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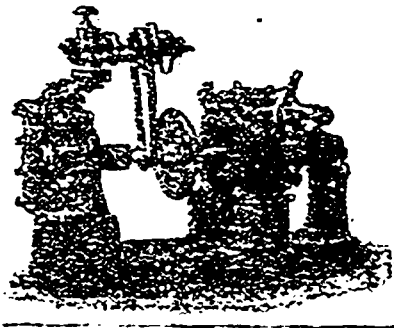
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FARMING

November 29th, 1898.

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CHAMPIONS FOR MILK and BUTTER

A number of desirable young bulls on hand from one to eight months old from our show herd and great "King stock. Also females of all ages

Write for just what you want.

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QUEEN DAKOL 2nd. Winner of Prince of Wales' prize, over heifers of a 1 br. d. in public test.

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A choice lot of birds, well barred, with nice yellow legs and beaks. Prices right.

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W. M. ARMSTRONG, Locust Hill, Ont., Breeder of Purebred and High-Grade Holsteins.

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M. & R. SHAW, Brantford, Ont., Breeders of A. Galloway Cattle. Choice young animals for sale.

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W. J. RUDD, Eden Mills, Ont., Breeder of Devon Cattle, Cotswold and Suffolk Sheep, Berkshire Pigs, Plymouth Rock Fowls. Young stock for sale.

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LAMBS—Canadian bred yearling and ram lambs. Yearling ewes and ewe lambs for sale, reasonable.

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Hermanville Tamworths Yorkshires

The Central Idea of the Hermanville Farm is to produce bacon pigs that will give to the swine- raiser the largest constant return at the lowest net cost. Young stock, rich in bacon inheritance, and capable of bringing up

your herd to a high standard, generally on hand for sale. Our TAMWORTHS are of the "Parkhill Mab" strain, and are absolutely the finest herd in this country. The merits of our YORKSHIRES and JERSEYS are well known. Orders now booked for spring pigs. Address (P.O. on the farm), Hermanville Farm, P.E.I., Can.

HICKORY HILL STOCK FARM



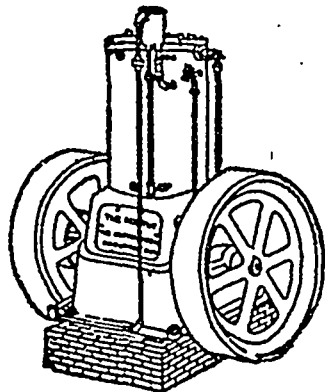
3 yearling Bull Calves from dams that have won milk tests.

Great Bargains if sold before winter sets in. Write or come and see.

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Full stock of A.J.C.C. cows, heifers, heifer calves and bulls. Ask for what you want. A number of young Berkshires.

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W. M. ROLPH, Glen Rouge Farm, Markham, Ont., Breeder of Jersey Cattle. Herd nearly all pure St. Lambert. Young stock always for sale.

W. M. WILLIS, Pine Ridge Farm, Newmarket, Ont., Breeder of St. Lambert Jersey Cattle, Cotswold Sheep.

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EAST TORONTO (Coleman P.O.)

W. E. H. MASSEY, Proprietor.

Dentonia Jersey Herd Winners of the Herd Prize at both the Toronto and London Fairs this fall, also some thirty other prizes. The herd comprises fourteen head of imported cattle, many of them winners of valuable prizes on the Island; also some thirty animals carefully selected from the best Canadian herds. Heifer and Bull Calves, also good Cows, always on sale.

Dentonia Poultry Yards S. C. Brown Leghorn and Light Brahma Cockerels for sale.

Dentonia Trout Ponds 100,000 healthy fry ready for delivery this fall. Prices reasonable. Trout Eggs in season. Market Trout supplied on short notice.

Henry Dudding

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Has always for inspection, and sale, the largest flock of pure Lincoln Longwool Sheep in the county, including many prize-winners, having taken prizes for many years at the Royal and other shows for both Rams and Ewes, including champion medals at both the Paris Exhibitions, Vienna, Amsterdam, Canada, Australia, New Zealand, and all the leading prizes at the Chicago Exposition, also the first for the best collection of Lincoln fleeces of wool at the Royal Windsor Show and the Lincolnshire Show, which proves the character of this flock. The sheep are famous for their great size and one hundred and twenty-five years' good breeding. At Lincoln Ram Sale, 1896, this flock's consignment not only made the highest individual average of any consignor, but also made an average price exceeding that made by any other breed in England, i.e., \$511 per head, the first six making an average of \$340. The sheep for sale this year are all sired by noted rams, and are fully equal to their predecessors in every way.

Rail Stations: Stallingborn, 3 miles distant, and Great Grimsby 7 miles.
Telegrams: "Dudding, Reelby, England."

Hursley Stock Farm.

A.J.C.C. JERSEYS

St. Lambert Blood.

Registered Stock, all ages, including some excellent choice Young Bulls ready for service. Also some choice Grade Milkers and Heifers, cheap.



Large Improved Yorkshires

Six Young Boars ready for Service cheap.

Some Choice Young Breeding Sows. Also Young Stock, at right prices.

SILLS SHAVRE & SON, Winchester Springs, Ont.

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Tamworth Boars, Dorset Rams, Shetland Ponies, Light Brahmas, Houdans, Cornish, Indian Games, Black Langshans, White Langshans, White Plymouth Rocks, Buff Plymouth Rocks, Barred Plymouth Rocks. Prices Right.

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On the C.P.R. and G.T.R. Railways. Special bargains on young bulls of superior merit and select Scotch breeding. Also thick young heifers at the right prices.

Ayrshires, Jerseys, Shropshire Sheep, and Clydesdale Horses.

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LAURENTIAN STOCK and DAIRY FARM.

North Nation Mills, Que.

Ayrshires, imported and homebred herd headed by imported Tam Glen Red, No. 1310 D. A. H. B. Jerseys all of the celebrated St. Lambert family; herd headed by Major Pegg of St. Anne's 18704 A.J.C.C. Berkshire Pigs. Young stock of all the above breeds for sale.

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A. E. SOHETK, Manager.



FARMING

VOL. XVI.

NOVEMBER 29th, 1898.

No. 13

Agricultural News and Comments

The following three questions should be asked by every farmer before deciding to buy anything: Do I need this? Am I getting it as cheaply as anybody can? Shall I get my money back in any way?

A home dairy department has been organized in connection with the Western Dairy School, Strathroy, Ont. Miss Shuttleworth, a graduate of the Provincial Dairy School, Guelph, has been appointed to take charge of this branch.

The National Creamery Buttermakers' Association will hold its seventh annual convention at Sioux Falls, South Dakota, from January 23rd to January 29th next. Arrangements are being made for the greatest convention in its history.

Russia, as well as Denmark, buys largely of the English swine-breeders to cross with the native pigs. In the Russian hog there is much blood of the Berkshire strain, and a number of large white Yorkshires have recently been sent there for breeding purposes.

There are in operation in the colony of Victoria, Australia, 325 creameries and 195 butter factories, making a total of 520, and the export to Great Britain for 1897 was 8,454 tons. The Australian colonies total 13,544 tons, being 364 tons more than Canada and the United States.

Periodically the Australian farmer has to contend with hot winds, the lack of rain, and the utter destruction of animal and vegetable life over large areas. In this way he is seriously handicapped. He may have several good years and then may come a bad one that will destroy nearly all his past efforts.

The best medicine that can be given swine in cholera or other times is something to keep them well and in good appetite. It is hard to doctor a sick hog. A half pail of skim-milk, in which are stirred a half dozen raw eggs, is a good and grateful dose, and will soothe and heal the inflamed stomach and bowel linings.

A live stock exchange says: "Dehorned cattle sell better than horned cattle for all purposes. They are preferred by shippers, slaughterers or exporters. They look better, feed better, sell better and kill better. The man that feeds horned cattle is handicapped from ten to twenty five cents per hundredweight in most cases."

Dr. Bailey summarizes the effects of tillage thus: It sets plant food free, promotes nitrification, supplies air to the soil and roots, makes all soil available by finding it, breaks up the hard pan, makes a reservoir for water, warms and dries the soil, saves moisture, sends the roots of trees downward, and makes the moisture and fertility of the soil available.

The Manitoba Dairy School re-opens on January 4th next under the direction of Dairy Superintendent Macdonald. The home dairy course begins on January 4th, and will continue for four weeks. There are two courses for factory cheese and butter-makers, beginning on February 1st and March 1st respectively, each one being a four weeks' course.

Professor Haecker says: "I take stock in the Babcock test, but not in the theory that you can take the Babcock test under your arm and go off, and by testing a cow's milk once determine her value. She must be tested several

times during her milking period. You must also know how much food she consumes to know whether or not she is a profitable cow."

Every farm should have a well-equipped work-shop where light repairs to farm machinery and implements can be made. It is not necessary for the farmer to be a regular mechanic to do work of this kind. With a small work-shop, fitted up with a good vice, work-bench, brace and bit, saw, hammer, nails, etc., a farmer could save money by keeping all the farm tools in order.

The annual competition in plowing sod by the first and second year students of the Ontario Agricultural College was completed on November 19th last. Forty students entered the competition, ten of whom were successful, and received the coveted badge, and six were highly recommended. Farm Superintendent Rennie states that the plowing this year was the best average they have ever had.

A new cattle dip has been discovered that promises to revolutionize the American cattle trade, more particularly the trade in Texas cattle. It consists of eighty-six pounds of sulphur dissolved by heat in 1,000 gallons of extra dynamo oil. This dip has been tried, and has proven effective in destroying ticks, and does not injure the cattle. The female tick is as large as a dime, and is the cause of the Texas fever.

