \$12.00 each.
Yorkshire and Berkshire boars and sows from 30 lbs. to 80 lbs. at \$6.00 each. All stock REGISTERED and shipped C.O.D.

Shorthorn Heifers by Statesman, and Berkshires by Baron Lee. Eight weeks old. Also one Baron Lee boar, ten months old.
Bolton Station, C.P.R. and Palgrave, G.T.R.
A. J. Watson, Castlegreg, Ont.

A. TELFER & SONS, Paris, Ont., Breeders and Importers of reg. Southdown Sheep. For sale.

JAS. P. PHIN, The Grange, Hespeler, Ont., breeding and importing Shropshire Sheep a specialty.

JNO. A. MCGILLIVRAY, Q.C., Jerseyville Farm, Uxbridge, Ont., Breeder and Importer of Dorset Horned Sheep, Jersey Cattle, and Tamworth Pigs.

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Chester Swine a Specialty

Stock for Sale of all ages and both sexes
EGGS FOR HATCHING from L. Brahmas, Buff Cochins, Partridge Cochins, P. Rocks, S. G. Dorkings, Black Minorcas, S. White and Brown Leghorns, Rose Comb White Leghorns, B. B. Games, and Cornish Indian Games at \$1 for 12. Mixed eggs if desired; also Aylesbury, Rouen, and Pekin Ducks' eggs at \$1 for 9. A few grand cocks for sale of White and Brown Leghorns, Cornish Indian Game, Pyle Game and B. B. Game stock.

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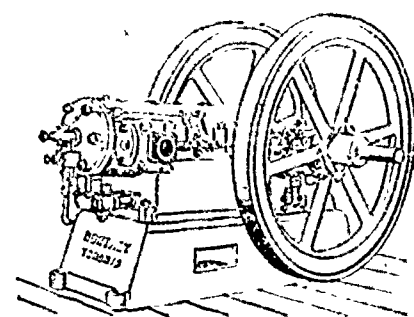
CHESTER WHITES.

I have on hand forty head of pigs from two weeks to four months, both sexes, pairs not akin, from imported and home-bred stock.

J. H. CHALK, Calton, Ont.

Northey Gasoline Engine

AN IDEAL FORM OF POWER FOR THE FARM



Simple, Strong, Economical. No handling of fuel. No smoke stack to throw sparks. No danger of explosion. Can be readily moved about from one place to another, and will do with the greatest ease all that the windmill or steam engine could do, at a far less cost.

Our booklet tells all about it. Write for it.

Northey Manfg. Co., Limited, Toronto

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ENGLISH BERKSHIRES

My herd won 206 prizes, 21 diplomas, and 5 medals since 1888. Choice stock of all ages for sale.

GEORGE GREEN, FAIRVIEW, ONT.
Stratford Station and Telegraph Office.

POLAND-CHINAS at Willisbroct.

ARE THE RIGHT KIND.
Brood sows for sale. Boars ready for service. Young sows ready to breed. Lots of pigs two to three months old; good long pigs with heavy bone. Mention FARMING.

403 E. WILLIS, Jr., Glen Meyer, Ont.

Large English Berkshires

I have a share of some of the best. I keep them for breeding more than for show.

Prices according to Quail y. Also S. L. Wyandottes, S. G. Dorkings, P. Cochins, B. Minorcas, S. Hamburgs. Eggs in season, \$1 per setting.

Geo. Thomson, Bright, Ont.
Sunside Farm, 2 miles from Bright Station G.T.R.

Chester Whites and Berkshires

For a boar or sow of any age that is right in quality, right in breeding, right in price, and guaranteed to be all right. Address,
JAN ESH SHAW,
Simcoo, Ont.

R. H. Harding,

Breeder and Importer of Dorset Horn Sheep and Chester White Swine
THORNDALE, ONT.

Anyone in want of a young boar fit for service, or a young sow for mating, would write to me before ordering elsewhere, as I have quite a few left at right prices.

OAK LODGE HERD

—OF—

..Yorkshire Hogs..

ONLY ONE BREED KEPT
A splendid opportunity to secure choice stock at moderate prices. One hundred young pigs to select from.
WRITE FOR PRICES.
J. E. BRETHOUR,
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Stock on hand for sale at all times of all ages, and at right prices.

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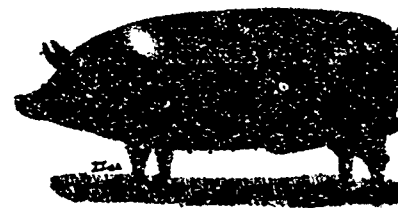
Young boars for service. Young sows in farrow. Young pigs from two months up. From first-class show stock. Prices right. Write for particulars. Mention FARMING.
O. R. DECKER, Chesterfield, Ont.

TAMWORTH AND CHESTER WHITE BOARS

Fit for Service
SOWS ready to breed, and a choice lot of FALL PIG now ready to ship, at rock-bottom prices, from the sweep-stake herd at Toronto Montreal, London and Ottawa Exhibitions, 1897. We pay express charges to your station, and guarantee safe arrival of all stock shipped. Pairs furnished not akin.
Drop a card before buying elsewhere.

H. GEORGE & SON
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Oxford Herd of Poland Chinas
Choice stock of either sex and all sizes, from 2 months up. Bred from the best strains known to the breeder.
Write for prices.
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TAMWORTH SWINE. For Sale Boars / for service. Sows in pig; also bred to order. Large quantity of young pigs. Address, JOHN BELL, Glydesdale Farm, Amber P.O. Agincourt Station, G.T.R. and C.P.R.

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Large White Yorkshires

Boars fit for service and young stock of both sexes from eight weeks to six months old for sale.
Write for prices.
WM. HOWE, North Bruce, Ont.

COLDSRING HERD TAMWORTHS.

Boars fit for service, sows in farrow, including two Bramford winners. Young pigs of different ages, and offering one of my stock Boars, Advance
—G.O.—, right in every way. Prices away down.
NORMAN M. BLAIN, St. George, Ont

FARMING

VOL. XVI.

JANUARY 10th, 1899

No. 19

Agricultural News and Comments

The third annual meeting of the American Tamworth Swine Record Association will be held at the office of the Secretary, Wolverine Citizens Building, Flint, Mich., on Monday, February 20th, 1899. Edwin C. Wood, Flint, Mich., is the Secretary.

Experiments conducted in Germany with eight cows show that when milked four times a day they gave an increase of 5.36 per cent. in the yield of fat, but only 0.44 per cent. in the yield of milk, and 0.65 per cent. in the yields of solids not fat over milking twice a day.

Volume IX. of the American Galloway Herd Book will be ready for delivery January 15th. This publication is sent free to members by prepaying fifteen cents postage. To non-members a charge of \$1.15 is made. Entries for Volume X are now being received by the secretary, Frank B. Hearn, Independence, Mo.

There are estimated to be 35,671,914 sheep in the United States. The wool of 110,000,000 sheep is required to meet the annual consumptive demand in the United States, and therefore the Americans will have to increase their flocks by 74,328,086 sheep before they will be in a position to supply the home demand for wool.

Professor Roberts, of Cornell University, states that the manure of one sheep for a year is worth \$3.17. This is good value, and increases in a large measure the value of keeping sheep on the farm. Twenty sheep, which is none too many for the average 100-acre farm to keep, would, if this estimate is correct, bring onto it every year \$63.40 worth of fertility.

Agriculture is receiving more attention among the negroes of the Southern States than it once did. One of the leading negro dairymen and agriculturists in America is Prof. J. W. Hoffman, Director of the State Colored College of South Carolina. He has made a special study of the science and practice of dairying, and is well fitted to carry on the important work he is doing in the South.

The average net price realized in 1898 at the Government creamery at Moose Jaw, N.W.T., was 20 cents per pound. This is an advance of two cents per pound over 1897. The patrons were charged four cents per lb. for manufacturing, leaving them 16 cts. per lb. The total output of the creamery was 38,000 pounds, which at 20 cts would equal \$7,600. Deducting \$1,520 for making, and we have \$6,080 divided among thirty nine patrons.

An exchange says: A man who does not advertise simply because his grandfather did not, ought to wear knee pants and a queue. The man who does not advertise because it costs money should quit paying rent for the same reason. The man who does not advertise because he tried it once and failed should throw his cigar away because the light went out. The man who don't advertise because he don't know how himself should stop eating because he don't know how to cook.

A new industry has been started in Oregon. It is the manufacture of pine needles into a fabric very like woollen cloth. It is the intention at the start to make material of the consistency of excelsior for mattresses. Afterwards wool used for underclothing, bandages and other purposes

where soft and pliable fabric is required will be manufactured. Only the inner fabric of the needles can be used for the latter, and the process is expensive, but not more so than that of the manufacture of lamb's wool.

The grade of eggs required for the British market is one that will weigh a pound and a half to the dozen, and for every half-pound which eggs weigh less than fifteen pounds to each ten dozen, the value is lessened by about one cent per dozen. It is believed by those engaged in the import trade that in large eggs the albumen is thicker than in small ones, and that ninety per cent. of the stale or bad eggs are small eggs with white shells. Shells of a brown color are preferred, and must be clean without having been cleaned.

A new market for American wheat is opening up in Japan. In 1895 that country imported from the United States 484,510 pounds of wheat. In 1896 these imports had increased to 2,451,689 pounds, and in 1897 to 12,467,466 pounds. Corea is the greatest rival that the United States has in this trade. For the last two years the United States sent to Japan annually over 31,000,000 pounds of flour as against 13,000,000 pounds in 1895. This trade with Japan is growing very rapidly, and there is no reason why Canadian wheat growers should not have a large share of it.

In 1896 Great Britain imported 132,450,110 dozens of eggs valued at \$20,365,326. Of this quantity France supplied 32,757,760 dozens, valued at \$6,196,240; Germany 29,304,860 dozens, valued at \$3,806,322, and Russia 24,610,680 dozens, valued at \$3,660,253. The important point to notice in these figures is the great difference in the value of the imports from France and Germany which closely approximate one another in quantity. The average price at the point of export was 15.3 cents per dozen. The selling price in England varies from 31 to 34 cents in winter for French extras, to as low as 17 to 18 cents for Canadian pickled stock.

An agricultural college for the Maritime Provinces is likely to be established at some Nova Scotia point. Mr. W. C. Archibald, of Wolfville, N.S., has recently been on a visit to the Ontario Agricultural College, Guelph, with a view to learning something of how this institution is conducted. There are five students at Guelph this year from the Maritime Provinces, and every year a number go to colleges in the United States. Mr. Archibald is of the opinion that if a good agricultural college were organized there would be no need for young men in the lower provinces to go so far for an education and that a good attendance could be secured at the start.

Experiments in Iowa and Pennsylvania seem to show that crude petroleum or oil can be used as a valuable adjunct for roadmaking. After the dirt road has been prepared and smoothed in the ordinary manner it is claimed that the application to the surface at the rate of one barrel to 100 feet of road twelve feet wide, will cause the surface when dried to become hard and impervious to rain. The present cost of oil at the wells in the United States is 90 cents per barrel. At that rate the oil for a mile of road would cost about \$47.50 not including freight. If the plan proves successful it will be the cheapest yet found for meeting the crying need of the country for good roads.

Breeding and Feeding Poultry

Breeding and feeding count in poultry raising as well as in regular live stock farming. In poultry breeding the farmer should aim to secure the largest fowls possible. The fancier may make money out of the small game cock orbantani hen, but the farmer cannot; large fowls bring more on the dressed poultry market, and as they lay equally as well as the smaller birds are more profitable. To increase the size and keep up the quality of the fowls only birds that are over one year old should be used for breeding purposes. At that age they are mature, and the vitality that would otherwise go to finish development will be transmitted to the progeny. In breeding should not often be tolerated for more than two years. When it is desirable to intensify or perpetuate any fine qualities possessed by a male, or to improve these qualities in a female, mate a cock back to his pullets, or in other words to her pullets of his own get. That is if the hens he has been mated to the pullets were not akin to him. It would not be desirable to carry this further than one season. Select stock for breeding purposes that are healthy and vigorous and that have made rapid growth while young.

In feeding poultry the laying hens should be separated from the non-producers. For egg production it is not necessary to have the poultry fat. In fact a different method of feeding from that used for fattening purposes should be adopted for egg production. To produce eggs a large amount of nitrogen and phosphates is required. Bones pounded or ground are excellent at all times, as they contain nitrogen and phosphates, and one of the best sources for producing the elements of the white of the egg is lean meat. Of the ground foods bran is the best, because it contains more phosphates than meal. Cut clover is also a source of nitrogen and aids digestion as well as serving to supply warmth. It is not well to feed too much, just enough so that none of it will be left over. To produce eggs the hen must be in perfect health, and if the poultry-house is warm less food will be required.