An International Poultry Exhibition will take place at St. Petersburg, Russia, from the 13th to the 28th of May, 1899. Exhibitors will have free entry for their exhibits on condition that they be exported from Russia within two months after the close of the exhibition. Exhibits will consist of nine classes, and diplomas of honor, gold, silver and bronze medals and objects of artistic value will be awarded as prizes.

Gumming is caused by the action of a fungus upon the sap of the tree exposed by the boring of the grub. A watch should be kept for traces of borers, and where found destroy the insect by forcing a thin piece of wire into the hole, or by putting in some wadding dipped in bisulphide of carbon, and closing up the hole. All diseased bark should be cut away and the wound covered with paint, and then sprinkled with sand.

The Farmers' National Congress of the United States will hold its next annual gathering at Fort Worth, Texas, on December 6th to 14th, 1898. Ex-Gov. Hoard, of Wisconsin, is its president. On the programme, which has just been published, we find that Mr. C. C. James, Deputy-Minister of Agriculture, Toronto, is down for an address on "Agriculture in the Public Schools." The meeting will likely be a most profitable one.

Good horses have been getting scarce. They have been going to market at a rapid rate during the past three years. At Chicago alone during the past ten years 105,000 head were handled, and the year's business at other American points is the greatest on record. This year is the first of the revival of breeding, and it will be at least five years before the foals of this breeding will be ready for market. This means that for the next five years the present supply of horses will have to be depended upon.

A free rural mail delivery has been in operation in Green County, Ohio, for one month, and is giving perfect satisfaction to the people who live on the route. The route is twenty-two miles long, and six hours are required by the

carrier to make the trip. He makes up his deliveries from the post office boxes, and is ready to start by 9 a.m. Each farmer has a box for receiving his mail at the roadside, and the carrier does not have to leave his vehicle. In one day he delivered 178 papers. The service is nearly as convenient for forwarding mail as for securing it.

Some idea of the rise in the value of horses may be gauged by a report sent out from East Buffalo, which is to the effect that the light-legged kinds, 15 2 to 15 3 hands, 1,025 lbs. to 1,100 lbs., fairly good lookers and with some style and a good road gait, which now sell for around \$300 a pair, could have been bought three years ago for from \$100 to \$150 a pair. Indeed, the horses that could be bought in the dullest of the dull times for from \$100 to \$150 a pair were on the average slightly superior to those for which \$300 per pair is readily paid. And even of these the better trotting sorts supply is short.

An American farmer who feeds steers for market says. It is difficult to say how much it costs to make a pound of beef, but under favorable conditions I think a pound of beef and a pound of pork can be made for every 12lb. of sound corn fed to the animal. The grain alone represents two-thirds of the cost of the product, and to this must be added the pasturage in season, hay, and cost of sheds, barns, etc., with labor and interest on the investment. Those who desire to get rich feeding cattle must expect to creep along slowly. In the end, if they succeed, they are very apt to keep what they have acquired.

There is no permanent cure for heaves in horses. It can be lessened in extent by feeding nutritive material in small bulk, and more frequent rations. All coarse feed should be avoided such as timothy, millet, and clover hay. The best wild hay is preferable and it should be cut fine and given in small quantities mixed with mill feed or steamed food. Feed everything wet. Food and water should be consumed at least an hour before the animal is used for work. A horse with the heaves is only capable of doing light work and it is cruel to use him otherwise.

Farmers' telephones are coming into use in some parts of Ohio. The farmers in certain districts organize and run the telephone themselves. One of the strong organizations of this kind is the Geauga County Farmers' Telephone Company. This company is owned and operated entirely by farmers. It has already four hundred miles of wire in operation, reaches every town in the county, and goes to at least two hundred and fifty farm houses. The farmers and their hired men do all the work but wiring, which is done by experts. A telephone service of this kind would be of inestimable value in some of our thickly settled country districts.

Japan is receiving some attention just now as a market for butter. In 1897 the imports of butter into Japan amounted to 182,484 pounds, valued at \$37,500. Of this quantity the United States supplied 73,000 pounds; France, 32,000 pounds, and Austria, Denmark, Germany, Holland, Italy and Switzerland the rest. The bulk of that imported from the United States comes from California. The average price is 35 cents per pound in gold. A small quantity is imported from Canada, and Danish and Dutch brands are popular. There is no trouble in obtaining good butter from October to March or April, but during the rest of the year the butter obtained is more or less rancid.

The Export Egg and Poultry Trade

To our mind there is no branch of farming which affords greater room for development and progress than poultry keeping. Every farmer keeps hens; but how does he keep them? From the way many farmers look upon the poultry branch of their farming operations one would think they kept poultry as a kind of barnyard ornament. True, the farmyard would be a dull kind of place without the "crowing" of the rooster, the "quacking" of the duck and the "hissing" of the goose. But no kind of stock should

be kept on a farm as an ornament. The average farmer cannot afford to do this, and unless every horse, cow, sheep, pig or hen is returning a profit to its owner either in work or products he cannot make his business a success financially.

There is a growing demand in Great Britain for Canadian fresh eggs and for well-fed and well-dressed poultry, and the exports in these commodities from Canada will be larger than ever this season. In 1896 Canada sent to Great Britain 5,003,170 dozens of eggs, valued at \$870,798, and poultry and game to the value of \$30,504, and when the returns for 1898 are in a much larger volume of trade will be shown. What surprises us is that an export egg trade of this dimension could be worked up in Canada under existing conditions. The average farmer has no definite system of feeding his hens or gathering the product. The eggs too often are gathered when it is convenient to do so, and in the same way are taken to the village or town grocer, whence after a while they reach the shipper, and are forwarded in due time to the British market. True, there are notable exceptions, and the number of farmers who are giving special attention to the poultry branch of farming is every year growing larger, but still the bulk of them give it very little, if any, attention. If an export trade in eggs valued at a million dollars could be worked



Three Ayrshire cows, the property of J. McCormick & Sons, Rockton, Ont. The centre one is Sprightly 5th, 2587. The one to the left is Gem of Rockton 9241, sired by Jock Morton, and winner of third prize at Toronto. The one to the right is Teena of Rockton 3rd, 2955, sired by Jock Morton, also a prize-winner.

up under such unfavorable conditions what are the possibilities along this line if the hen on the farm is given special attention and the eggs are gathered in regularly and sent forward in a fresh condition under cold storage arrangements? There seems to be almost unlimited room for expansion if we can guarantee the British consumer strictly fresh eggs.

In addition to the export egg trade there is the dressed poultry branch of the business. There have never been as many orders received from England for dressed poultry in any one season as have been received this year, and this trade is bound to grow still more if we can send forward the right kind of product. Professor Robertson says that one defect in the management of the poultry business in Canada is that people do not properly fatten their poultry. There is then room for greatly extending this trade by properly fattening the poultry for export. Fattening takes from three to five weeks, and should be given special attention by every person who keeps fowls. It is possible to increase the weight of the average fowl sold on the markets in this country by from three to seven pounds each, and why should not the farmer get the benefit of this extra few pounds when he sells his birds? The poultry-fattening stations now being carried on by the Agricultural and Dairy Co. missioner will pay for themselves a hundred times over if they can induce and show the farmers of this country how to fatten their poultry for market.

The two following tables taken from a bulletin issued by

the Utah Experiment Station, part of which is published in the Agricultural and Dairy Commissioner's report for 1897, contain information of value to every poultry raiser. Four fowls were placed in each pen; half were given exercise, and half no exercise. The old hens were three to four years old; the early hatched pullets about seven months old, and the late hatched pullets about five and a half months old. The fowls were Rose-Comb Brown Leghorns. All pens were fed alike except in the matter of quantity. The food consisted of a mash composed of two parts bran and shorts and one part each of chopped corn and oats, which was fed in the morning; about 10 o'clock a little grain was fed; then grain again in the evening. The quantities and varieties of grain varied at different periods during the experiment, which was continued for a year. Cut bones and meat were fed three times a week. The green food was cabbage till 1st of march, after which cut lucerne leaves were fed dry. During the summer green grass was thrown into the pens. The grains fed were wheat, oats, corn, and barley. Corn was fed sparingly, and barley was discarded after a few weeks because the fowls did not relish it. No prepared poultry and egg foods were fed. The aim was to so feed as to induce the largest possible consumption of food of the right kind. The cost of the different foods were. Bran mash, 3/14 cent per lb.; wheat, 70 cents per bushel; bones, 3/4 cent per lb.; oats, 70 cents per cwt.; barley, 70 cents per cwt.; corn, 75 cents per cwt.; and cabbage, 1/2 cent per lb. The tables show that old hens are unprofitable, and that the early hatched pullets with exercise gave the largest per cent. of profit:

WEIGHTS OF FOOD PER FOWI IN POUNDS, AND COST OF SAME FOR THE YEAR.

Pen.		Mash.	Wheat.	Bones.	Corn.	Oats.	Barley.	Lucerne.	Cabbage.	Cost.
<i>No Exercise.</i>										
1	Old hens.....	10 22 1/2	10	6	11	1	5	13		53 1/4
2	Late hatched pullets.....	10 23	10 1/2	6	13	1 1/2	4 1/2	4		56 1/4
3	Early ".....	10 25	10 1/2	6	14	1	4 1/2	7		61 1/4
<i>Exercise.</i>										
4	Early hatched pullets.....	10 27	10 1/2	6 1/2	14	1	4 1/2	4		62
5	Old hens.....	10 27	10 1/2	6 1/2	14	1	4 1/2	4		62
6	Late hatched pullets.....	10 27	10 1/2	7	14 1/2	1	4 1/2	6		63

SUMMARY OF RESULTS.