A different method should be followed in fattening chickens. The object here is to produce meat and a different kind of food is required. For fattening purposes poultry should have at least one meal of soft food each day. The general practice with feeders is to give this in the morning. This can be made by mixing meal of any kind with water or skim-milk. At the Government Poultry Fattening Station at Carleton Place last fall 133 chickens were fattened for the British market. These were fed three times a day for the first four weeks on peas, oat-barley and wheat, mixed and ground fine and mixed skim-milk. The experiment was carried on for six weeks,

and for the last two weeks the poultry were fed with a cramming machine twice a day. As the ordinary chop was too coarse for this purpose kiln dried oats, ground very fine and mixed with tallow and skim milk, were fed for the last two weeks. The poultry thus fattened were shipped to Great Britain and netted seventy cents per pair after paying all cost but labour, which is good proof that this method of feeding is an economical one.

Feeding Beef Cattle

There is no more important work on the farm than feeding and fitting cattle for market. In order to reap the greatest amount of benefit from the work an accurate and definite knowledge of the different feeding stuffs is necessary. Too many farmers attempt to feed cattle when they do not thoroughly understand what is required in the way of care and feed to produce the very best results, and, in consequence, we have brought to market a lot of inferior and unfinished beef. Attention should be paid to the kind of animals that are put up for feeding purposes. A scrumpy, ill-bred, and ill-kept steer will not make good beef, no matter how well it is fed.

A great many good beef cattle are fed in Ohio, and the following pointers given by Geo. E. Douglass, formerly of that state, in reply to a series of questions in the *Ohio Farmer*, will be of value to cattle feeders here:

D. W., of Buchanan, Ohio, says he has a lot of 1,100-lb. steers that he wishes to feed, and asks the following questions: (1) "Why did you feed bran?" (2) Would not corn, cornfodder, and straw do? (3) Is three months' feeding enough? (4) What time in the year would you recommend selling? (5) Were your cattle confined in shed? Mine will have a large shed and a five acre lot."

We feed bran because of its protein, and because we are a firm believer in the balanced ration for the profitable feeding all kinds of live stock, and at the time we bought our cattle and the feed bran was the cheapest available protein food. It is fed for three reasons, first, to prevent the cloying of the animal's appetite; second, to make a more bulky grain ration; third, assisting the assimilation of the whole amount of food, and, like all other protein food, gives the animal a better appearance of coat and skin. With cheap corn and 1,100-lb. cattle, we would feed but little bran after thirty to fifty days' full feeding.

(2) Yes. There are thousands of cattle fed and shipped to the Chicago market that have exactly such a ration, but they are fed where straw and corn fodder are worth nothing and the corn from seven to fifteen cents per bushel, and it requires from eight to thirteen months' full feeding

to finish them—a practice that would be suicidal to an Ohio farmer. Cattle can be fattened so as to bring fair prices on such a ration in 120 to 150 days. To finish them for market toppers is another problem.

(3) The length of time cattle should be fed is as indefinite as anything imaginable, in fact, one disadvantage the small feeder has to contend with is the difference in the ripening of his bunch of cattle, for, no matter how even they are when put on feed, they will not remain so, because some will get larger, some will get fatter, while others do not do so well in either respect, and when any get behind they cannot catch up. Theoretically it should not be so, but the man that carries the feed basket knows it is. There are two times in the feeding period when it is better to sell than at any other time; the first is just about the



A GROUP OF FARM POULTRY, ROSE COMB AND SINGLE COMB WHITE LEGHORNS.

time the people think the cattle fat. They have then made their growth and are what some call "slippery," and up to this time there is little need of the balanced ration, and, roughly guessing, it would be about two months of corn feeding on good pasture. This is just the time we want to begin to feed, and we think the most profitable time to display the feeder's art, because from then till a finished beef is made it requires judgment, care, and attentive feeding, and probably four or five months' time.

(4) We regret we cannot answer this question, but will say that our friend cannot fail to find a ready market for strictly prime, corn-fed cattle at any time before June 1st, 1899. The only requirement is that they be well finished.

If for any reason he should desire to sell before they are finished probably as good a time as any is early in January.

(5) Our cattle were fed in a straw shed, closed on the west and north, and had a yard of less than half an acre, with a straw-stack and trough of running water.

D.W. says: "Give any other information you can, as I have never fed any cattle before, and it seems to be man's misfortune to do what he should not." We will give a few "don't's." Don't feed over six bushels of corn to twenty cattle per day to start with. Don't increase the feed too fast; make haste slowly. Don't fail to sweep the troughs clean twice a day. Don't feed at irregular hours; 6 a.m. and 5 p.m. were our hours. Don't neglect having salt, either rock or common, constantly within their reach. Don't neglect abundance of clean water. Don't have too few pigs following the cattle; generally they represent the greater portion of the profits. Don't neglect a good bed, because eating and lying down is their business—getting fat. Don't expect to get rich feeding cattle one year.



SILVER-LACED WYANDOTTES.

	Qrs.	Qrs.	Qrs.
1896..	296,000,000	1893. .	310,000,000
1897....	284,000,000	1894....	324,000,000
1898	341,000,000	1895 ..	403,000,000
Triennial average—			
	307,000,000	314,000,000	298,000,000

Perhaps this arrangement of these figures supplies the true key to the apparent mystery why prices of wheat this season do not fall so readily as they did in 1894-1895; for we see that, with eight to ten million more mouths to feed in America and Europe, the average production of wheat in the present triennium is 7,000,000 qrs. less than in the preceding period of three years, and this notwithstanding the fact that the yield of the present season exceeds that of 1894 by 17,000,000 qrs."

Some Valuable Hints on Sheep-Raising

Sheep-raising is one of the leading industries in Australia, and thousands of sheep are kept there where only one is kept in Canada. The following advice to farmers, given by one of our Australian exchanges, will be of benefit to sheep-raisers in this country:

"Every farmer should keep sheep. They help to clean the land of weeds, fertilize it, and give a profit besides, if the right sort are selected. The best sheep are those that will produce the most wool of good quality, and give the largest carcase. Where sheep are bred and kept extensively, size is not of so much importance. The smaller sheep, with a heavy fleece of superior wool, will pay better than a large animal with a light fleece, as these are shorn three or four times, and sold but once; and 1 lb of wool each time extra, at 6d. per lb., would leave the farmer a gainer in the end. It will pay well to buy good sheep, even to sell again, as good sheep will always bring a good price. Great care must be taken not to overstock, because if the sheep get poor the ewes will give less wool, and the lambs never grow to the same size as those that are well fed from first to last. Ewes with lambs require more food than dry sheep. In buying for breeding, old ewes should be selected, if the buyer is not a good judge of sheep—full mouth, or even older—as the young sheep are generally culls, with differing classes of wool and other defects. The buyer of wool does not want four or five classes of wool in each bale, as he must sort it and resell the kinds not required in his business; therefore, he can give more for wool that is all of one class. Then suitable rams must be procured, and these can be hired from any well-known breeder if the farmer cannot buy. Small owners would do better to hire, as they get a change more frequently, and

An English View of the Wheat Situation

From the Liverpool *Corn Trade News* we take the following summary of the world's wheat crop for 1898, the general trend of which is not in the direction of lower prices:

"Rightly or wrongly, buyers throughout the world have got it into their heads that the crop of wheat recently harvested is more than equal to any requirements that can be placed upon it in the current season. The following estimate of the crop, after making allowance for the ascertained abundance of our own yield, and the somewhat theoretical amplitude of the Russian and the somewhat theoretical deficiency in the Roumanian Bulgarian, may prove about correct:

	1898 Qrs.	1897 Qrs.
Europe	188,000,000	144,000,000
America	103,000,000	91,000,000
Asia	40,000,000	41,000,000
Africa	5,000,000	4,000,000
Australia	5,000,000	4,000,000
Grand total	341,000,000	284,000,000

The comparison with former seasons, on the same basis, is as follows:

need not be troubled with keeping the rams till next season. Rams should not be used more than two or three seasons. For old ewes use four or six tooth rams, as they match better than older animals. Always get a ram with a good fleece, nice shape, robust, and a perfect constitution. Put the ewer, when lambing, in a paddock by themselves, if possible. After lambing is over, shift the ewes from place to place, as they do much better when changed in this way. When the first lot of lambs has been got ready for shearing, cull out a few of the worst of the ewe lambs and old ewes and sell to the butcher. At the next shearing cull again, culling out those that have any defect, and keeping close to one class of wool. By breeding only from the best in a few years the flock will be a good one. I have noticed that those who did not breed sheep, but only bought, appeared to make very little out of it. In buying sheep there are more risks run, which cause losses, or make the farm dirty with weeds. Sheep pay the pastoralists, and surely they ought to pay the farmer, who not only supplies his household with meat, but also has the wool, and can sell a number of lambs to the butcher at a good profit every year."

Care of Winter Layers

During November farmers usually begin to cull over their flocks, disposing of any surplus and reserving the hens for egg production. But with the average care the farmer gives his hens, eggs will be scarce through the winter, and the flock comes out in bad condition in the spring. If eggs are wanted, the flock must not be neglected.

The scratching shed is the greatest boon that was ever contrived for an addition to a poultry house, and there is no farmer, large or small, who can not afford such an addition. It is positively true that no return in eggs can be expected through the winter, when eggs are a good price, unless the flock is supplied with quarters different from the hen-roost in which to spend their time on stormy winter days.

I find from experience that it is not necessary to be supplied with expensive appliances, such as bone and clover-cutters, clover meal, cut bone, etc. Most of farmers are not in a position that they can be at all times supplied with green bone to cut, nor with a sufficient supply of meat scraps to feed fifty or one hundred hens. Hence to promote egg production through cold weather we are obliged to resort to the care and mode of feeding which we have at hand.

We always keep a good supply of oyster shells in small boxes, in our sheds, where the hens have easy access to them. We have found that forest leaves make the best litter for scratching sheds, as the hens always seem jovial when turning over the leaves in quest of the next grain of corn or wheat. These leaves we always gather in autumn, and in our latitude they may be gathered in mid-winter oftentimes.

If profitable egg-production is expected one should follow up a steady habit of feeding and a regular diet. We feed twice a day, morning and evening. It is not necessary that it be a steady diet, nor a widely mixed diet. I would not advocate a rotation of corn in the morning and corn in the evening and the next day the same thing over, as a great many of our farmers feed. We feed a warm mash composed of bran, cornmeal, table-scraps, etc., in the morning. This is usually prepared in the evening and left to soak in boiling water over night, and not fed red hot, as some advocate, but just lukewarm. At the same time, or an hour or so later, a mess of cracked corn and wheat screenings, mostly wheat, is scattered into the litter and

the flock is left for the day to attend to their own duties.

In the early evening a ration of corn is thrown among the litter for the flock to scratch out before going to roost. It is just as necessary to water the flock as it is to feed them, hence they are watered daily, usually with warm water. I find that it does not pay to feed to extremes one day and stint them the next. Most of this is done during changeable weather. A few warm days come and we imagine that they can get out and forage some. True, they they can, but they should be fed their usual ration and then let forage; they will not get too much to eat. By the way we never keep any hens yarded, but let them have the full range of the farm.

I do not believe in feeding hot feeds, nor highly seasoned ones containing cayenne or black peppers, ginger, etc. I deem them of more injury than good. Hens will not lay that are infested with lice or mites, and I do not think it necessary that a flock of poultry be allowed to get infested with vermin. Our roosts are all on the level in the poultry-house, and by a mere contrivance we are able to keep them clean of vermin. A barrel hoop is covered with coarse coffee-sacking and a long handle attached to it, making a "duster" similar to a small dip net. Armed with this contrivance, partly filled with insect powder, we proceed to the poultry house after the flock has gone to roost, and opening the door, turn our "duster" onto them. It will be found that on being disturbed they will ruffle up their feathers, and by holding the "duster" over them and tapping the handle with a small block, the flock can be most effectually dusted in a short time. Insect powder is



LIGHT BRAMHA COCKEREL, HEN AND PULLET.

cheap—too cheap to allow an infested flock of poultry on the farm.—*Geo. W. Brown in Ohio Farmer.*

The Quebec Dairymen Meet

The 17th annual convention of the Dairymen's Association of Quebec was held at Valleyfield, Que., during the second week of December, and was in every respect one of the most successful gatherings in the history of the association. There were over 600 persons present, and the first evening session was graced by the presence of Mgr. Eymard, Bishop of Valleyfield; Hon. S. Fisher, Dominion Minister of Agriculture; Hon. F. M. Déchène, Commissioner of Agriculture for Quebec.