The following table gives the yearly food cost per fowl, the number of eggs laid, the value of those eggs at market prices, the food cost per dozen of eggs, and the per cent. profit on food:

SUMMARY.

Pen.		Cost of Food.	Number of Eggs Laid.	Value.	Food Cost per Dozen.	Per Cent. Profit on Feed.
<i>No Exercise.</i>						
1	Old hens.....	53 1/4	64	0 56	9.9	5
2	Late hatched pullets,	56 1/4	137 1/2	1 32	4.9	135
3	Early ".....	61 1/4	157 1/4	1 68	4.6	174
<i>Exercise.</i>						
4	Early hatched pullets	62	181 1/4	1 88	4 1	203
5	Old hens.....	62	106 1/4	1 20	6.9	61
6	Late hatched pullets.	63	150 1/4	1 51	5.0	124

Mr. A. C. Hallman, the well-known breeder of Holstein cattle and Tamworth swine, New Dundee, Ont., writes under date of Oct. 31st last: "I notice a great improvement in FARMING of late. The articles are of a spicy, practical, and up-to-date character, and ought to be appreciated by every thoughtful reader."

A Valuable Suggestion for Farmers' Institutes

The South Bruce Farmers' Institute is offering five prizes of \$10, \$8, \$6, \$4 and \$2 each for the best essay on "The best method of cultivating and managing a 100-acre farm in all its branches with a view to profit." The essayists are also requested to make a few suggestions as to the better protection of sheep from dogs, etc. The contest is open only to farmers and farmers' sons in the South Riding of Bruce.

This is a scheme that should commend itself to every institute in the province. There is nothing more needful in Canadian agriculture to day than something that will bring the farmer out of his "shell." We have as intelligent a class of farmers in Ontario as is to be found anywhere, but the trouble is they are seemingly reluctant about putting what they know in print or making it public, and anything that will tend to draw out our young farmers especially will be a blessing to any agricultural community.

Too many institutes depend upon outside talent for the success of their meetings, though we are pleased to note a growing tendency towards utilizing more local talent. Outside talent should not be ignored altogether, but we believe there is room for greater development of the local talent in every institute and using it at the regular meetings. In fact, the regular work of the institute might, with advantage, be supplemented by a series of smaller meetings held in its district at which only local talent should be utilized. As many as twenty meetings of this character might be held every winter by each institute if the local talent were developed. It would not be necessary to make elaborate preparations for them. They could be held in some schoolhouse, or for that matter in some farmer's home, when some person in the locality or from some other part of the district might give a short address on some practical farm topic which might be discussed with profit by those present. A series of small meetings of this kind held throughout each institute district every winter would reach many farmers who never attend the regular meetings, and at the same time make it easier to get a crowd at the larger gatherings where outside talent could be heard. These small meetings might form the nucleus for a local farmers' club which could meet for mutual benefit every fortnight during the winter.

By adopting some plan of this kind there is room for very profitably extending the good work which our Farmers' Institutes are now doing. But it cannot be extended very well until there is enough local talent in the institute to take hold of the work. The plan which the South Bruce Institute has adopted will tend to bring local talent to the front. The farmer who can prepare an essay for a prize competition can prepare one to be read at a farmers' meeting. No institute could expend its surplus funds in a better way than in giving prizes for essays on farm topics, and therefore we would heartily commend this plan to every institute in the province.

Southdown Sheep

By John Jackson, Abingdon, Ont.

The Southdown breed of sheep is believed to be indigenous to the Downs of Sussex, and to have existed there for centuries, even before the conquest. It is without a doubt one of the purest and most unmixed breeds in Britain. Like most other breeds of live stock they have been greatly changed and improved during the past hundred years. A description of the breed by an English writer about a century ago was very different from a correct description of the up-to-date Southdown sheep of the present day. They were described there as being speckled-faced, long and thin in the neck, high on top of shoulders, slack in girth, high and narrow on the loin, low at the rump sharp on the back, flat-ribbed, narrow in the fore-quarters, and generally, though with little space between forelegs.

showing a good leg of mutton. As a rule they were looked upon as a plainly formed, if not an ugly, sheep, which furnished good and fine flavored flesh. They were very small indeed, as compared with the Southdowns of the present day.

The great change that has been made in the general make-up of the Southdowns during the last 100 years has been accomplished by a different process from the improvement made in most of the other breeds of sheep. They have never been crossed with any other breed, so that their almost perfect form has been brought about by a careful selection and by improved methods of feeding, thus maintaining their purity of breeding. This is why they are now so very valuable for crossing on common sheep to improve their mutton qualities. They readily adapt themselves to soil and climate, heavy or light, warm or cold. All the other Downs have been improved at some time in their history by a dash of Southdown blood.

The Southdown of to-day is generally conceded to be the "model sheep," and the breeders of all other Downs aim to breed as near to their type as it is possible to do. Some have made considerable progress in this direction in recent years, but they still have quite a journey before



Three noted Southdown sheep, the property of John Jackson & Sons, Abingdon, Ont. Each one was a first prize winner in his class this year at Toronto and London. The one to the right is Bronet, a three-shear that has never been beaten. The one on the left is Easton Beau, a shearling imported in 1893, and the one in the middle is a ram lamb, Babraham Beau, imported in 1898.

them. How different the description of a Southdown now from the one previously given! The color should be an even mouse color, neither too dark nor too light, without spots on the face or dark wool on the poll. The head should be well covered, ears rather small, but not thin, and should be covered with wool or hair; neck quite short and tapering, wide between the fore legs, big in the heart girth, well-sprung ribs, with a wide, level back and strong loin, broad behind and well let down in the twist. The legs should be quite short, with good strength of bone, woolled to the hock and knee, and the skin should be a bright pink color. They are a sheep that readily respond to good care and feeding, or they will endure hardship equal to any, will do well on even a bare pasture, and, owing to their thick, even coat of wool, will stand out in rain or snow without wetting the skin. By their early habits of having to travel long journeys in search of food on the rather bare hills in Sussex they developed a large amount of endurance, with a strong constitution and plenty of muscle. At the present day many of the best flocks in England are exposed the year round to all the inclemencies of the weather, winter and summer, without shade or shelter.

Southdowns are prolific breeders, mature earlier, perhaps, than any other sheep. They will make a pound of flesh with as little if not less food than any other, and more of it on the most valuable part of the carcass, and hence they command a higher price in every well-regulated market. The great question with the flock-master is, not how much can be realized from a single sheep, but how much is returned in cash for a given amount of food consumed.

The Cost of a Bushel of Wheat

An Indiana farmer writing to the *Ohio Farmer* gives the following cost of the production of a bushel of wheat on his farm for 1898:

"The wheat was sowed in standing corn with a five-hoed drill. The only preparation the ground received before sowing was to stir the soil with a garden cultivator having fourteen teeth. Like the drill it can be made wide or narrow to suit the width of the row by using a lever. The field contains twenty-four and a half acres. Most of the land is a heavy clay. It has several hundred rods of tile ditches and would be better for wheat if it had more.

"I will give the expense for the entire field as follows:

37 bushels seed at \$1	\$37 00
5 days' drilling at \$1.50.....	7 50
4 days' cultivating at \$1.50.....	6 00
Use of drill.....	2 00
Breaking stalks and corn stubs	1 50
Cutting at 60 cents per acre	14 70
Twine, 45 lbs. at 10 cents	4 50
Threshing at 10 cents per bushel	39 70
Hauling manure 4 days	10 00
Shocking, 2 hands 2 days	6 00
Interest on money invested in land at 5 per cent. per annum	50 00
Taxes.....	8 00
Hauling wheat to market 3½ miles.....	2 50

Total cost..... \$188 40

"From this amount there should be deducted \$10 for straw and \$5 for value of pasture of the wheat stubble. I would not sell the straw stack for twice the amount given here. On account of the carelessness or ignorance of some of the threshers some wheat was wasted and is in the straw stack. This will benefit the cattle this winter, but the greatest value of the straw is to use it for bedding for the stock to absorb the liquid manure.

"A neighbor's hogs destroyed some wheat for which he allowed me ten bushels of corn worth, at twenty five cents per bushel, \$2.50. This, together with the benefit to my own hogs of a few patches of down wheat the binder failed to save, I think worth the \$5 deducted for pasture. Subtracting this \$15 from the total cost of the wheat crop the remainder is \$173.40. Dividing this sum by 397, the number of bushels of wheat delivered at the granary, I find the wheat cost a fraction over 43¾c. per bushel. As the price when we threshed (August 2nd) was 58c. the profit above all expenses was about 14 cents per bushel.

"Of course where the ground was plowed for the wheat crop, and commercial fertilizer used, the cost per acre would be greater than my crop, but, with a yield two and a half times greater per acre, the cost per bushel would be much less. Some of the items in the cost account are correct to a cent. I hired the wheat cut, the owners of the binder furnishing the team and cutting the wheat for 60c. per acre. For this and the shocking and twine the cost is easily found. Some of the other items are estimates and may be too high or too low.