The reports of the Inspector-General of syndicated butter and cheese factories, Mr. E. Bourbeau, and his assistant, Mr. J. A. Plamondon, were most interesting. The former urged the necessity of more attention to temperature and ventilation in the cheese curing-room, the neglect of which was responsible for most of the complaints regarding "off flavors" in cheese. The latter reported having visited 305 factories in thirty-three syndicates, superintending the work of thirty-three local inspectors. The

small factory is the one evil the Quebec dairyman is confronting in his way to success and prosperity. Most of the factories being poorly built and improperly drained, it was suggested that the Provincial Board of Health might be usefully invited to take an interest in the matter; its inspection ought to result in the improvement or in the closing of the defective factories.

Mr. J. H. Scott, of A. A. Ayer & Co., in discussing the outlook of the cheese industry of Canada, condemned the shipping from the factory and the exportation of immature cheese.

Mr. A. W. Grant, cheese exporter, Montreal, took up the question of cleanliness, and alluded to a visit to the Cheddar Valley in England, where cheese is commanding 15 cents per lb. Such care is taken to maintain the reputation of this cheese that he frequently saw farmers weeding out their pastures in order to get rid of all plants possibly injurious to the quality of the cheese. Mr. J. D. Leclair, superintendent of the St. Hyacinthe Dairy School, presented his report, which showed the school to be in a flourishing condition.

Mr. D. M. MacPherson, Lancaster, Ont., in discussing pig-raising for bacon, alluded to the fact that Canadian bacon is now fetching from 10 to 15 shillings more per cwt. in the English market than American bacon. He calculated the average price of the bacon hog at 4c. per lb., and the cost of raising it at 2c. per lb. He summed up good farming as good feeding. "Feed the land and you get good grain; feed the horse and you get good work; apply the same rule to the cow and the pig, and you get good milk, good butter, good cheese, and good bacon."

A practical demonstration of the value of the curd test in exposing bad flavors in milk was given by the syndicate inspectors. Mr. G. A. Gigault, Deputy Minister of Agriculture for Quebec, announced that his department would give a subsidy to cheesemakers to enable them to fit up first-class curing-rooms in the factories, and that the dairy association make the conditions under which the grant may be secured. Mr. H. S. Foster, president of the Bedford Dairyman's Association, drew the attention of the dairymen present to the wide and discriminating divergence in railway tariffs in the transportation of cheese. He proposed that a standing tribunal be organized in Montreal to decide on the weight, quality of cheese, butter, etc., which was favorably considered by the majority of the makers present. At the evening sessions interesting limelight views were given by Mr. R. A. Lister, Dursley, England, Mr. J. de L. Tache, and Mr. E. Castel. The officers for 1899 are: Honorary president, M. MacDonald, M.L.A.; president, J. A. Vaillancourt, Montreal; vice president, J. C. Chapais, St. Denis de Kamouraska; secretary, E. Castel, St. Hyacinthe, Que.

Jubilee Poultry Show

The poultry show which takes place in this city on Tuesday, Wednesday, Thursday, and Friday of this week promises to be one of the best of its kind ever held in Canada. Up to time of going to press the following entries had been received by the secretary: 1,862 chickens, 65 turkeys, 52 geese, 81 ducks, and 300 pigeons, making a total of 2,360 entries. In addition to this a number of entries have also been made in the dressed poultry classes and other branches of the show, so that it is safe to estimate that the total entries will be fully 2,500. This splendid array of the best that this continent can produce in the poultry will make a show that no breeder of poultry or farmer can afford to miss seeing. The show will be held in the Pavilion, Horticultural Gardens, Toronto, and is easy of access by the street cars.

A series of meetings of interest to poultrymen and farmers will be held during the show. On Tuesday and Wednesday evenings the American Poultry Association will hold meetings, and on Wednesday afternoon the delegates will visit the Agricultural College, Guelph. On Thursday

afternoon the annual meeting of the Ontario Poultry Association will take place, when an address will be delivered by Prof. Robertson on the export poultry trade.

National Live Stock Convention

In our issue of December 20th we referred to this gathering, and suggested that Canada's live stock interests should be represented there. We do not know whether any of our live stock associations have made a move in the matter, but we are still convinced that Canada's interests should be represented there.

The meeting takes place at Denver, Colorado, on January 24th to 27th next. Last year over 1,200 delegates, representing the stock interests of nearly every State and Territory in the Union, were present, and we are informed by the secretary, Mr. C. F. Martin, Denver, Colorado, that the present convention will be more largely attended by delegates from all sections than was the last one. Among the subjects that will be discussed will be the quarantine regulations; the dipping of cattle to prevent Texas fever; the extension of what is commonly known as the 28-hour law; prohibiting the importation of animals physically unsound; the bounty law, and reciprocity with Mexico. How this last one will affect the American live stock interests we do not know. If it means an exchange of live stock between the two countries without any tariff or quarantine regulations, countries to the south of the great republic are receiving greater consideration in this regard than those to the north. A glance over these subjects would lead one to believe that if Canadian live stock interests were strongly represented the question of a recognition of the Dominion records in shipping purebred stock to the United States might be discussed with the American stockmen, to the mutual advantage of all concerned.

Local Farmers' Clubs

It is now generally admitted that the oftener farmers come together to discuss their own affairs the better. During the past ten years the Farmers' Institutes have done more for the farmers of this province in the way of encouraging better methods in farm practice and making life in the country more pleasant and profitable than many of them are willing to admit. This good work performed by our Institutes can be supplemented, to a very great degree, by the organization of small farmers' clubs. As we pointed out some weeks ago, in discussing this question, they would be feeders to the Institutes, and make the meetings of the latter more successful and interesting.

Farmers' clubs have been in operation in some parts of Ohio for several years, and seem to be meeting a long felt want in the community in which they are located. Mr. John Gould, of Ohio, in reply to a query in the *Country Gentleman*, gives a detailed account of the working of the club of which he is a member, and from which we take the following:

The club is composed of twelve families, the members of which are the attendants upon the meetings, and one other family enjoys the distinction of being an honorary member. The twelve families are somewhat scattered, residing in five townships, and the extreme distance from the two most distant members is about fourteen miles, and from east to west about eight miles. No greater membership than this is allowed, and thirty-five people may be set down as about the average attendance, the point being to restrict the membership so that the meetings are not beyond the possibilities of entertainment by any of the members. Where the members have friends visiting with them at the time of a regular meeting, they are at liberty to take them as guests. The children are welcome, and the meetings are made part of their instruction. The membership is made up of the best farmers.

The meetings are held monthly, each family taking it in turn, so that the circuit is made each year. Each enter-

taker provides the dinner and lemonade, this being deemed better than the usual "all carry something and have a picnic dinner." While the law is that the dinner should be plain, the actual bill of fare is left to the entertainer. The family has but one dinner to look after during the twelve months, and this is found in every way better than the dinner of the contributed basket. The committee on program meet in October, and make out a program for the full year, assign topics, give out the subjects for the essays, publish the names for recitations and "orations" for the boys and girls, notify the musicians of their parts, and so, for fourteen months ahead, all know when and where to meet, who is to take part, what part, and the order. This program is printed in book form and mailed to each family. The fee of membership is somewhat elastic, being governed by the actual needs of the society, and only amounts to a few dollars in the year.

There is a regular order of business for each meeting. Every one goes in the forenoon, and after dinner the company is called to order by the president, the minutes read and the regular program taken up. The roll call is often responded to by quotations which frequently take a wide range, Joe's ideas in farming often being drawn upon. Then some lady gives a resume of current events—the most striking things she has noticed in her previous month's reading. Recitations follow, and then the men take up some timely farm topics, followed by a lady on some domestic theme, or possibly wholly literary. Some topic is now and then "broken up," and different divisions of it assigned to different ones, and the final speaker puts the whole together so that it may be seen in its new light. Criticism and discussion follow, in which all are free to join. Farm troubles are brought up, and each seeks to aid the other.

At each meeting the men look over the plan and style of farming of their host, and the ladies talk flowers, lawn improvement, swap receipts for cake and pickles, and all make ready for the dinner and dessert. From start to finish the social is well mingled with the practical and helpful things which make for the better in farm life and management, and when, about 4 p.m., the carriages are brought, each and all say that the meeting was the best one yet.

CORRESPONDENCE

More "New" Methods Suggested for Conducting a Milk Test, "Wise and Otherwise"

To the Editor of FARMING:

In a multitude of counsel there is wisdom, or it may be confusion. Let us notice the *new* plan. Since a 1,000-lb. cow eats 40 lbs. ensilage and produces 1 lb. butter and a 1,100 lb. cow eats 44 lbs. ensilage and produces 1½ lbs. butter, etc.

All that is wanted is to tell how much a cow eats and how much a cow gives in her weight; no use whatever for the Habcock scales, lactometer, or anything else. There would then be no use for the presence of the cows. All that is wanted is the weight, and then, W. E. B. says, we can figure it out "almost mathematically." Well, as this is holiday time, I suppose it is no use taking life too seriously; but if we can get at the weight of these cows, and leave them at home, how much trouble we would save for all hands. I will tell you how that can be done. There is a quack doctor over in Michigan, and if you are sick and send him a lock of your hair he can tell you all that ails you (and a good deal more), and I think if we would take to the milking test a lock of hair from our cow's tail W. E. B. could tell us the exact weight of the cow. That would be a much easier thing to do than tell how much a cow would eat and produce from her weight.

Whilst the English tests recognize that the small cow is at a disadvantage in competition with the large cow, I think they are wise "in not going far enough" and laying down a

fixed scale, because a cow has an individuality all her own, as experiments have shown. In a general way it is stated that a large cow eats more than a small one, but in proportion to her weight she eats less. Also, a cow producing 3 lbs. of butter would eat more than a cow producing 1 lb. of butter (regardless of weight), but in proportion to production she eats less. If this were not so there would be no object in having a better cow.

The little Jerseys ate more than the big Shorthorns in the World's Fair test. As they also produced more they proved themselves the better of the two breeds, with butter at 40¢ per lb. Again, bulletin 149, Michigan Agricultural College: "A study of the experiments shows conclusively that an expert feeder varies the size of the ration, not according to the weight of the animal alone or primarily, but according to her capacity to receive and her ability to yield." This I know is so from my own experience. The heifer Daisy Texal 2nd, in present condition, does not weigh 1,000 pounds, yet she was ahead of all the 36 cows but Calamity Jane in the Brantford test (and it is no disgrace to come behind her), and she asked no odds because of her weight, nor, to be candid, is she entitled to any, because she can assimilate and digest as much food as any cow in America, and that is why I have great expectations for her.

Again W. E. B. says "Fat gives milk almost its entire commercial value." I had an idea that it was the total solids. I believe there are some who claim that the solids, other than fat, are in proportion to the fat; but I don't see that the facts bear out any such conclusion. Take the following table from the recent dairy test and add the product of four cows of each breed together and it shows that the difference is not due to any one cow, but is a breed characteristic:

Breed.	Lbs. Solids Not Fat.	Lbs. Fat.	Total Solids.
4 Ayrshires . . .	21.608	8.847	30.455
4 Holsteins . . .	44.282	15.903	60.185
4 Jerseys	19.725	10.680	30.405

From this it will be seen that a test that fails to give value for total solids is "a very faulty and partial affair", and I will add that the rules that govern the Provincial test are fair, and show which is the best cow for Canadian dairymen as a whole. A cow that cannot win under those rules has no right to win. We want a cow for the production of cheese and butter. The total solids is what makes the cheese, and when it comes to butter-making the solids-not-fat are in the skim-milk, and our dairymen do not forget to take their skim-milk home (and if they get a chance, somebody else's too). Why? Because it has good value for anyone with pigs to feed and calves to raise. In fact the skim-milk is worth 25 per cent. or 30 per cent. of the whole milk at prices received by patrons for their butter fat. Indeed, one Professor says skim-milk is really worth more than the fat, because it contains those elements which are lacking in other food. So looking at it from any point of view we find that all products are valuable and should receive due value.

But what should be the purpose of these tests anyway? Not altogether to show which is the best breed. Even if such could be conclusively shown, we must make due allowance for individual preference; and, even if one breed was clearly shown to be the best, there would not be enough to go around. Whilst we may differ as to which is the best breed there should be no difference, as it is good for the country that all breeds should advance in productiveness. The question is then how best to encourage and stimulate breeders to greater efforts. Whilst I have a decided preference (and have tried to give some proof for the faith that in me lies) I am content to lay the facts and records before the public and let them use their own judgment. Look at the question from the higher and broader view of our country's good rather than as a breeder.

I considered from the start that it would be more practical to give each breed a class as in the Provincial Dairy Test, as it is poor encouragement for a breeder to enter a

test if he has not a good chance to win at least in his class. I strongly hold to the view that the progress of a breed will be best attained in competing in a test rather than under the score card.