"The \$10 charged for hauling manure is a guess that is probably too high. I have a three-years' rotation. Breaking a clover sod for corn followed by a wheat crop seeded to clover, then one year in clover. I do not haul any manure for the wheat, but haul it on the clover sod that is to be ploughed for corn. By giving the poorest ground a good coat of stable manure that has none of its strength washed out by the rain, not only the corn but the wheat and clover crops following the corn are benefited, and to a less extent the second crop of each. I estimated that I hauled manure for twelve days for the corn that preceded this year's wheat crop. Allowing one-third of the expense of hauling for the three first crops and the fertility remaining in the ground to represent the value of the manure in the shed, I charged the wheat crop with four days' hauling at \$2.50 per day.

"The amount charged the wheat for threshing expenses is too large. I have been counting this expense at 10 cents per bushel for several years, from the fact that a machine was run for one season near here that furnished all men and teams and took the wheat from the field,

threshed it and stacked the straw for 10 cents per bushel. The owner of the machine had tents for the men to sleep in and hired a cook and furnished his own provisions and horse feed. All the farmers had to do was to haul the threshed wheat from the machine. This year the machine charged us 4 cents per bushel for wheat and $2\frac{1}{2}$ cents for oats. Our threshing club furnishes 22 hands and in settling with each other we allow 15 cents for each hundred bushels of wheat. If all the hands were paid in cash at this rate it would amount 3 to 3-10 cents per bushel. These two items taken from the threshing expenses would leave almost \$11 for board and horse feed. The hands were all with us for dinner and on account of a wet spell part of the machine hands were with us for a few other meals. I do not think this would amount to \$11 but will let it stand at that.

"The interest on the money invested in land will be considered too low by some. The writer pays 6 per cent. on his indebtedness. To have counted at 6 per cent. instead of 5 would have increased the cost of the wheat $2\frac{1}{2}$ cents per bushel. If instead of being in debt I had money to invest I would rather have real estate that would pay me 5 per cent. than to loan the money at 6. This on account of the tax being lower on the real estate and the greater safety of the investment. Especially in a case like this field where there are no buildings to be insured or kept in repair.

"The amount (\$7.50) allowed for hauling the wheat to market would not be sufficient after it was put in the granary. As the price used in figuring the profit was that paid at our nearest railroad station when we threshed, I have counted the expense to haul the wheat from the machine to market. Our threshing club furnishes three teams to haul the threshed grain. By hiring two teams for a half day all my crop would have been delivered at the railroad. As I did not haul any at that time the expense will be some larger. What I have sold up to this time was sold at 60 and 65 cents and at this date (Sept. 27th) I could sell the remainder for 62 cents. This increase in the price will more than balance the extra expense.

"Some might charge the crop for the fertilizer elements taken from the field. I do not think this is necessary. By a rotation of crops and saving and applying the manure the soil is gaining in fertility instead of becoming poorer. As I buy 8 or 10 tons of mill feed each year and do not sell any corn or hay I do not think the soil would ever become poorer even if I raised much larger crops of wheat and did not use commercial fertilizers.

"In the last five years only two of my wheat crops have paid a profit above all expenses. Who is to blame for this? If I had taken more time and put my ground in a better condition I think four out of the five crops would have paid a profit above all expenses. The other crop, on account of the unfavorable season, would have failed to meet all expenses, but the loss would have been small that year.

"The yield varied from 4 to $23\frac{1}{2}$ bushels per acre, the average for the five years being a little over $11\frac{1}{2}$ bushels per acre. As the expenses per acre were not so large as this year there has been a small profit in the five crops if all are taken together. And I think by better farming I can make money out of the wheat crops for the next five years if the price does not go lower than 40 cents per bushel.

"In conclusion I wish to say that if we will remember that nine of the thirteen items of expense I have given will be as large with a five-bushel crop per acre as for one of twenty-five I think we can all see that in many instances it will pay us to sow fewer acres and put more work on what we do sow. The other four items, that is the twine, shocking, threshing and hauling to market, are greater with a large crop, but the cost per bushel is much less with the large crop."

Though this estimate was upon conditions somewhat different from what we have in Canada, yet the above will be a pretty fair guide as to what the cost of producing a bushel of wheat really is. A good point made by the

writer is that the cost per acre for the bulk of the expenditures is the same whether the yield be twenty-five bushels or five bushels. This is something that every farmer should take into account. After the yield gets below a certain point profit ceases.

CORRESPONDENCE

The Business Science of Farming

To the Editor of FARMING:

I notice in your issue of November 8th Mr. Heggie's reply to my letter of 11th of October. For the facts therein stated in relation to his detailed cost of pig raising in British Columbia I desire to express my thanks and congratulations to Mr. Heggie. But there are several other allusions referring particularly to myself which call for a prompt reply. It has not been my purpose in the letters written on the subject of "Profitable Farming" in the past to indulge in any personal criticism unless first attacked and forced to do so by way of defence and explanation. Neither is it my intention to prolong this discussion on such motives. I do so for the main purpose of drawing out fair criticism, and, if possible, of enabling the readers of FARMING to discover valuable agricultural truths.

Mr. Heggie expresses his opinion to the effect that my ideas change greatly from time to time as to the number of pigs that can be kept on an acre of clover, and he hopes that an extreme of forty pigs will not be exceeded for the "clover's sake," as "the clover will then have a poor chance to grow." Adverse opinions and hopes entertained have very little weight with actual accomplished facts, when I state that sworn evidence can be produced that I fed and fattened sixty-five pigs this last summer on three-fourths of an acre of clover, and that the clover also grew and supplied green feed from May till the fall months.

The principles which determine maximum production per acre do not always apply to promote maximum profit. Location, situation, soil, climate and market as well as the skill of the operator are factors which largely predetermine results. Hence we find that in certain localities extensive farming pays better than intensive farming, and that in other sections intensive farming pays better than extensive farming. It remains with that branch of science which relates to profitable farming or the business science of agriculture which, when fully understood, fixes the amount of any one or more products produced per acre and determines the realization of the maximum cash and capital profits. When I state that sixty or more pigs can be fed and fattened on an acre of clover (supplemented with concentrated foods) I do not at the same time state that it gave the maximum net profit, but merely the maximum production in so far as my individual case is concerned.

It is not part of the principles of profitable farming to determine and decide that just so many pigs should be kept on all acres of clover, but to decide from correct data and all the factors coming into the environment as influences just how many pigs each individual acre of land under clover or any other green forage plant will maintain. For instance, different acres have different productive powers. Some soils will produce one, two, three, four or more tons of clover-hay, and such soils will support economically a number of pigs in proportion to its hay-growing capacity. While some acres may only support ten pigs other acres may and can support fifty and even more, and, therefore, when an agriculturist ventures the statement without reservation that all acres, whether good or bad, or without consideration of environment and supplemental feed, should have only fifteen pigs for pork production, it forces me to make the above remark.

Business science of farming, when well understood, should theoretically determine the exact number and kind of pigs which a stated acre of clover, under average conditions of climate and weather, that should be kept, fed and fattened thereon. It also enables the farmer to direct his

work so as to produce the maximum crop of clover, and thereby lay down a basis of operations which will predetermine the greatest possible clover growth per acre, and at the same time the greatest possible net profit. This is that true and very important branch of farm science which has almost entirely been neglected, not only by practical farmers universally, but also by the agricultural colleges, experimental farms, and professional teachers of agricultural topics. Agricultural truth is important to acquire, but if its financial value, either singly or in combination, cannot be demonstrated or imparted to those who make farming a profession, then it is quite clear to me, and I am forced to make the sweeping statement, that this most important accomplishment of the farmer's profession is either not understood, or is neglected and overlooked. Our country can boast of the most accomplished professors in teaching and imparting agricultural truth, and who can practically demonstrate maximum production. These two accomplishments are good in their place, but are of very little value to the possessor unless he has acquired the faculty of being able to make such knowledge of the highest practical value.

Business science of farming is the discovery and acquirement of all facts and data relating to profit and loss in all the departments of farm work, and of so arranging these in systematic order that this will enable the operator, under average conditions, to obtain most positive results, producing the greatest available profits present and future. My strong, everyday contention through the press, public and private, is that Canadian farmers are deficient in the understanding of the business phase of farming, and I regret to observe that the placing of this part of farm work as a distinct and separate branch of science—to be specially studied and practised to the fullest extent in everyday work—college and experimental farms, as well as farms in general—is almost entirely neglected.

D. M. MACPHERSON.

Lancaster, Nov. 15th, 1898.

The Bacon Hog Versus the Thick, Fat Hog

To the Editor of FARMING :

It is the general opinion that the short, thick, chunky hog will fatten much more easily than the long-bodied, narrow-backed bacon type. This is an erroneous opinion. All the careful experiments made at the different stations have never, so far, proved that the short, chunky hog will fatten more quickly and economically than his longer-bodied brother.

From this it will be seen that a good many people have been talking "through their hats," if the opinions as voiced on every side that such bacon types of hogs, as the Tamworth and such breeds and styles of pigs of the Tamworth build, are so much harder to fatten than the blocky Berkshire, Poland-China, and Duroc-Jersey. The experiment stations are occasionally doing some good work, and when they set about to correct and logically disprove obstinate and erroneous impressions, all fair-minded people will give them due credit. And is it not good that this particular stubborn impression does not, really, exist? It is only necessary, then, to diffuse the truth about the matter in the minds of swine-raisers.

The prevalent opinion in the minds of our swine-raisers, that the bacon type of hog is so much harder to raise, has greatly retarded the progress of the Canadian bacon industry. The farmers persist in raising only the thick, fat hog of the Poland-China and Berkshire classes, thinking that this class of hog was so much more cheaply raised. By so doing they were furnishing packers with the very pigs they did not want and greatly retarded the progress of the bacon trade. Whereas, if the Canadian swine raiser had at once, at the call of the packer, cast the blocky, thick, fat hog aside, and taken more kindly to the lengthy, deep sided hog of the bacon type, our Canadian bacon trade would be

in a much more advanced position. Now, however, that it has been shown conclusively that this blocky, thick, fat hog is *not* fattened much more cheaply and quickly than his long-bodied, deep-sided brother, we may hopefully look for a marked change in the quality and style of hog offered for sale. The Canadian farmer will now take more kindly to the hogs of the Tamworth type and the crosses of the long Yorkshire, and in thus choosing will console himself with the hard fact that in such a style of hog he has one that will grow and fatten as readily as the Poland-China, and one which will not only bring much more money but will greatly stimulate and improve the Canadian bacon trade.

J. A. MACDONALD.

Hermannville Farm, P.E.I., Nov. 16.

Mr. George Green

President Dominion Swine Breeders' Association

The annual meeting of the Dominion Swine Breeders' Association takes place at Brantford on Friday of this week, and a short sketch of its worthy president, Mr. George Green, of Fairview, Ont., will be quite apropos. Mr. Green is a thorough Canadian, and was born in the township of West Zorra, Oxford County, in 1850. Like the majority of our Canadian farmers he has followed agricultural pursuits all his life. His educational training, similar to that of nearly every farmer's boy of a generation or two ago, was acquired at the public school. Mr. Green's farm consists of 108 acres, and is located in the township of Downie, Perth County.

Mr. Green has been one of Canada's leading breeders of Berkshire swine and Cotswold sheep for fully twenty years, having begun his career as a breeder in 1878. Like everyone else starting in the business he selected these breeds because he had a fancy for them and believed that they were calculated to greatly improve the sheep and swine industries of this country. Mr. Green has made several importations of stock from the United States and Great Britain for the Fairview Herd and has a number of times purchased imported Berkshires from other importers. In this way he has maintained the standard of his herd at the highest point of excellence and made a name for himself as a breeder of pure-bred stock.

As a prize winner at the leading fairs, Mr. Green's record is a very enviable one indeed. Up to the present time he has won no less than 355 prizes, 15 diplomas and 7 medals. One of the most notable of his winnings was the Prince of Wales' prize of \$50 in 1888 for the best Berkshire boar and two sows of any age. Though a large share of his trade is done with the farmers of Ontario Mr. Green has made a number of notable sales of purebred stock to many of the leading breeders in the United States, Manitoba and the North-west Territories.

One might perhaps imagine that after so successful a career as a breeder Mr. Green might be inclined to rest on his oars a little. But this, evidently, is not his intention. He has in his herd at the present time the largest stock and the best individual Berkshires he has ever had, numbering about 70 in all, old and young. Among these, particular mention should be made of six fine stock boars imported and Canadian-bred that were prize winners at the leading exhibitions in the Dominion this fall.

Mr. Green has always evinced a live interest in everything pertaining to purebred stock, and has been an active worker in the Dominion Swine Breeders' Association for a number of years. He has been a member of the directorate for several years, and during the past year has occupied the responsible position of president, which office he has filled with credit to himself and to the association. We are sorry that we have not a good photograph of Mr. Green to present to our readers, but as we have been unable to get one in time for this issue we will have to reserve that pleasure for some future date.

FARMING is an excellent agricultural weekly—the only farm weekly of pretensions. We can heartily recommend it to our readers. The price is \$1.00 a year. Although we are opposed to clubbing, we will secure FARMING for any of our readers at a reduced price in combination with *The Journal*, St. Mary's, Ont.

BEYOND MEDICAL SKILL.

Master.—"Late again, Sandy! Can't you manage to get here in time?"

Sandy (with a doleful headshake)—"I canna sleep o' nights, sor, an' so I'm loath to get up in the mornin'."

Master.—"Eh, man, sleeplessness! Why don't you consult a doctor and get at the cause?"

Sandy.—"I get at the cause weel eneuch, but it'll no shut up. It's six weeks auld, an' an awfu' yellor."—*Glasgow Times*.

ONTARIO'S GREATEST POULTRY SHOW.

The joint poultry shows of the Poultry Association of Ontario and Toronto Poultry and Pigeon Association, to be held in the city of Toronto January 10 to 13th next, promises to be one of the most attractive exhibits ever given in Canada in the shape of fine fowls.

The American Poultry Association meets in the capital of the banner province of the Dominion at the same time, and as many members will bring a few birds with them, the cream of their flocks, a visitor to the pavilion in the Horticultural Gardens, where the show will be held, will be well repaid for the time spent in comparing the different exhibits, which will be the most valuable ever gathered together in Canada.

Pheasant-raising has within the past few years become a most pleasant pastime, and a very profitable one judging from the prices obtained for them, and who has more room for such than the farmer, for they need very little space and are easily reared, being extremely hardy? It is needless to say that pheasants will form a leading feature of this great show.

In view of the increased poultry trade between England and this country the display of dressed fowls in the way preferred for the British market will prove an interesting lesson. Already arrangements are being made with some of the leading exporters for a display in this line.

There are many farmers who have good stock, but are afraid of showing it for fear they would be beaten. To them we would say, make your entry and if at first you don't win a prize try again.

We feel that with the splendid system of instruction given by the Farmers' Institutes throughout the province the Provincial Government would feel that their money was better spent if more farmers were to exhibit at the winter shows, and demonstrate to the fanciers that as good stock can be raised on the farm as in their yards.

Thomas A. Brown, of London, Ont., is Secretary of the Show.

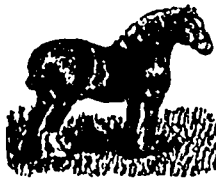
AGRICULTURAL EXPERIMENTAL UNION MEETING.

The annual meeting of the Ontario Agricultural Experimental Union will be held at the Agricultural College, Guelph, on December 7th, 8th and 9th next. There will be six sessions in all, and the convention will open by a public meeting in the Convocation Hall on the evening of December 7th.

Among the notable features of the programme will be addresses by Professor C. F. Curtiss, Director of the Agricultural Experimental Station of Iowa, and Mrs. S. T. Rorer, Principal of the Philadelphia Cooking School.

Thorncliffe Stock Farm.

I have on hand the best young Clydesdale Horses and Mares on this continent Bred from the well-known sires, Prince of Wales, Darnley, Macgregor, Energy, Lord Montrose, The Ruler, Carruchan Stamp, Knight Errant, and other celebrities.



599

SHROPSHIRE. Orders can now be booked for Shearling Rams, Ram Lambs and Ewes, sired by the celebrated prize-winning English Ram, Bar None. Also rams and ewes of this year's importation.

SHORTHORNS. Choice young Heifers and Bulls by the celebrated Cruickshank bulls, Northern Light and Vice-Consul.

My stock in the above lines were very successful at all the large shows last year. Call and examine stock before purchasing elsewhere. Terms reasonable.



ROBT. DAVIES, PROP. TORONTO, CANADA

The summary results of the field experiments conducted this year on over three thousand farms will be presented and discussed at the meeting. The Guelph Fat Stock and Poultry Show and the annual meeting of the Ontario Beekeepers' Association take place at Guelph during the same week. There will be reduced rates on all railways on the certificate plan. C. A. Zavitz, Agricultural College, Guelph, is Secretary of the Union.

FRUIT GROWERS' CONVENTION.

The annual Convention of the Ontario Fruit Growers' Association takes place at St. Catharines on Thursday and Friday of this week, when a number of important addresses will be given. Farmers and others interested in fruit culture should make it a point to attend this gathering.

A TWO WEEKS' FAIR AT OTTAWA FOR 1899.

At a meeting of the Directors of the Central Canada Exhibition Association, held a few days ago, it was unanimously decided to hold a two weeks' exhibition next year instead of a weekly one as heretofore. The 1899 exhibition will open on the first Monday after the close of the Toronto Fair, thus enabling it to open one week earlier in the season than last year. No Canadian exhibition has made greater progress during the past five years than the Central Canada Exhibition, and this extension of the time for holding the Fair is another indication of its progressive character.

BEEFING THE OLD COW

Professor Davenport, of Illinois, summarizes the points on the above subject as follows:

"(1) If a cow is naturally, or soon becomes, a non-breeder, it is generally for causes that contribute to her quality as a beef animal, and she is worth attention on the same basis as a steer, lessening the period of feeding and cheapening the feed with the increase of time during which she has exercised female faculties. (2) If she has been for many years a breeder it naturally and proportionately lessens her value as a feeder for beef and of her carcass when finished, and to an

CHEAP FARM FOR SALE

\$775 Lot No. 6 in 12 and S½ Lot 7 in 12th Con. of Brudenell, County of Renfrew, 214½ acres Good buildings. Three miles from Killaloe Station. Apply,

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SHOEMAKER'S POULTRY

BOOK on and ALMANAC for 1899, 190 pages, 100 illustrations of Poultry, Incubators, Brooders, Poultry Houses, etc. Tells how to raise chickens successfully, their care, diseases and remedies. Diagrams with full descriptions to build poultry houses. All about incubators, brooders and Poultry Fertility, with latest prices. Price only 15c. C. C. Shoemaker, Freeport, Ill., U. S. A.

extent too that will cut off all hope of profit; therefore in such cases she should go on the markets for what she will bring with whatever flesh she happened to carry when her true condition became known. The habit of a lifetime in the complete development and long exercise of the sexual functions is too strong to be set aside and yield profitably to the new business of beef making. (3) If known while yet in milk that it is to be her last lactation she will doubtless pay for some extra beef, but should go as soon as dry, or within thirty days afterward. (4) The practice of disposing of cows while young and able to "make" a good piece of beef is pernicious. If early beefing of the heifer be contemplated it should be done without breeding her at all, and if she be a successful breeder her value as such is too great to be sacrificed for the meagre return from a cheap piece of beef."