I am willing to admit that a test may not be always right, some big worker may overcome a cow of more dairy form, but there are also great mistakes made under the judging system, and I hold that the test will be oftener right in showing the best producer. We talk of form or breed type, which is generally another name for breeders' fad, what would be good type in an Ayrshire would not do at all in a Jersey. Should this be so? Are not all breeds alike bred for milk and its products? As all have to come finally before the same judge, type is simply another name for fancy. Of course the wealthy have a perfect right to develop any fancy points, even if it is at the expense of the more essential ones, just as a gentleman we read of who saw a drake with two curls in his tail feathers and so went on and developed a breed that way; but in a country like this of hard-headed practical dairymen who keep cattle for profit the good producer is the cow that is wanted. There are hardly two judges that will place cows the same, but with the scales sixteen ounces make a pound every time, and the Babcock and lactometer are equally constant and reliable.

Yours truly,

GEORGE RICE.

P.S.—Daisy Texal 2nd was born September 16th, 1895, not 1894, as stated in former issue. G. R.

Woman's Influence in the Home

To the Editor of FARMING:

DEAR SIR,—As the year of '98 has passed, and we are already entered upon a new and untried year, I would like to ask your lady readers to take a peep with me at the annals of the past. Then let us pause and consider whether we are making the best use of our present opportunities, in order that we may be better prepared to grapple with the problems of the future.

In thinking of the history of olden times our minds revert to the early Britons and the Roman Conquest, or the struggle for constitutional and religious liberty during the time of the Stuarts, or, to come to our own country, we all remember the stories of the struggle between the Indians and white men, also the stories of the settlement of our country by brave men and women, who crossed the Atlantic to found new homes for themselves and their descendants. But what especial interest have we as women in these records? In Briton, before the Roman Conquest, women worked side by side with men for the good of the home and the country. At the death of a British chief his wife took the reigns of government. Thus we hear of Boadicea and her daughters urging the scattered tribes to action, and eventually dying in defence of their country. In the case of the Stuart period we all know the important part the women of that family took in the history of their time. We have the zealous, although bigoted, Mary; the wonderful statesman or stateswomanship of Elizabeth; the co-operative work of Mary and William, and the successful reign of Queen Ann, the last of her line.

In thinking of the struggles between the white and red men, our minds will at once conjure up the picture of the Maid of Vercheres nerving the men of the garrison, who were ready to faint and surrender, to action, and, with their aid, holding the garrison until relief came.

As for the brave women who faced hardships and difficulties in settling our country, too much cannot be said. In many cases they left the homes of refinement and culture, and were willing to face, side by side with our forefathers, the dangers and difficulties of Canadian bush life, and what have they left us? One of the grandest countries in the world; but, is that all? I think the richest legacy our grandmothers bequeathed to us was a spirit of noble determination and progressive action. But are we taking advantage of this legacy? How many women, especially in the country, are keeping in touch with current events,

either in the world at large or with those which more immediately concern themselves in the home? I think our grandmothers would consider all their sacrifices and teaching thrown away if they could hear many of their descendants to-day when, urged to try new and improved methods in what is generally considered women's work on the farm, such as the care of milk, the making of butter and the preparation of food, we hear the cry, "My grandmothers made good butter, etc., by the old system, and I guess I can do the same." Dear reader, this is a mistake. The women of the past certainly succeeded in what they undertook; but why? Because they used the most advanced methods then attainable. But, if they had acted on the plan many of the women of to-day lay down, they would have remained in the old country, content with the old systems, and would never have been willing to strike out in an unknown and untrodden path. I am sure their lives and examples should spur us forward, give us a thirst for knowledge and a determination to acquire it.

If women in the past have taken an active part in the destiny of the nation, what about the women of to-day? To my mind there never was a time when women have come to the front as at the present. This is certainly a women's period. The whole world seems to be looking to the women of to-day for the bettering of the race. Let us, then, not fail in our trust. We all agree that the home is the foundation of the nation. How is this foundation to be well and securely laid if the architects—mothers, sisters and wives—have not a clear and intelligent idea of the structure they are erecting? As the corner-stone of the structure is the physical and mental development of the growing boys and girls, it is necessary that the mothers should provide the foods most suitable for this development. But, how few mothers in the past have been able to do so, owing to a lack of scientific knowledge along these lines themselves! I think the day is not far distant when this knowledge will be within the reach of every young woman in the country. Technical schools for the instruction of girls in all household arts are being formed in the United States, and many Canadian women are advocating their establishment here. They are being ably seconded by nearly all our leading educationalists.

Mrs. Rorer, a well known speaker on this subject, was induced by the Experimental Union to deliver addresses in Guelph at their last session. Many were inclined to be skeptical before hearing her, but at the close of her lectures were fully convinced that there is not a greater need in the country to-day. Those who have studied the science of agriculture and the scientific feeding of animals all realize the great necessity there is that a scientific knowledge of foods used for human beings be understood. In one of Mrs. Rorer's addresses she made the remark that the Ontario Agricultural College seemed entirely a man's institution. I don't think she could have heard, at the time, of the Dairy School in connection with it, where ladies are not only allowed, but are warmly welcomed by everyone. This school is open to every Ontario girl, especially those from the farm. Scientific dairy work is taught in all its branches, giving one an insight into the vastness of the work and showing the wonderful opportunities for thought and research, thus removing the idea of drudgery that so many farmers' daughters have of dairy work. The system carried out in the Home Dairy is the same as ought to be practised in every home on the farm. A three months' course at this school would prove a lasting benefit to any one who would make an effort to attend, both from a financial and intellectual standpoint. The school opened on January 4th. I would again like to urge every one that can do so to attend.

Thanking you for this space in your valuable paper,

I remain,

R. B. M.

THE BEST AGRICULTURAL PAPER IN CANADA.

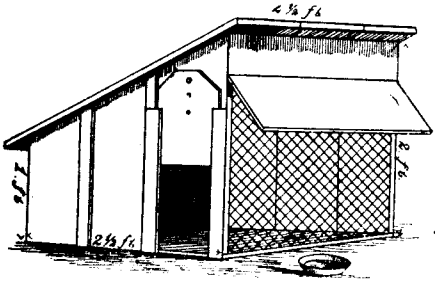
RUSSELL, Dec. 23rd, 1898.

Please find enclosed \$3.00 for my subscription and renewal from Dec., '96, to Dec., '99. I don't see how we could do without FARMING. I think it is the best agricultural paper in Canada.

Yours, J. H. PILLAR.

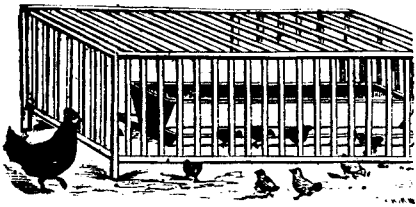
CANADIAN JERSEY BREEDERS' ASSOCIATION.

The annual meeting of the Canadian Jersey Breeders' Association was held in the Board Room of the Albion Hotel, Toronto, Friday, Dec. 30th last. The attendance was the largest in the history of the Association, many



Chicken Coop.

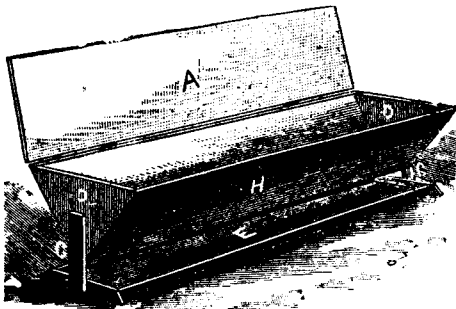
prominent breeders being present from different parts of the province, who were much pleased to meet Messrs. Robbins, of Indiana, and Norton, manager for Miller & Sibley. Our American cousins were kindly invited to take a seat and be one of ourselves. The value of the meeting was much enhanced by the presence of Mr. Valancey E. Fuller, Cor.-Secretary of the American Jersey Cattle Club, New



A Plan for Feeding Chicks.

York. Mr. Fuller is looked upon as the "Father" of the Canadian Association, and the one man more than any other who has done more for the Jersey interests in Canada and for that matter in America.

The President, Mr. B. H. Bull, Brampton, called the meeting to order, and after routine business called on



A Self-Feeder for Young Chicks.

Mr. R. J. Fleming to introduce the subject of *A Canadian Jersey Herd Book*. The speaker did not see any reason why we could not be thoroughly Canadian in this as in other matters. Why not have the same strict rules as the A.J.C.C. and retain the money paid out for registrations and transfers in our own country? Mr. Fleming also maintained that the cost of registration might be reduced if we had our own Herd Book and that a

Prevention of Cruelty to Horses.



Many a poor horse, utterly run down by impoverishment of blood and its accompanying ills, is blamed for laziness and harshly treated. The use of

DICK'S BLOOD PURIFIER

would strengthen such an one, would fortify him to endure fatigue; enable him to accomplish work

without loss of tissue and make him a cheerful, willing worker. It pays to use Dick's Blood Purifier. It greatly increases the flow and richness of a cow's milk.

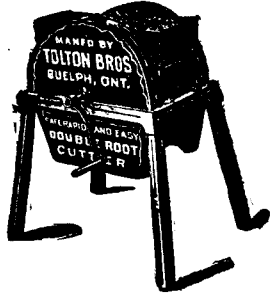
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Guelph

Golden Link Herd of Berkshires

I have the 1st-prize boar under 12 months at Toronto for sale, and 1st at Western Fair; also 2nd prize boar under 6 mos. at Toronto. Have 4 first-class boars fit for service, 5 and 6 mos. old. Have 2 of the sows for sale that tried for 1st of the three pigs bred from one sow, and the 2nd and 3rd prize sows under 6 mos. These winning sows are bred from Perfection, the unbeaten yearling. Have a few good sows bred for sale. Have 25 head of young pigs from 10 to 8 weeks. Am booking orders for March and April pigs.

T. A. COX, Brantford, Ont.

FREE FOR BOYS and GIRLS
 Fine German Silver Keyless Watch, guaranteed for 5 years, with Chain, or a "Snap-Shot" Camera with all attachments ready to take pictures, given free for selling for us 25 Magic Polishers at 10c. each—SELLS IN EVERY HOME. Send name and address, we'll forward goods without money. Canada Supply Co., Toronto.

Hold On
 to a good thing when you find it. The planter who once reads Gregory's Seed Book—who once plants Gregory's Seeds, will never begin a season's work without them.

Gregory's Seeds
 represent the highest development of scientific seed culture. Gregory's seed book contains the best of seed and flower facts. The book is free to all—the seeds cost no more than the ordinary kind. Send for book at once.

JAMES J. H. GREGORY & SON,
 Marblehead, Mass.

GREGORY'S SEED CATALOGUE FOR 1899

WANTED

A Competent Cattleman at the Ontario Agricultural College.

Apply to

WM. RENNIE
 Guelph, Ont.

BUY



THE BEST

For Dairy or Table Use

IT IS UNEQUALLED.

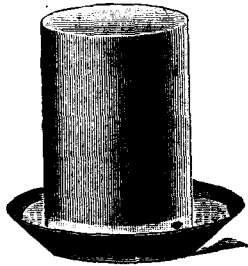
Salt on the Farm

for wire worm, joint worm, army worm and all insects that destroy crops. Salt is the best insecticide. It is also a fertilizer.

TRY IT.

R. & J. Ransford,
 CLINTON, ONT

higher standard based on individual merit would be introduced. Mr. Fuller in a very lucid manner explained many of the difficulties in the way of establishing such a Herd Book. Our best market is the United States, and in four or five years if we wished to export an animal, not only that animal, but all her ancestors, must be registered in A.J.C.C. before being admitted to the U.S. Another objection Mr. Fuller raised was the fact that cattle could not be imported from the Island in the name of the Canadian Jersey Herd Book and afterwards registered in A.J.C.C. Again, the cost of registration and maintaining the purity of a Canadian Herd Book would be increased owing to the compar-

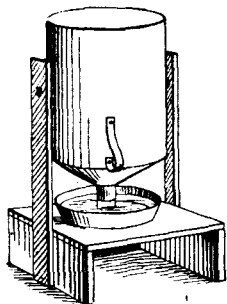


An Easily Constructed Water Fountain.

atively small number of cattle and the vast extent of territory covered. These and other objections raised by Mr. Fuller fully convinced every breeder present that it would be to our benefit to remain as we are. The following resolution was therefore passed by a unanimous vote:

"Resolved, that we do not entertain any idea of forming a Canadian Jersey Herd Book."

Mr. W. E. H. Massey was in sympathy with much that Mr. Fleming said, especially in regard to the raising of the standard. He therefore moved that the managing committee take up the matter of forming a Record of



A Swinging Water Fountain.

Merit for Jersey Cattle in Canada and report at our next meeting. This was carried unanimously, the general feeling of the meeting being that *performance* at the pail and churn and *individuality* should count before pedigree, but that the latter should be recorded in the books of the A.J.C.C.