A poultry breeder says a bushel of corn will produce six pounds of pork worth 25 cents, while this bushel would keep a hen a year. She would lay at least twelve dozen eggs, which, averaging 10 cents a dozen, would equal \$1.20, and she would rear a brood of chickens worth twice as much more, making a total of nearly \$4. Experiment made at the Utah Agricultural Experiment Station seems to prove the correctness of the statement made above. Study the egg question.

Winter dairying has many advantages, as has often been noted in these columns. It furnishes profitable employment for the farmer and his men at a season of the year when, without it, the farm hands have to lay idle or work for low wages, and it furnishes a means of income that it is folly for the farmer to overlook.

SELECTING THE RAM.

Many sheep breeders will be selecting their rams now. It is important work and needs judgment. Much of the success of the future stock depends on the sire. He is only one, the ewes are many. Therefore, in buying do not begrudge a few dollars extra to get a superior animal. Such a sum would not go far in purchasing good ewes, but it will make a great difference in the quality of the ram that can be purchased, and it is through the superior quality of the ram that most farmers count to improve the quality of their flock. By getting really good rams it is astonishing how quickly the quality for a flock can be improved. We are not likely to see the high prices for wool that once prevailed; therefore the more need to give special attention to the mutton qualities of the sire. A heavy fleece is all right if it goes with the other.

Publishers' Desk.

Patch-All.—This is a great invention and will save the farmer and farmers' wives many a dollar in money and many a moment of time. Bags, binder canvas and all kinds of cloth may be repaired in a few seconds by the aid of this convenient mender. See the advertisement of the Domestic Specialty Co. in this number.

A Farmers' Co-operative Store.—The People's Wholesale Supply Co., of Toronto, deservedly stand high in the public favor. Their business is good and clean, their methods are of the same character, and town and country alike contribute to their success. They are amongst those who "wear well." The older the customer the higher is his opinion of the firm.

We All Want Furs.—In this country those whose business keeps them in the open air in winter find it is impossible to secure comfort without for wraps and clothing. If you have not got all of this class of goods you

LITTLE'S PATENT FLUID
NON-POISONOUS
SHEEP DIP AND CATTLE WASH

The Original Non-Poisonous Fluid Dip.

Still the Favorite Dip, as proved by the testimony of our Minister of Agriculture and other large Breeders.

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

CATTLE, HORSES, PIGS, Etc.
 Cleanses the skin from all insects, and makes the coat beautifully soft and glossy.
 Prevents the attack of Warble Fly.

Heals Saddle Galls, Sore Shoulders, Ulcers etc. Keeps Animals Free from Infection

No Danger, Safe, Cheap, and Effective.

BEWARE OF IMITATIONS.

Sold in large tins at 75 Cents. Sufficient in each to make from 25 to 40 gallons of wash, according to strength required. Special terms to Breeders, Ranchmen, and others requiring large quantities.
 Sold by all Druggists.
 Send for Pamphlet.

ROBERT WIENHART, Druggist, Owen Sound,
 Sole Agent for the Dominion.

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

FREE FOR BOYS and GIRLS
 The German Silver Keyless Watch, guaranteed for 2 years, with chain, or a "Snap-On" Camera with all attachments ready to take pictures, given free for selling for us 1000 copies at 10c each.
SELLS IN EVERY HOME. Send name and address, we'll forward goods without money. Canada Supply Co., Toronto.

FREE.



We give this fine watch, and also a chain and charm for selling two dozen LEVER COLLAR BUTTONS, at 10 cts. each. Send your address and we forward the buttons, postpaid, and our Premium List. No money required. Sell the buttons among your friends, return the money, and we send the watch, prepaid. A genuine American watch, guaranteed a good timepiece.
 Mention this paper when writing.

LEVER BUTTON CO.,
 20 Adelaide St. E. Toronto, Ont.

EXCELLENT FARM FOR SALE

THE splendid Dairy and Grain Farm, "Braceide," of 250 acres, near Mount Elgin, in the Township of Dereham, in the County of Oxford. Cheese factory and Creamery close by; convenient to good markets for all produce. Post Office, Churches, Store, Mill, Blacksmith shop and Telephone all convenient. This farm is in a high state of cultivation, well adapted for dairying or grain raising; well watered by creek and wells; Stone House and good Barns; Power Windmill; good fences; thirty-four acres of fall wheat in. For further particulars apply to owner.

LEWIS A. PRICE, Mount Elgin,
 Or to **M. WALSH, Barrister, Ingersoll.**

If desired, this farm can be sold in two parcels of 150 and 100 acres respectively. Easy terms for payment.

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.

OVER \$2,000.00 IN CASH PRIZES

WE have arranged to divide over \$2,000 in cash amongst all those securing new subscribers before 1st June, 1899. Any live man should easily be able to make from \$500 to \$700 during that time. Our plan is the most liberal ever published by a Canadian newspaper, and affords an opportunity to those having spare time to turn it to excellent account. Write at once for particulars. Delay means loss of time, and time means money.

Sample copies and outfit free to reliable and earnest workers. Subscribers and members of their families will have the preference in the allotment of territory

require get them now. You will want them soon enough and when the very severe weather sets in prices will be away up. Cummings & Sellers, 244 Yonge St., Toronto, are offering some splendid bargains in robes and coon coats. In another month you will regret it if you do not take advantage of the present offer. There is no risk in sending your orders to them. They are reliable and give you your money back if everything is not satisfactory.

Stock Notes.

MESSRS. H. CARGILL & SON, of Cargill, Ont., are offering a number of very high-class imported and home-bred Shorthorn stock for sale in this number of FARMING. The quality and breeding of the Cargill herd are of the very best type, and those desiring to obtain really first class stock should take advantage of this opportunity.

MR. W. D. FLATT, of Hamilton, Ont., reports that he has recently sold one bull to E. E. Riseley, of Bridgebury, Ont., one cow to J. C. Flatt, of Millgrove, Ont., and three cows, two heifers, and one young bull to John Ramsay, of Prudis, Alta. Mr. Flatt's advertisement in this issue will, doubtless, be of interest to stockmen and farmers generally, as he is offering some fine stock from his excellent herds of Shorthorn cattle and Yorkshire swine.

MR. JOHN CAMPBELL, of Fairview Farm, Woodville, Ont., writes on November 22nd: "I have to-day shipped six lots of choice Shropshires to one province and four states. Never in my experience has there been such a demand for high-class Shropshires by parties willing to pay good fair prices as during this month of November. I have some good ones still on hand."

MR. T. A. COX, of Brantford, reports his stock doing well. He intends to have some good Berkshires at the Provincial Fat Stock Show at Brantford as well as at Guelph and Woodstock. He has about forty head of very choice stock ready for shipping, and, as he says in his advertisement that express charges on all orders received before 1st January will be paid to any part of Ontario, no doubt he will dispose of the whole of them before Christmas.

THE CURE OF ASTHMA.

Liebig's Asthma Cure will cure Asthma, Hay Asthma or Hay Fever. Hundreds of people in four continents will say so. It is a first-class medicine, endorsed by medical men, and used by the best people in all parts of the civilized world.

A free trial bottle will be sent to any sufferer by mail prepaid. If you are afflicted, send your name and address to The Liebig Co., 179 King street west, Toronto, and say you saw this free offer in FARMING.

AS TO EPILEPSY AND FITS.

Liebig's Fit Cure for Epilepsy and kindred affections is the only successful remedy, and is now used by the best physicians and hospitals in Europe and America. It is confidently recommended to the afflicted. If you suffer from Epilepsy, fits, St. Vitus Dance, or have children or relatives that do so, or know a friend that is afflicted, then send for a free trial bottle and try it. It will be sent by mail prepaid. It has cured where everything else has failed.

When writing mention FARMING, and give full address to The Liebig Co., 179 King street west, Toronto.

A Calendar for '99, illustrated with pictures of typical

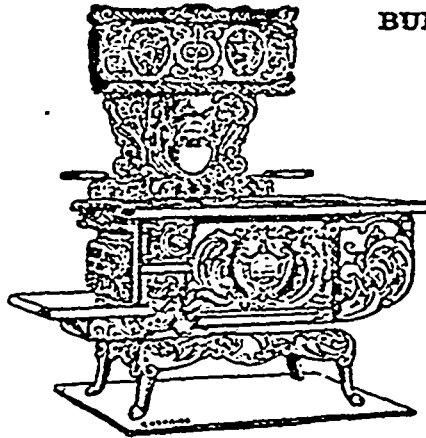
DOGS

of various breeds, will be issued by the middle of December. Send for one, enclosing

7 CENTS

in stamps, to Spratts Patent Limited, 239-245 East 56th Street, New York. San Francisco Branch, 1320 Valencia Street.

SOUVENIRS
Are Perfect Stoves



BUILT

Upon the Granite Rocks of . . .

EXPERIENCE.

For Fifty-five Years our stoves have been very largely used. Scarcely a hamlet in this broad Dominion but traffics in our wares. Unequalled experience, large facilities, and special opportunities make great results possible. We claim for

SOUVENIR RANGES

that they have reached perfection, that is, so far as perfection is known in the science and art of stove-building of to day. The AERATED OVEN is only one of their many special features.