A hearty vote of thanks was tendered Mr. Fuller for his valuable address, and to the retiring president for the able manner in which he has presided over the meetings for the past two years.

Officers for 1899 are:
President, J. H. Smith, Highfield;

GIVEN AWAY! We ask not a cent of your money.

Simply send your name and address, and we mail you a shipment of the best wicks in the world, absolutely free of charge also our complete prize list of articles given for selling them. A few only are shown here. We have also Manicure Sets, Sterling Silver Jewellery, Pure Gold Rings, Chains and Bracelets, Fountain Pens, Tool Sets, Magic Lanterns, Motors, Musical Instruments, etc., etc. Cash Commission if Preferred. You sell the wicks, return our money, and we forward your prizes, all charges paid by us.

OURS IS THE PERFECT WICK Its light is like the incandescent, steady, clear, strong and steady. No more sputtering, clogging and bad odor. It makes reading and needlework a pleasure. All we need is to have it introduced, and we can well afford to make the most generous offers to get agents. Lose no time. Order at once. You run no risk. Unsold Wicks are returnable. When writing mention this paper and the prize you want.

The Whitelight Wick Co., Toronto

Free, with Chain and Charm, for selling 2 doz.

Detective Camera complete for selling 5 doz.

Free, with 500 Rounds of Ammunition, for Selling 2 1/2 Doz.

Free with battery for selling 5 doz.

Free, with 500 Rounds of Ammunition, for Selling 2 1/2 Doz.

Free, with 500 Rounds of Ammunition, for Selling 2 1/2 Doz.

Free, with 500 Rounds of Ammunition, for Selling 2 1/2 Doz.

Free, with 500 Rounds of Ammunition, for Selling 2 1/2 Doz.

With every watch we send a Written Guarantee to repair or replace. Good for one year.

Pearce's Poultry Supplies

Green Bone Meal; Guaranteed No. 1..... \$7 00
 " " " " No. 2..... 10 00

"THE BEST" INCUBATOR AND BROODER

Are not only the best in name, but are also the best in simplicity of running, the best in economy of fuel, the best for a large percentage in hatching, and also "The Best" are the cheapest, being placed so low in price that farmers, amateur poultry keepers, etc. can afford to purchase. "The Best" Incubators are made throughout with thoroughly kiln-dried white pine, and are well put together. It is not got up for show only; it is as well made on the inside as it is without, and is built to hatch.

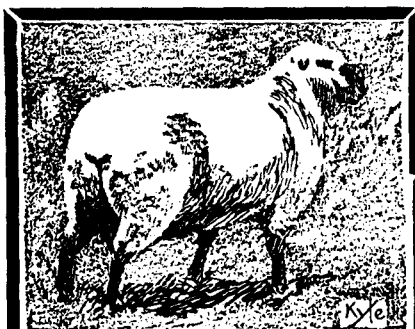
Incubators, 100 egg size, \$15.00; 200 egg size, \$21.00
 Brooders, 100 " 6.00; 200 " 8.00

Send for circular giving full particulars regarding application of heat, ventilation, moisture, nursery, etc.

Our 1899 Seed Catalogue now ready to mail. Address

JOHN S. PEARCE & CO., London, Ont.

Kindly mention this paper



Persian Sheep and Animal Wash

For the complete and effectual removal of all insects or vermin peculiar to sheep and cattle. Powerful, without being harsh; immediate in effect, without any irritating effects; it leaves the animal refreshed and in good spirits after use; does more than destroy the pests, it completely removes all traces of their attacks—healing sores or boils, curing open sores and leaving the skin whole and sound. Mr. G. A. Brodie, a prominent stock-raiser of Bethesda, Ont., used it with great success in castrating lambs, the wash healing the wounds rapidly and keeping the maggots away. He considers it the most effectual wash in the market, and heartily recommends it to farmers generally.

If your dealer hasn't it, write us for it, and tell us of anything special in the ailments of your flocks or herds and we'll advise you how best to use it.

The Pickhardt Renfrew Co.

(LIMITED)
STOUFFVILLE, ONT.



Trade Mark

BIG MONEY FOR AGENTS THE STAR RIVETER

For MENDING HARNESS, BELTING, etc. indispensable to Farmers, Liverymen and Threshermen. **STAR RIVETER** complete with 50 tubular rivets, \$1.00. Best selling article ever introduced. Agents write for special prices and territory.

N. E. PRIZE MAN'G CO., - TORONTO, ONT.

BRONZE TURKEYS

A choice lot of Mammoth Bronze Turkeys for sale—pure bred—heavy weight; for sale at reasonable prices. Satisfaction guaranteed.

ARTHUR FISHER,
"WILLOW BANK,"
CHATHAM, ONT.

FARMERS WANTED

To take orders in their section for the famous land renewer,

Alberts' Thomas-Phosphate Powder (Reg.)
Purity and analysis guaranteed. Correspond at once, as fall dressing of the land is important.

WALLACE & FRASER

Canada Life Building, - TORONTO

A FIRST-CLASS INCUBATOR

For Sale at a bargain. Capacity, 100 or 200 eggs as desired.

Apply to....
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Vice-President, Geo. Davies, Todmorden; Sec.-Treas., R. Reid, Berlin; Managing Com., Messrs. R. J. Fleming, W. E. H. Massey, D. O. Bull, E. Duncan, R. Willis.

Representatives on the Board of Directors of Toronto Fair: Messrs. D. Duncan and W. E. H. Massey.

London Fair Board: John O'Brien and J. H. Humpidge.

Ottawa: W. Conroy and W. C. Edwards, M.P.

Montreal Board: J. H. Fyfe and R. H. Pope.

The following were recommended as judges

Toronto Fair: J. E. Robbins, Greensburg, Ind., or Prof. Scoville, Lexington, Ky.

London Fair: R. McCulloch, Snelgrove, or R. Reid, Berlin.

Ottawa Fair: George Davies, Todmorden.

Montreal Fair: David Duncan, Don.

Other Fairs: B. H. Bull, Brampton; J. H. Smith, Highfield; Wm. Rolph, Markham; D. Duncan, Don; Geo. Davies, Todmorden; P. E. Freeman, Box Grove; E. B. Hinman, Grafton; D. O. Bull, Brampton; R. Reid, Berlin.

CANADIAN HORSE BREEDERS' ASSOCIATION.

PRELIMINARY ARRANGEMENTS FOR THE SPRING SHOW.

A meeting preliminary to the annual meeting of the Canadian Horse Breeders' Association, which will take place as usual some time in the second week of February, was held on Dec. 29th at the Albion Hotel, this city, to consider *mutatory arrangements* for the Horse Show of 1899. The Secretary, Mr. Henry Wade, in addressing the meeting, pointed out that the show has done much towards the improvement of the saddle and harness horses of the country, as well as the development and maintenance of the breeding interests. The Country and Hunt Club and the military are willing to co-operate again in conducting the show, and it will be necessary to arrange for a time of holding, which should be a week earlier than last year, or on April 26th, 27th, 28th and 29th. This would allow the owners of entire horses to get them on the road at the usual season, and he did not think the time would conflict with any other spring shows. Mr. Wade reported that the Provincial Government would make the usual grant, and that the Association had a fairly substantial balance in the bank, which would enable it to give a good list of premiums.

In the absence of the President, Mr. Robt. Davies, the chair was occupied by Principal Smith, of the Ontario Veterinary College. A letter was read by the Secretary from Mr. Wm. Hendrie, Jr., urging that some practical steps should be taken towards securing the inspection and regulation of stallions standing for service in the

A SLASH IN FURS

WE are determined to sell every FUR COAT in our immense stock between this date and the next four weeks. The stock is without doubt the largest in Canada, and this will be the grandest opportunity ever offered to **Farmers and Stockmen** for purchasing a first-class article at from 25 to 40 per cent. less than our regular prices. The prices given here are for **spot cash** and every line offered will be guaranteed.

HERE THEY ARE

LOT 1.—Walloby Fur Coats. These coats are a dark grey fur, 50 inches long, storm collars, quilted farmer satin lining, fur binding, with loops and barrel buttons, our regular price \$25.00. Selling now for **\$18**

LOT 2.—Matissina Buffalo Coat—long strong fur, made same style as above. An excellent coat for teaming and rough wear, will last a lifetime. Every farmer should have one. The regular price was \$35. We are selling them now at **\$25**

LOT 3.—The strongest coat ever made, Prairie Dog Fur, looks exactly like Coon, well made and lined, inside and outside pockets. We have only a few of these left and will sell at \$15. Don't think of buying a cloth coat when you can get one of these fur coats for \$15. You'll never regret it and we'll guarantee them.

LOT 4.—The finest assortment of Real Coon Skin Coats in Canada. They are all you can desire. Beautiful long hair, well made, nothing wanting, any size, 50 inches long. Regular \$50. Selling at..... **\$35**

Established 50 years.

DINEEN'S

140 YONGE STREET TORONTO

RAW FURS WANTED

WE are buying thousands of dollars' worth of Furs from farmers all over Canada. We want **THE BEST**, and will pay the highest prices. You can send us your raw furs per express at our expense; we will look them over and write you what we can give; if the prices do not suit we will send them back if you desire us to do so. Can anything be more fair? Let us hear from you at once.

Cummings & Sellers,

Manufacturing Furriers 244 Yonge Street, TORONTO, ONT.

\$1800. FOR FOUR TOMATOES

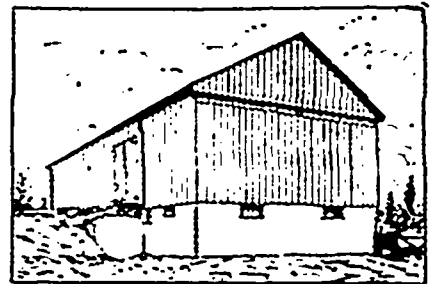
This is a wonderful Tomato, immense size, best quality and will astonish all who grow it. Fruit bright red, very solid, few seeds and free from rot. Fruits ripen from July 4 till frost. We paid \$300. for one weighing 3 lbs. 14 oz., and offer \$1800. Cash for fruit this year as follows: For one weighing 4 lbs. \$1000. 24 lbs. \$300. 3 lbs. \$250. 24 lbs. \$20. See what you can do. Instructions sent with seed.

\$300. FOR 6 NAMES!

Catalogue for 1899 is beautifully illustrated in color and full of new things. We have new Cabbage, Lettuce, Asparagus, Peppery, Parsley and Sweet Peas. Not one has been named yet we will pay \$50. Cash for a name for each. **Special Offer:** We will make one packet of 6 names also one packet each of the 6 names in one catalogue with instructions for \$200. If you send 50c to M. O. we will send you 50 Cabbages, 50 Peas for the 1899. **FAIRVIEW SEED FARM** Box 101 Rose Hill, N.Y.

Established 1841.

Thorold High in Quality Cement Low in Price 58 years in use



BARN OF GEN. ARFORD, TALBOTVILLE, ONT. Size of Basement Walls 34 x 68 x 9 feet Built with Thorold Cement.

Talbotville, Elgin Co., Dec. 22nd, 1897. During the past summer I have built a basement with your Thorold Cement under my barn 34 x 68 x 9 feet high from bottom of foundation; footing for foundations 19 in. thick; above the footing 12 in. thick. I used 6 parts of gravel to 1 of cement. I also built a cistern under the approach to the barn 8 x 18 x 7 feet high; wall around cistern 16 inches thick; arched over the top 10 inches thick.

I also put a floor into my cow stable, 22 x 57.4 inches thick, in which I used 27 barrels of Thorold Cement. I used six parts gravel to one of cement, except one inch on the surface, which was three parts gravel to one of cement. The floor is as hard as a stone. I consider both wall and floor better than I could have made of any other material, and much cheaper. Yours truly, GEN. ARFORD.

Our Thorold Cement is the best and cheapest for Silos, Barn Walls, Floors for horses and cattle, Pig Pens, Etc. Write us for free pamphlet.

Estate of Jno. Battle Thorold Ont. Mention FARMING.

A SMART PUBLICATION

that pleases its readers will please its advertisers. The Co-Operative Farmer has the name of being a successful paper that pleased its readers from the start. Fathered by the leading farmers' organization in New Brunswick, it was quickly adopted and endorsed by the other Farm, Dairy and Stock Associations of the Maritime Provinces, and is to-day the Home Farm Paper of Eastern Canada.

Free Sample Copy and advertising rates on application to

CO-OPERATIVE FARMER, Swoose, N.B.

country. In the discussion which followed, Mr. Wade referred to the fact that at a previous meeting resolutions had been adopted and committees appointed with a view to carrying out just the ideas contained in Mr. Hendrie's letter. This committee will likely report at the February meeting. In discussing the best means of furthering the welfare of the horse interests of the country, it was suggested that the Dominion Government should be urged to appoint a Royal Commission on horse breeding, and that a prize should be given annually for the ablest paper on the horse, its breeds and methods of development, both for home and foreign uses.

The following resolutions were adopted by the meeting:

"That the Farmers' Institutes throughout the country should discuss the matter of the breeding of high-class horses of all kinds, as they do such interests as cattle, sheep, swine, crops, cheese, etc."

"That the coming Horse Show be held as early in April as possible, to accommodate the breeders of horses throughout the country who last year found it impossible to exhibit owing to the Show being held so late. As a very large amount of the entrance fee and Government grant are obtained for and from the breeders, we feel it our duty to do all we can to further their interests."

A committee comprising Dr. Smith, and Messrs. Robt. Davies, H. N. Crossley, Wm. Hendrie, Jr., J. Macdonald, Henry Wade, and George Pepper, was appointed to meet the Country and Hunt Clubs and military authorities, and prepare a report on the proposed arrangements, for presentation to the forthcoming annual meeting of the Association.

Stock Notes

1899 TIPS.

That January is the best month in the year to breed for choice breeding stock and exhibit to a pigs.

That the green grass obtainable at the farrowing period in May thereby forces the youngsters ahead fully a month.

That in no case breed young sows to farrow before there is grass. Green grass is everything in the young sow's favor.

That but one litter should only be obtained from the young sow the first season, and it will be found the best economy to send the sow to market with her pigs.

That as good, robust and spirited pigs may be obtained from a skillfully nourished and well-developed young sow as from a sow twice as old.

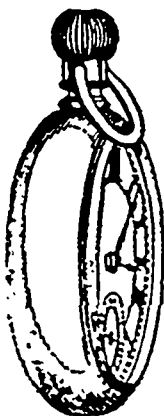
That a young sow made to farrow at twelve months should weigh four hundred pounds at parturition and is then as well developed in all of her vital parts as she ever will be.

That the universal impression that the old sow should be kept to the age of five years is a fallacy, and, that the litters from an old sow are so much superior to those from a skillfully nourished and well-developed young sow is another.

That two years is the limit of time which a sow should be kept. After that age she should be sent to the block and her place filled by a young one.

That one dollar invested in FARMING for its fifty-two issues during the year is about the best investment a swine-breeder can make in this year of grace, 1899. Don't depend upon your neighbor by borrowing his paper. Show you are successful by subscribing yourself.

FREE! For a Few Hours' Work.



We give these beautiful Premiums for selling our gold-topped, enamel-backed LEVER COLLAR BUTTONS at 10 cts each. NO MONEY REQUIRED, you run no risk. Write and we forward the buttons, postpaid, and our prize list which contains many articles besides those shown here, such as Magic Lanterns, Toolsets, Work Boxes, Manicure Sets, Motors, Printing Presses, Fountain Pens, Sterling Silver and Gold Jewellery, etc., etc. Sell the buttons, return our money, and we send you premiums promptly and FREE OF ALL CHARGES. Liberal commission if preferred. Our Boy's Watch is of American make, handsome, durable and reliable. Our Lady's Watch is a little gem, Swiss made, dainty and accurate. The Daisy Air Rifle and Baker's Skates With 5 Doz. speak for themselves. Our Cameras are of latest model, warranted for time or lightning exposures. In fact every article we offer is thoroughly reliable, as we find it to our greatest interest to handle only what we can guarantee. Unsold Buttons Returnable. Mention this paper when writing and the prize you want.



Free, with a handsome Chain and Charm, for selling 2 doz.

At Daisy Air Rifle with 500 rounds ammunition, or pair Baker's Best Hockey Skates with Screws free for selling 2 1/2 doz.

Lever Button Co.

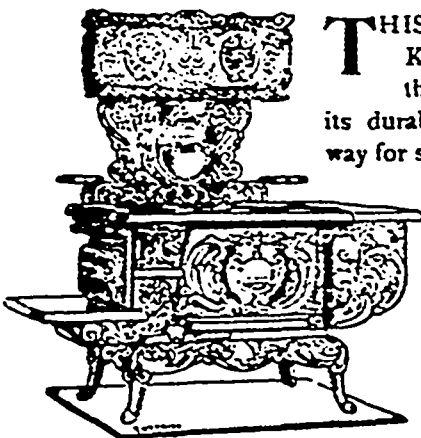
Free, with Guard - Chate-lane, for Selling 3 doz.

TORONTO ONT. With Battery complete for selling 5 doz.

With every Watch we send a WRITTEN GUARANTEE to Repair or Replace. Good for one year

Take This One

It Will Last a Lifetime



THIS is no idle saying of the Souvenir Kitchen Range. Hundreds of purchasers throughout the Dominion will tell you of its durability. It's not built for a year to give way for something else at the end of that time.

This is not the way the manufacturers of Souvenir do business. They build well with the idea that satisfaction and use can be gotten out of their stove. At the same time every worthy improvement and advance in the world of Stovedom is promptly engrafted into Souvenir. They are perfection in stoves. Sold everywhere.

- Ask the local agent in your locality for
- booklet telling specially of the aerated oven—
- an unrivalled and exclusive feature of Souvenir.

THE GURNEY-TILDEN CO., LIMITED HAMILTON, ONT.

AGENCIES—Toronto, Montreal, Winnipeg.

THE HOME MONEY MAKER

HOME WORK.



We want the services of a number of families to do knitting for us at home, whole or spare time. We furnish \$20 machine and supply the yarn free, and pay for the work as sent in.

Distance no hindrance. \$7 to \$10 per week made according to time devoted to the work. Write at once.

Name references.

CO-OPERATIVE KNITTING CO.
TORONTO, ONT.

CURES CATTLE

For cattle coughs, sore throat, sprains, sore or caked bag and a score of accidents that might befall the herd, Griffith's Menthol Liniment is the greatest of external applications—proved the success that is claimed for it a thousand times—good in an emergency—quick to cure.

"We have used Griffith's Menthol Liniment with great satisfaction and success on our ranches, and believe that for horses and cattle there is nothing to equal it." P. R. Ritchie & Co., ranchers, Vancouver, B.C.

GRIFFITH'S VETERINARY MENTHOL LINIMENT

Relieves the instant applied

At all Druggists—75 Cents

That the men who make a success of swine-breeding are invariably those who read the leading agricultural papers, including FARMING, and thus those whose advertisements are found in FARMING are the up-to-date fellows, who know where their dollars will go farthest.

That the up-to-date swine-breeder will not keep a brood sow on his place older than sixteen months. (That this will be branded as heretical by the average breeder. We are not after averages, however; neither are we treading the old beaten paths, nor sailing by old-time landmarks on the shore.) She shall farrow but one litter during her lifetime in this mundane sphere. Suckle them *ad infinitum*, and go to market with her family, which will be five months from her period of accouchment.

J. A. MACDONALD.

Hermanville Farm, P.E.I.

Mr. T. A. COX, of Brantford, Ont., writes: "I wish to congratulate FARMING on the last month's results of my advertising. I consider my ad every week is the right thing in advertising. It has brought me enquiries for stock every day, and sold ten head, and I expect to make quite a few sales yet. I have received quite a lot of enquiries from Manitoba, but there has not been sufficient time for the return of orders. More of the breeders should give the weekly ad a trial, and I am sure it would pay them. I have fifty head of choice Berkshires, as you will see by my ad in this week's issue, and a few choice-bred birds of the leading varieties of poultry for sale. They comprise fifteen varieties, as will be seen by my ad next week."

Mr. F. W. TAYLOR, of Wellman's Corners, Ont., writes: "My stock are looking well; am sending my milk to the creamery, and the milk tests 4.2, which is above the average. Three per cent. is the average of the whole factory." Mr. Taylor has 6 very choice Ayrshire bulls, sired by Douglas of Loudoun—1384—from deep-milking dams, which he offers for sale at reasonable prices.

In building poultry houses be sure and have the floor high enough to prevent damp, and drains outside to intercept surface water in wet weather. Ensure shelter from cold winds, but give plenty both of ventilation and light.

18 HERMANVILLE FARM 99

PIGS

Ready to wean.

1 Pig, \$10.00
2 Pigs, \$13.00
3 Pigs, \$25.00
Cross-breds
Half-price

Express prepaid to Montreal, or to any point in Maritime Provinces.

Tamworths Yorkshire Duroc-Jerseys Cross-breds

Every sow in the herd has either been a winner, produced a winner by a winner, or out of a winner. No other herd with such a record. Litters come in April, May and June. Orders now received. Address (P.O. on Farm), HERMANVILLE FARM, P.E.I., Can.

Berkshires



In my herd there is such blood as BARON LEE, DORSET CHIEFTAIN and WINDSOR SUPREME, and other noted strains. Choice stock for sale at reasonable prices. Write for particulars.

GEORGE N. HARRIS
LYNDEN, ONT.

NOVEMBER OFFERING

4 choice young Berkshire Boars about 8 months old.

10 Sows same age. Also fine lot of young pigs two months old ready to ship.

3 Extra good Southdown Ram Lambs and one pair of Aged Ewes to part with.



E. E. MARTIN,

Paris Station, G.T.R. Canning P.O., Ont.



as good as any if not the best of his kind on the continent of America to-day. Also "ROYAL DUCHESS," a first-prize sow at the Royal Show, Birmingham, England, in 1898, together with a choice lot of other sows, young boars fit for service, and pigs eight weeks old, single or in pairs not akin. Also choice young sows bred to "Look Me Over." We ship to order, prepay express charges, guarantee stock as described.

D. C. FLATT, Millgrove

Telephone and Post Office

A. ELLIOTT, Pond Mills, Ont.

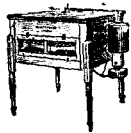
Emden Geese, Pekin Ducks, Bronze, White Holland and Narragansett Turkeys. Collie Dogs and Oxford Sheep. All of the best strains.

Thoroughbred Poultry For Sale

Trio Dark Brahma Fowls for \$4.50.
Trio Dark Brahma Chicks for \$5.50.
A few Dark Brahma Hens at \$1.50 each.
Two Partridge Cochins Cockerels at \$2 each.
One White Cochins Cockerel at \$2.50.

White and Barred Rocks and White Wyandotte Cockerels for breeding purposes cheap. All from prize-winning stock. Write

A. J. GEORGE,
Clarence St., - London, Ont.



FREIGHT PAID to any address. That's the way we send out our CYPHERS INCUBATOR.

It combines the good qualities of all machines and has the faults of none. Our Catalogue and Guide to Poultry Culture tells all about the laws of incubation, and how to raise, feed and market poultry—all about the money end of the business. Contains plans for construction and cost of modern poultry houses and many other things worth knowing. Sent for 10 cts. THE CYPHERS INCUBATOR CO. Box 69, Wayland, N. V.



Incubators and Brooders, Self-Regulating. Special low price for first in any locality. Agents wanted everywhere. Eggs for hatching, by the hundred cheap. B. P. Rocks a specialty. Catalogue free. Address Geo. S. Singer, Cardington, O.

J. BUCHANAN, Napier, Ont., Breeder reg. Aberdeen-Angus Cattle. Stock by Lord Forest for sale.

CHOICE AYRSHIRE BULLS

FROM IMPORTED STOCK.

We offer for sale Three (3) BULL CALVES from 9 to 13 months old, sire and dams imported; also 5 calves from 1 to 4 months, good in individuals and from the very best milking strains obtainable in Scotland.

W. W. BALLANTYNE.

(formerly Thos. Ballantyne & Son)
"Neidpath Stock Farm." Straif rd, Ont.
Farm adjoins city, main line G.T.R.

...FOR SALE...

8 SCOTCH SHORTHORN BULLS

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

COWS AND HEIFERS

DAVID MILNE, - - - Ethel, Ont.

FOR SALE

FIVE AYRSHIRE BULLS

Ranging from six months to two years. First-class animals, fit to head any herd.

Also, BIRDS

of thirty varieties of land and water fowl

WILLIAM STEWART & SON
Menie, - Ont.

C. M. SIMMONS, - IVAN, ONT

Breeder of Shorthorns and Berkshires.

Farm 7 miles from Ilderton Stn., G.T.R. Stock of all kinds for sale. Prices and quality sure to please.

Summer Hill Herd Of Yorkshire Hogs

Large Lengthy English Type

Among them being the undefeated prize-winning boar "LOOK ME OVER"—2602—acknowledged to be "ROYAL DUCHESS," a first-prize sow at the Royal Show, Birmingham, England, in 1898, together with a choice lot of other sows, young boars fit for service, and pigs eight weeks old, single or in pairs not akin. Also choice young sows bred to "Look Me Over." We ship to order, prepay express charges, guarantee stock as described.