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

AGENCIES—Toronto, Montreal, Winnipeg.

National Cream Separators

No. 1—350 lbs. \$75
No. 2—600 lbs. \$125

HAND OR POWER

East O. 9, Aug. 30, 1894

Creamery Supply Co., Guelph:—

DEAR SIR,—I am well pleased with the separator—very easy to run and a perfect skimmer—making 12 to 16 cows. The separator has increased the yield of butter 1 lb. per week per cow. We expect the separator to more than pay for itself in one year. Yours etc.

T. H. McMAHON.

DEAR SIR,—The separator is so easy to run we have to be careful not to use too much power. A child 10 or 12 years old is quite competent to run it for 10 or 12 cows.

MISSES A. & K. MACDONALD, Guelph.

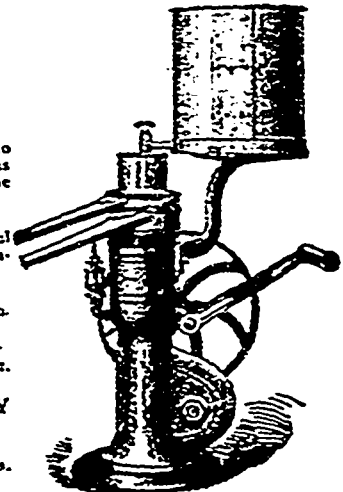
DEAR SIR,—My 8-year-old boy can run it from start to finish. The increased yield is about 1 lb. per week from each cow.

J. M. BARKER, Guelph.

Saves Labor—Makes Money. The best and cheapest in the market.

Sold by The CREAMERY SUPPLY COMPANY
Guelph, Ontario

N.B.—We furnish all kinds of Creamery and Dairy Supplies. Send for Catalogue.



ONTARIO VETERINARY COLLEGE, Limited
Temperance St. Toronto, Jan.

Associated with the University of Toronto.
Patrons: Governor-General of Canada and Lieutenant-Governor of Ontario. The most successful Veterinary Institution in America. Experienced Teachers. Classes begin on Wednesday, Oct. 13th, 1897. Fees, \$55 per session.
PRINCIPAL, PROF. SMITH, F.R.C.V.S., TORONTO, CANADA

HOW TO START
In the POULTRY BUSINESS and how to make it a complete success is the theme of our POULTRY GUIDE. Tells all about poultry houses, how to hatch, feed, etc., and how to breed, feed and market fowls. Treats also of the famous
CYPHERS INCUBATOR
which is delivered freight paid to every purchaser. This machine requires absolutely no artificial heat. Send 10 cents and get the book. Circular FREE!
THE CYPHERS INCUBATOR CO. Box 49 WAYLAND, N.Y.

The Unparalleled Reputation of

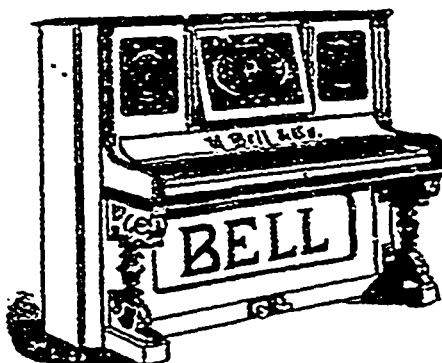
The BELL PIANOS and ORGANS . . .

Is accepted without dispute by all other makers . . .

ORGANS from \$40 upwards
PIANOS from \$250 upwards

Only the best materials used. All others are rejected. On Reasonable Terms from all Agents

Manufacturers: GUELPH, Ont.



THE BELL ORGAN & PIANO CO., LIMITED

MR. JAMES FORD, of Drumquin, Ont., claims the proud distinction of being owner of the heaviest two-year-old turkey in America. His gobbler, "Royal Tom," is no doubt a wonder, having taken first prize at the State Fair, Lexington, Ky., with a score of 95 points, and also at Paris and Covington, Ky., in the same year. Later he was awarded 1st and special prize for the best and heaviest turkey at the Provincial Poultry Show, Guelph, and at London, Ont. He is claimed to be the only turkey in Canada which has tipped the beam at over 40 lbs. as a year old, and the only one ever exhibited in Canada weighing over 46 pounds.

SILLS, SHAVEN & SON, of Winchester Springs, Ont., are among the latest advertisers of purebred stock in the columns of FARMING, and we have much pleasure in giving our readers a short account of their herd. Their registered Jerseys are well-selected from deep milking strains of St. Lambert blood, and are all characterized by very high butter fat tests. They are large in size, of strong constitution and breed, and selected with a view to the best dairy performances, and not altogether for show purposes. They have also a herd of grade Jerseys, consisting of fifteen head of as fine stock in their class as those of the pure-bred registered breeds. They are very high grades, excellent cows, and all under four years old. As their stock is large, Messrs. Sils, Shaver & Son desire to dispose of a portion of them at very reasonable prices. The Yorkshires comprising the stock of this firm are also very fine, and would hold its own in any company. It embraces perfectly the true lacon type, and the individuals of the herd are every one of them exceedingly thrifty and in good condition. The firm have shipped Yorkshires as far away as Kentucky. They will have sows farrowing in November, January, March and April. The stock is large, and those writing for what they want will be sure to receive satisfaction, as there are scores to choose from.

Who would ever dream that in this country of less than six million souls a Canadian newspaper could have a larger circulation than any of the big American weeklies with their seventy-two millions of people? Nevertheless it is a fact. THE FAMILY HERALD and WEEKLY STAR, of Montreal, is the paper that has the proud distinction, and has brought such credit upon Canada. This is *The Family Herald's* jubilee year and subscriptions are pouring in simply in thousands. *The Family Herald and Weekly Star* is being appreciated more than ever, and is the biggest value in the newspaper world to-day.

BUY

Coleman's Salt
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

BETTER THAN EVER

There is nothing like having the
Co-operation of the Farmer

The good BUTTER, EGGS and POULTRY which we get every day has over-run us with city trade. Our waggon have not been able to deliver all the orders through the city during the past week. And our country trade is away ahead of any previous year. We make prompt returns in either cash or goods. But send for as many goods as you can.

Co-operate with us and we will do you good

THE FARMERS' CO-OPERATIVE STORE THE PEOPLE'S WHOLESALE SUPPLY CO.

144-146 KING ST. EAST (Cor. Jarvis), TORONTO

R. Y. MANNING MANAGER

WE HAVE SOMETHING GOOD

for Dairymen in the line of a
Pumping Engine for boiler feed,
handling milk, etc.

No flimsy toy that will be
always out of order, but a strong,
efficient engine, convenient and
compact.

Lancaster Machine Works

Box 213

Lancaster, - Ontario.

Dr. Leavitt's DEHORNING CLIPPERS

Are the BEST in use.
More of them in use than all other
kinds combined.

For list, giving full particulars, address the owner of the Canadian Patent.

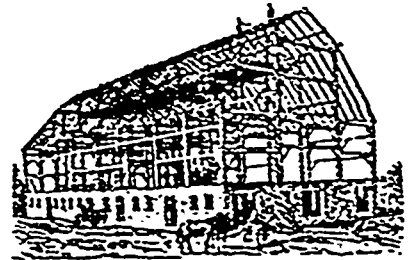
S. S. KIMBALL

577 Craig Street

MONTREAL, P.Q.



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



Floors for Horses and Cattle were put
in this barn with Battle's Thorold
Cement.

Hagersville, Ont., July 1st, 1897.

We used Thorold Cement in our Stable Floors, and we must say it has given us good satisfaction in every particular. Our floors are as hard as stone. We can truly say it is just perfection for stable floors.

BESWETHERICK BROS.

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

Estate of Jno. Battle Thorold
Ont.

A VERY DESIRABLE IMPROVED

FARM FOR SALE

BEING parts of Lots 125 and 126 South Talbot Road, Township of Bayham, County of Elgin. 155 acres—about 115 cleared and in a good state of cultivation. Good orchard and small fruits. Frame barn, 40x100. Good stabling and accommodation for cattle and horses, sheep and swine. A 150-ton silo. Vegetable and milk cellars. Outbuildings and fences in first-class condition. Good water, and all conditions requisite for success in farming or cattle raising. Price moderate and terms to suit.

E. A. GARNHAM,

STRAFFORDVILLE, ONT.

HELDERLEIGH FRUIT FARMS AND NURSERIES 400 ACRES

Situated at the base of the Mountain in a warm and sheltered valley where trees arrive at full maturity. Having over 125 acres planted in fruit, I have unusual facilities for knowing the value of the different varieties and establishing their purity. Everything is GUARANTEED TRUE TO NAME or purchase price refunded. I have for the fall of 1897, and the Spring of 1898, a complete line of Trees, Shrubs, Vines, etc., both fruit and ornamental. Write for a Catalogue which is furnished FREE, and which contains over ten pages of closely written matter about the various PESTS that trouble fruit growers and means of preventing their ravages.

Buy CANADIAN GROWN STOCK only, and thus escape the dreaded San José Scale so prevalent in the States. There is no more reliable, healthier, hardier, or more complete assortment than mine. Good reliable salesmen wanted in a number of fine townships, to start work at once. Complete outfit free.

Address E. D. Smith, WINGNA, Ont.



AYRSHIREN.