D. C. FLATT, Millgrove

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The Ontario Agricultural Gazette

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

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

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

BENEFITS OF MEMBERSHIP.

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

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

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

The name and address of each member, and the stock he has for sale, are published once a month. Over 20,000 copies of this directory are mailed monthly. Copies are sent to each Agricultural College and each Experiment Station in Canada and the United States, also to prominent breeders and probable buyers resident in Canada, the United States and elsewhere.

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

The list of cattle, sheep, and swine for sale will be published in the third issue of each month. Members having stock for sale, in order that they may be included in the Gazette, are required to notify the undersigned by letter on or before the 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.

AN ABRIDGED REPORT OF AMERICAN EXPERIMENTS WHICH ARE OF VALUE TO CANADIAN FARMERS.

(Continued from last issue.)

SELECTION OF POTATOES FOR PLANTING.

The North Dakota Station reports on experiments during two seasons in the selection of potatoes for seed, making comparison of the growth from large and small tubers from the same vine. In 1894 the tubers were selected from hills of normal growth, which indicated that their origin was from a single seed piece and which showed considerable difference in growth, number, size and form of the potatoes. Small tubers were selected from those weighing between $1\frac{1}{4}$ and 2 oz., and large ones from those exceeding 6 oz. in weight. The specific gravity of the tubers was found to be essentially the same for large and small tubers from the same hill, but often very different in different hills. After the selected potatoes had been treated with corrosive sublimate for the prevention of scab, one piece, an ounce in weight, was taken from the bud end of each tuber. These pieces were planted in the spring of 1895 three feet apart each way and four inches deep, with the cut surface down, only one piece being planted in each hill. The average weight per hill from the small tubers when dug was 2.1467 lbs., and of that from the large tubers 1.92 lbs.

The preparation for the next year's crop was made as above, the only hills from which no seed was planted being those which had produced only large or only small tubers. The average yield per hill in 1896 was 26.54 oz. from those planted with pieces of small potatoes, and 25.45 oz. from those planted with pieces of large potatoes.

At the Wyoming station the yield

from small potatoes planted whole was greater than from cuttings made of large potatoes, but the percentage of marketable tubers was less from the whole seed. Potatoes planted eight inches apart in the rows gave the best results. Green manuring with peas resulted in an increase in yield of more than 38 per cent. During a cold, wet season it was found that seed treated for scab with corrosive sublimate produced a good stand, untreated seed planted with bone meal in the furrow produced a partial stand, while untreated seed without bone meal failed to grow.

The relative yield of potatoes grown from seed cut from the bud end, centre, and stem end of the potatoes at the New Jersey Station was conclusively in favor of the centre pieces. Three varieties of potatoes, the Early Rose, American Giant, and Rural No. 2 were tested.

LOSS BY EXPOSURE OF CORN FODDER.

That corn fodder left in the fields until required for feeding purposes loses much of its feeding value is well known to the careful agriculturist, but how much of its properties it loses is not often considered by a large number of farmers. Some light is thrown on this question by some analyses made at the Oklahoma Station of corn fodder taken from the inside and outside of the shocks which had stood in the open field all winter.

The results show a considerable reduction in the feeding value of the corn stover, equal, in the opinion of those who conducted the test, to fully one-fourth of its original worth, with a corresponding increase in the crude fibre, the least valuable point.

So long as corn fodder is left out in the fields, the only way to reduce this loss in feeding value is to place the sheaves in stacks with only the butts exposed, or else to keep them in long

narrow shocks, supported by a central pole on posts. The better way, however, is to build a silo and turn the corn into silage.

PLANTING AND CULTIVATION OF CORN.

A number of experiments in early and late planting of corn during periods of five, six and seven years at the Indiana Station indicated that the best results are to be obtained by planting between the 1st and 10th of May. The highest average for eleven years resulted from planting stalks fourteen inches apart in the row. It was noticed that, in dry years, the yield of stover increased with the thicker planting, while the yields of grain decreased, yet, on the whole, a greater total yield of corn and stover was obtained from the thicker planting.

Tests of cultivating drilled corn from one to four inches deep showed that the best average yield was obtained when the cultivation was two inches in depth.

THE SUGAR BEET.

Farmers' Bulletin 52 of the United States Department of Agriculture gives considerable information about the culture of sugar beets. The best soils are those having good drainage and good capillarity. Barnyard manure should be applied one or two seasons before the sugar beets are grown, as fresh applications reduce the sugar contained in the beets. Heavy, non-nitrogenous manures injure the quality of the beet, not so much by decreasing the sugar content as by increasing the percentage of non-sugars. The growing of sugar beets in rotation with other crops is recommended.

The author recommends late fall plowing at least 9 inches deep, and, on stiff soils, subsoiling to the depth of 6 or 7 inches more. Thorough surface cultivation should be given before planting, which should be done as early as possible, as the early-planted beets give a larger yield and a higher content of sugar than late-planted beets.

An estimate is made of the cost of growing beets on land worth \$75 per acre, with labor at \$1 per day, and the distance to the factory not more than three miles. This is given at \$59.50, and the return, with a yield of 15 tons of beets per acre, at \$4.50 per ton, is given at \$67.50.

The plants retained for seed should be smooth and regular in shape. They should weigh from 20 to 24 oz., and be selected from beets of the best quality. The leaves are to be removed

without injuring the neck, and the roots stored during the winter. In the spring the sugar content and the coefficient of purity of each root having a specific gravity above a certain point are determined, and the selected beets are then planted and a record kept of each beet. The seed produced is used solely for the production of the seed of commerce in the fourth or sixth year from the parent. Experiments indicate that home-grown seed is better than that imported from abroad.

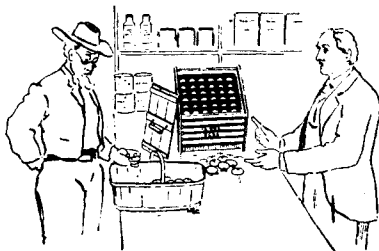
Publishers' Desk.

Raising Poultry for profit or pleasure requires the knowledge that comes from practical experience to be a success. Everyone can learn the fullest details about this interesting subject by sending fifteen cents to C. C. Shoemaker, Freeport, Ill., for his "Book on Poultry" and 1899 almanac, 160 pages, 100 illustrations, all about fowls, incubators, brooders, poultry houses, etc. The reliable, authoritative work of an expert that all should possess.

Comforts in Travelling.—If you are going to travel and desire to know how the latest improvements in passenger equipment may be made to contribute to your comfort on the journey, get a copy of the booklet recently issued by the C.P.R., entitled "Travelling Comfort." It is descriptive of the "tourist sleeper," the most recent outcome of this company's constant solicitude for its patrons' welfare. The booklet reflects credit upon its compiler, Mr. J. J. Brignall, one of the members of the company's advertising staff, who appears to possess the happy facility of giving the kind of information the traveller requires. We sometimes forget how much we owe to the C.P.R. for the improved conditions existing in the travelling comforts of to-day. Before the advent of the C.P.R. a journey of even moderate length was not looked upon with pleasure by the experienced traveller who could not afford the luxuries of a palace car. But comfortable cars, good beds, convenient and well-appointed toilet rooms, and last, but not least, a kitchen where the passenger may prepare his own meals if he desires, are some of the results of the care for the common, everyday traveller's well-being which the management of this company has shown from the start. The longest journey is robbed of all its discomfort by the introduction of such home-like conveniences which are available to all.

Meritorious Success.—When our representative called on Messrs. Tolton Bros., of Guelph, last Friday, he was pleased to see evidences of prosperity on every hand. The shops were working up to their full capacity and the products being shipped to all parts of the country in large consignments. On receiving our congratulations Mr. David Tolton said, "Our business this year has been far in advance of any previous year since we began the manufacture of agricultural implements. As an evidence of the root cutter being a favorite the output has been steadily increasing year by year, and this year has far surpassed all previous years' records. It is also very gratifying to us to know that the outlook for our harrow trade never was as good as it is now. This may be attributed entirely to the merits of the harrow, which is made of the very best material money can buy for the purpose, flexible in its principle and combining lightness, strength and durability; at the same time possessing the best pulverizing principle that can be contained in any one implement—that of flexibility." We are convinced that this description does not exaggerate the merits of the implement in the slightest degree, for we have never heard anything but approval of "Tolton's all steel flexible harrows" from those who have used them. As Mr. Tolton now has the personal supervision of the whole output of the shops customers may rely on getting an A1 article, and the motto of the firm, "Not how cheap but how good," will apply to every article shipped from the establishment.

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

MARKET REVIEW AND FORECAST.

Office of FARMING,

January 9, 1899.

The business of the new year has begun under very favorable circumstances and the general feeling is that good times have set in. The holiday trade has been exceptionally good. There is a great deal of Ontario and Manitoba grain yet to be harvested and when it begins to come to market the effect on the business of the country will be great.

Wheat.

The wheat situation continues to be one hard to estimate. At Chicago, during the week, there has been a kind of a battle royal between the "bulls" and the "bears," and prices have fluctuated according as one or the other gained the ascendancy. One important feature in the trade has been the large movement on export account. The exports of wheat and flour show large increases during the week, which would indicate that the foreign demand is a strong one. There have been large speculative purchases made of late, which is another indication that the situation is strong and that prices are not likely to go any lower than they are at present.

Liverpool futures were higher at the end of the week. The London cable to the *Trade Bulletin* of January 5th reads thus: "Since my last cable the market has partaken of a decidedly firmer tone with an advance of 6d. per quarter, and on the Baltic a more active business has occurred; floating cargoes are also higher, Manitoba hard participating." Prices at Montreal are nominal, but at Ontario points there has been some trading at 69½c. for No. 2, or 70c. f.o.b. for export. The offerings here have not been large, and quotations are 69 to 69½c. for red and white west and north; goose is quoted at 71c., and Manitoba No. 1 hard 79 to 81c., Toronto. On the local farmer's market red and white winter wheat brings about 72½c.; goose 72c., and spring 70 to 71c. per bushel.

Oats and Barley

The London oat market is easier and buyers show less disposition to operate. Receipts

have been more liberal at Montreal, and an easier feeling prevails with sale of car lots at 32½c. for No. 2. Oats here are steady at 28½c. for mixed and 29c. for white west. They fetch from 33½ to 35c. on the local market.

The Montreal barley market is quiet at 54 to 55c. for No. 1 malting. The market here is easier at 46 to 47c. west, 47 to 50c. per bushel are the prices on the local market.

Peas and Corn.

The London market for peas is firm, with a good demand at the decline. There is very little doing at Montreal, prices being too high in the west for export account. Peas are somewhat easier here at 65c. to 66c. west.

The price of corn is advancing in European markets, which will enhance values on this side. The Montreal market is firm, and car lots of No. 2 American are quoted at 45c. to 46c. on track. Old American is quoted here at 45½c. to 46c., and Canadian Yellow at 36c. west.

Bran and Shorts

The demand for Ontario bran at Montreal is fair and car lots are quoted at \$14 to \$14.25 and shorts at \$14.50 to \$15. The Toronto millers are selling bran at \$14 and shorts at \$15.

Clover and Timothy Seed.

The Montreal market is quiet. American timothy is quoted there at \$1.25 to \$1.50 and red clover at \$4.25 to \$5. Red clover is quoted here at \$3.50 to \$4; white clover, \$6 to \$9; alsike, \$4 to \$5, and timothy, \$1.25 to \$1.35 per bushel.

Eggs and Poultry

The London egg market is steady under a good consumptive demand. American buyers are operating largely at Ontario points, which is an indication that supplies are getting short in the United States. The duty on eggs is 5c. per dozen. New-laid eggs fetch from 25 to 28c. at Montreal. Eggs are in good demand here at 20 to 21c. for new-laid, 16 to 17c. for held fresh, and 15c. for limed. Prices on the local market range from 22 to 25c. per dozen.

Stocks of choice turkeys are light at Montreal, which bring from 9½ to 9½c. in cases; chickens, from 5 to 7c., geese, from 5½ to 6½c., and ducks, from 7 to 8½c. per lb. There is a lot of ordinary stuff on the market. Though receipts are not large here, the demand is not active and prices are steady at 7 to 9c. for turkeys, 5 to 6½c. for geese, 40 to 60c. for ducks, and 30 to 50c. per pair for chickens. Prices are a little higher on the local market.

Potatoes.

Stocks at Montreal are light, and potatoes in car lots are quoted at 53 to 55c. per bag. The market here is steady. Cars on track are quoted at 55 to 57c. Out of store they bring from 65 to 70c. On the local market they fetch from 55 to 65c. per bag.

Hay and Straw.

A lot of hay is now going forward to England, chiefly from the lower provinces. It costs from \$6.40 to \$7.40 per ton to ship hay to Liverpool, yet, as shippers are able to get it at a low figure, they are able to make a profit out of the business. The good quality of the hay this year will give it a good name in the British markets. At Montreal clover is quoted at \$3.50; at country points No. 1 clear timothy at \$6 to \$6.50; and No. 2 timothy and clover mixed at about \$4.25 to \$4.50 f.o.b. in the country. Baled hay is quoted there at \$7 to \$7.50 for No. 1; \$5 to \$5.50 for No. 2; and \$4.50 for clover. The demand here for baled hay is dull at \$7 to \$7.50 for cars on track, and baled straw \$4.50 to \$5. On the local market timothy is quoted at \$9 to \$10, and clover \$6 to \$7 per ton.

Fruit.

Since the holiday season trade in fruit has been somewhat duller. Apples at Montreal are quoted at \$2.50 to \$4.00 per barrel. On the local market here apples are quoted at \$1.50 to \$2.00 per barrel.

Cheese.

The market for cheese continues strong and values are steadily reaching a higher basis. There appears to be no movement to advance the market beyond legitimate values, and consequently the advance of ¼ to ½c. during the week is a normal one and likely to remain. The total shipments from Montreal since May 1st up to Dec. 30th, 1898, were 2,098,644 boxes as compared with 2,251,984 for the same time in 1897, showing a decrease of 153,340 boxes. The total shipments from New York for the same period were 321,062 boxes as compared with 604,851 boxes in 1897, showing a decrease of 283,789 boxes, making the total decrease 437,129 boxes. The estimate of stocks on hand January 1st, 1899, shows a decrease of 195,094, as compared with the estimate on January 1st, 1898, making the total shrinkage in the make of 1898 as compared with that of 1897, 632,223 boxes.

The London, Eng., market is steady and prices are firm. The Montreal market is quiet but firm, and sales indicate a steady advance. Sales of fine to finest Quebec cheese have been made at 10 to 10½c. and five to finest Western at 10½ to 10¾c.

Butter

The *Trade Bulletin's* London cable of Jan. 5th says: "Since my last cable there has been a decline of 3s. per cwt., but at the lower quotations a good demand has set, and the market has a healthier aspect. Australian cable advices regarding the severe drought have been confirmed by private advices, and this has induced a steadier feeling. Finest Canadian 98s. to 101s., good to fine 92s. to 95s." There is a good export enquiry at Montreal for late-made winter creamery, sales of which have been made at 20¼c. to 20½c. for the English market. Shippers claim that 20c. should be the outside price for export, but they do not seem to be able to get it at that figure. Secondary and medium grades are not wanted for export. They are quoted at 19 to 19½c. per lb. Western dairy is quoted at 15½c. for choice quality. The total shipments of butter from Montreal from May 1st to December 30th, 1898, were 321,310 packages, as compared with 241,728 packages for the same period of 1897, showing an increase of 79,582 packages. The shipments from New York for the same period were 68,029, as compared with 173,270 packages in 1897, a decrease of 105,241 packages, and showing a net decrease of 25,659 packages from this side.

Creamery is steady here at 20 to 21c for prints, and 19 to 20c. for tubs. There is a good demand for choice dairy butter at 13½ to 15c. for large rolls, and 11 to 12½c. for tubs. On the local market pound prints bring from 14 to 18c., and large rolls 13 to 14c.

Cattle.

The American cattle markets have not displayed any special activity during the week. At Buffalo prices have been steady, but supplies of beef cattle have been light. The Montreal market has shown a little improvement over a week ago. Really good beef cattle are wanted. The trade on this market was a little better all round, and the receipts much larger than a week ago.

Export Cattle.—Choice export cattle bring from \$4.40 to \$4.62½, and light ones \$4 to \$4.25. Heavy export bulls of choice quality bring from \$3.75 to \$4.12½ per cwt. The supply of really good stuff is not large.

Butchers' Cattle.—Choice picked lots are scarce, equal in quality to the best exporters weighing from 1,000 to 1,150 lbs. each, sell for from \$4 to \$4.25 per cwt.; loads of good butchers' cattle bring \$3.65 to \$3.80 per cwt.; medium, \$3.30 to \$3.45; common, \$3 to \$3.25; and inferior, \$2.35 to \$2.60 per cwt.

Milch Cows.—There are not many really good cows being offered. They are quoted at \$25 to \$40 each.

Calves.—Receipts have been fair at Buffalo, with a fair demand for good to choice lots. Prices continue the same here, at \$3 to \$6 each, with heavy veals of good quality going at \$5 per cwt.

Stockers and Feeders.—These continue to be active and firm in the western markets. The Buffalo market is fairly active and firm for good to choice grades. Not many stockers are being offered here. Prices range from \$3 to \$3.40 for inferior to good, with choice picked lots quoted at \$3.50. Few feeders are coming forward, and prices are unchanged at \$3.50 to \$3.75 per cwt.

Sheep and Lambs.

The Cincinnati market has ruled firm for sheep, but lambs are lower. At Buffalo light lambs are firm, but heavy ones are somewhat of a drag. The supply of sheep there has not been large, and consequently prices for these are also firm. The mildness of the weather in the middle of the week has lessened the demand for mutton somewhat. On this market ewes bring from \$3.25 to \$3.40, and bucks from \$2.50 to \$2.75 per cwt. Lambs are quoted at \$4 to \$4.25 per cwt.

Hogs.

The western markets, though some of them have declined 10c. or 15c. per cwt., show some advance over the holiday week. The Montreal market rules about the same at \$4.60 for selected hogs, \$4.25 for heavy fat, and \$4 for light fat. There has been a little advance in the price for choice bacon hogs here, and prices are firm at \$4.37½ to \$4.50. Light fat hogs bring about \$4 to \$4.12½, and thick fat ones \$3.75 per cwt.

Horses.

The East Buffalo horse market has been active of late and the prospects are that the coming season's trade will be the best for years. Quotations last week were as follows: Good to prime draft horses, \$95 to \$175; common to fair, \$60 to \$75; teams, \$180 to \$360 as to quality; fair to choice drivers, \$75 to \$125; extra actors and speedy ones, \$140 to \$210; coach horses, \$115 to \$175; fair to good farm chunks, \$60 to \$75; exporters' kind, \$70 to \$115; common and general purpose horses, \$20 to \$40 per head.

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(Coleman P. O.)

W. E. H. Massey, Proprietor

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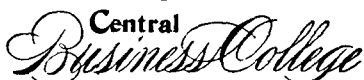
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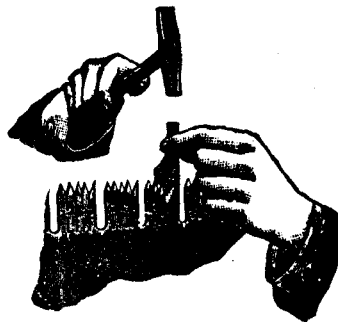
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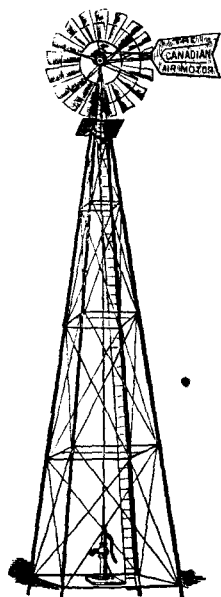


Maple Leaf Saw Set



Directions.—Place the Set on the point of tooth as shown in the above cut, and strike a very light blow with a tack hammer. If you require more set, file the tooth with more bevel. If you follow directions you cannot make a mistake. Be sure and not strike too hard a blow, and it will set the hardest saw.

Manufactured only by **SHURLY & DIETRICH, Galt, Ont.**



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Patchall

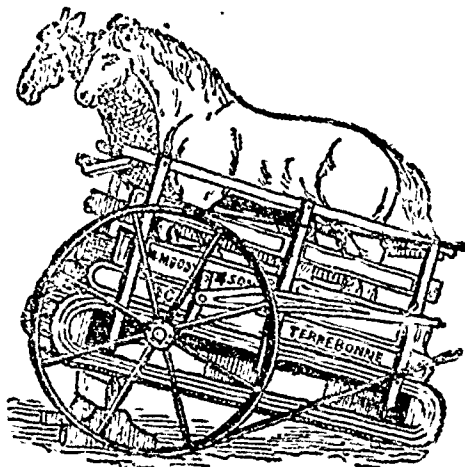
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SEND US 15c. and we will send you post paid the best **SKATE SHARPENER** ever invented. Can be carried in tin vest pocket—no need to it—a keen razor edge without removing skate from the feet. **Good Active Airs Wanted.** They are at right moments. Please to make a little pocket money quickly. **Express to Mr. Co., Toronto, Ont.**

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Get a long-lived machine when you buy and send for our catalogue.

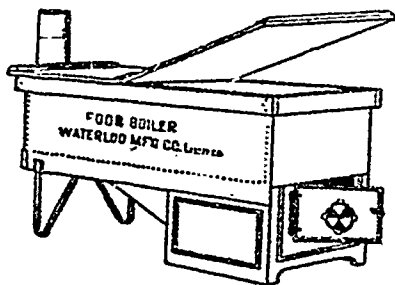
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Extract from Annual Report for 1897

of the Consulting Chemist of the **ROYAL AGRICULTURAL SOCIETY OF ENGLAND**, published in their Journal, 31st December, 1897, page 732:

"It has been necessary to call attention to the fact that under the name of 'slag,' and sometimes even under that of 'basic slag,' have been sold refuse materials of a very different character, and having little or no manurial value. These have not been the product of the now well known 'Basic' or THOMAS process of iron or steel-making, and have contained little or no phosphoric acid such as basic phosphate has. Several instances the purchasers believed that they were buying the true basic slag. It behoves one, therefore, to be careful to stipulate for THOMAS-PHOSPHATE, and to have a guarantee of phosphoric acid contained, and of fineness of division."

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Thomas-Phosphate Powder

sold in Canada; and to be sure of genuine material, see that the bags have our name and address.

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Masonic Block
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TORONTO

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The only way to prevent this trouble is to put a stop to it before it happens, or at least before it happens again.

The **SPRAMOTORS** are the result of the best efforts of the brainiest manufacturers alive.

The **SPRAMOTORS** embody more good features than all others combined, and that is the reason of the great demand. It is not only necessary to have one good feature, but one to be in the front rank must have all the good features.

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The **SPRAMOTOR** is made of brass, is the result of **THREE PATENTS** and others pending, is carefully made and less liable to need repairs.

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SPRAMOTORS are recognized as being the standard of the world, and they have proven it by **EVERY TEST** that a machine can be put to.

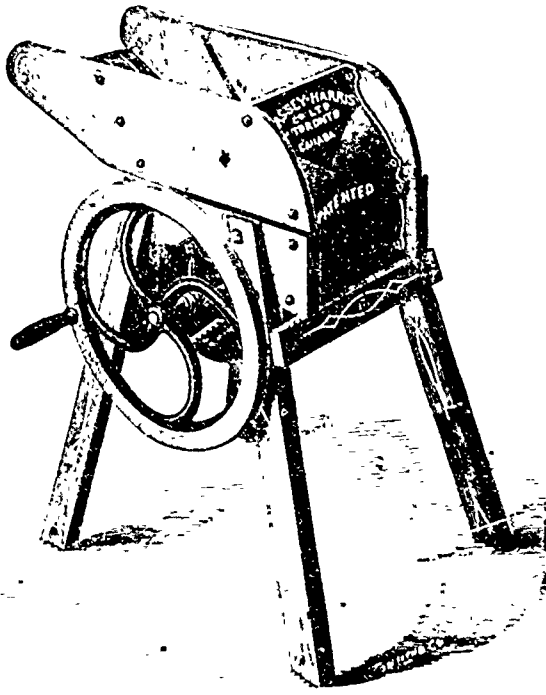
They cost from \$5.00 upward, and a catalogue will be mailed you on application.

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need careful attention in order to bring you good returns. The roots they eat should be well sliced and pulped. The



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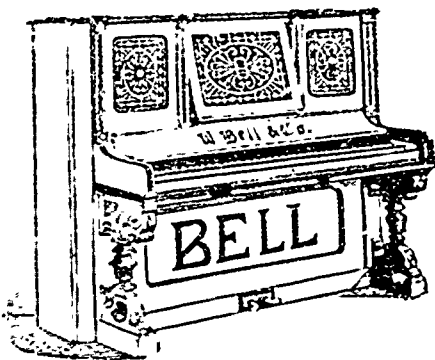
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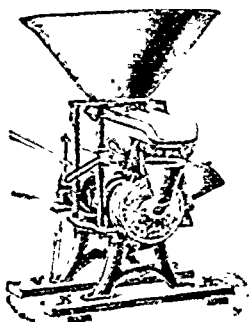
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