CHOICE AYRSHIRES AND POULTRY

FOR SALE.—A number of Choice Young Hulls, Sired by Jack Morton and from heavy milking dam; also a few Heifers. A large number of choice Barred Rocks and Black Spanish, and a few fine Toulouse Geese and Cayuga Ducks.

JAS. McCORMACK & SONS,
ROCKTON, ONTARIO

AYRSHIRES
... For Sale

The celebrated stock bull
"WHITE PRINCE"

A winner at the World's Fair, Chicago. Parties desiring a first-class stock bull cannot do better than secure this animal. Large White Yorkshire pigs of the bacon type for sale, also a standard bred mare in foal, sired by Red Chief. Colt sired by Elm City.

JOHN H. DOUGLAS,
WARKWORTH, ONTARIO

H. & J. McKEE, Krouside Farm, Norwich, Ont. Breeders Ayrshire Cattle Silver Grey Dorkings.

W. M. & J. C. SMITH, Fairfield Plains, Ont., Breeders World's Fair prize-winning Ayrshires, Merino Sheep, Poland-China Pigs, Poultry. Stock for sale.

J. YUILL & SONS, Meadowside Farm, Carleton Place, Ont., Breeders of Ayrshire Cattle, Shropshire Sheep, Berkshire Swine and Barred Plymouth Rocks.

- CHOICE AYRSHIRES -
FOR SALE

A number of choice Spring Calves sired by Douglas of London (1934), from deep milking dams.



Prices and terms reasonable. Write for particulars.
P. W. TAYLOR, Wellman's Corners, Ont. Hoard's Station, G.T.E.

GLENHURST HERD OF AYRSHIRES.

Noted prize-winners. Choice quality and heavy milking families. Extra fine young animals of both sexes for sale. Also Leicester Sheep and Berkshire Swine.



DAVID BENNING,
WILLIAMSTOWN, ONT.

...GOLDFINDER, Imp...

—HEADS OUR AYRSHIRE HERD—

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

R. NESS & SONS, Howick, Que.

MAPLE CLIFF STOCK AND DAIRY FARM

Ayrshire Cattle.
Berkshire and Tamworth Pigs.

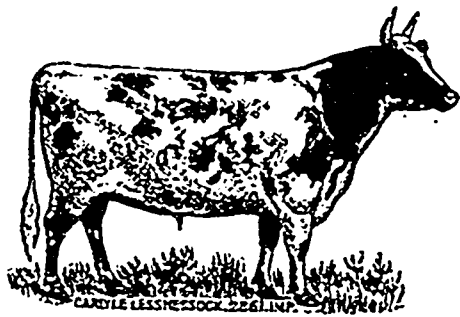
FOR SALE—Five bull calves from cow to eight months old. Could spare a few young heifers. Young pigs of full litters.

R. REID & CO.,
One mile from Ottawa.) Hintonburg, Ont.

TAMWORTH and CHESTER WHITE BOARS, fit for service; SOWS ready to breed, and a choice lot of FALL PIGS now ready to ship, at rock-bottom prices, from the sweepstake herd at Toronto, Montreal, London and Ottawa Exhibitions of 1897. We pay express charges to your station, and guarantee safe arrival on all stock shipped. Pairs furnished not akin.

Drop a card before buying elsewhere.
H. GEORGE & SONS,
CRAMPTON P.O., ONT.

VIRGINIA FARMS FOR SALE—Good land, good neighbors, schools and churches convenient. Mild, healthy climate, free from extremes of both heat and cold. Low prices and easy terms. Write for free catalogue. **R. B. CHAFFIN & CO.,** (Inc.) Richmond, Va.



Awarded four years in succession Herd Prize at Ottawa's Great Exhibition, and Special Gold Medal. At Montreal, Herd Prize and Mr. W. W. Ogilvie's Special \$100 Prize. Their individual Prize Records are of the same distinguished honors of the four years of their exhibition career.

Stock all Ages for Sale, and at prices in reach of all

Maple Grove Ayrshire Stock Farm
LYN, ONT.
Line—G.T.R.

PUREBRED AYRSHIRE
IMPORTED CATTLE

Largest and Most Expensive Importation in America

Bred for the Dairy, with Grand Constitution, and Champion Prize Records awarded them in Scotland and England

Sweepstake Herd—Montreal, Toronto, London and Ottawa in 1897

R. G. STEACY,
Importer and Breeder,
Box 720. BROCKVILLE, Ont.

SHEEP.

OXFORD DOWNS

For Sale

Good Shearling 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,
Harrison, Ont.



FAIRVIEW
SHROPSHIRE.

Imported and Canadian
RAMS and EWES

Choice lots to select from for breeding purposes, also first-class fitted sheep of both sexes for showing.

JOHN CAMPBELL,
WOODVILLE, Ont.

OXFORD DOWNS

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

SMITH EVANS,
Gourcock, Ont.
Breeder and Importer



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

Gotswolds Twenty good ram lambs, shearing and two-bearing, 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.

O. T. GARBUTT, Box 18, Claremont, Ont.

During **OCTOBER** and **NOVEMBER** we offer:

Shropshire ram lambs of No. 1 style and breeding weighing 100 lbs., at \$10.
Yorkshire and Berkshire boars, fit for service, at from \$12 to \$15.

W. R. BOWMAN, Mount Forest
JNO. A. MCGILLIVRAY, Q.C., Jerseyville Farm, Utzbridge, Ont., Breeder and Importer of Dorset Horned Sheep, Jersey Cattle, and Tamworth Pigs.

When replying to advertisements please mention **FARMING**

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.

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.

W. & H. JONES
Mt. Elgin, Ont

The Home of the Winners

I. O. FRASER & SON, Fellers, Ont., registered 1. Dorset Jersey swine, bred, and for sale.

R. H. Harding,
Breeders and Importers 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, should 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,
Burford, Ontario

JOS. CAIRNS, Camlachie, Ont.
IMPORTER AND BREEDER OF

Chester White Hogs

Stock on hand for sale at all times of all ages, and at right prices.

Golden Link Herd of Large English Berkshires

Six choice young boars for sale, fit for service, among them the boar that won 1st prize for best under 6 mos. at Toronto, 1895, and 1st at the Western; also 2nd prize boar under 6 mos. at Toronto; 12 first-class young sows from five to eight months old. Twenty-five head of pigs, 6 and 5 weeks old, sired by Perfection, a boar that has never been beaten.
Express charges will be prepaid to any part of Ontario on all orders received before January 1st.

T. A. COX, Brantford, Ont.

COLDSRING HERD TAMWORTHS.



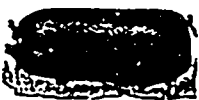
Two 1st of August boars, one a Brant; two sows, sisters of boars, as good as I ever owned. Young pigs out of Amber Rose, Trily and Minnie F. They go at rock bottom prices.
NORMAN M. BLAIN, Sr. GEORGE, Ont.

C. M. SIMMONS, - IVAN, ONT.

Breeder of Shorthorns and Berkshires. Farm 7 miles from Illerton Sta., G.T.R. Stock of all kinds for sale. Prices and quality sure to please.

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.

LARGE

ENGLISH BERKSHIRES

My herd won 306 prizes, 22 diplomas, and 5 medals since 1833. Choice stock of all ages for sale.
GEORGE GREEN, FAIRVIEW, ONT.
Stratford Station and Telegraph Office.



POLAND-CHINAS at Williscroft.

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.



493 **R. WILLIS, Jr. - Wrentham, 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 quality. Also S. L. Wyandotte, S. C. Dorking, P. Cochins, B. Minorca, S. Hamburg. Eggs in season, \$1 per setting.

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Seaside Farm, 2 miles from Bright Station, G.T.R.

Parkhill Berkshire Herd and Poultry Yards

Big reduction in prices for Pigs and Poultry this month in order to make room for the breeding stock.



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R. and W. P. Rocks, S. L. and W. Wyandotte, Black W. and H. Leghorns, R. Minorca at \$1 each. Pekin and Run Ducks, \$3.00 per pair. Toulouse Geese, \$4.50 per pair. W. R. Turkey, \$1 per pair. Young Tom, \$2.50 each. All are choice breeding stock.

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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:

JAMES H. SHAW, Simcoe, Ont.



Large English Berkshires.

Stock and show boars, 6 months and over. Sows in farrow. Young stock, 2 months up, good length. Write for prices. Mention FARMING.



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IMPROVED CHESTER AND TAMWORTH SWINE

Boars fit for service. Sows ready to breed, and Young Stock of both sexes for sale at reasonable prices.

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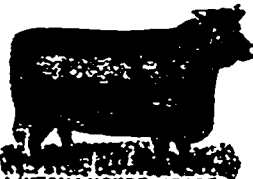
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Catalogues on application. Cargill Station and Post-Office on G.T.R. within one-half mile of barns.

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SIX BULLS FOR SALE, fit for service, at reasonable prices. Write for particulars.

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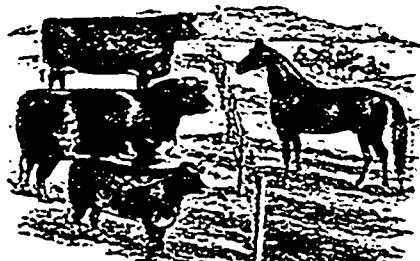
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.... OFFERS FOR SALE

TEN Choice Shorthorn Bulls, from six to twelve months; twenty five Cows and Heifers served by imported bull, Golden Fame #20056, also 1 large Yorkshire of choicest breeding and quality from imported and Canadian seed stock of True Bacon Type. Catalogue sent on application. Visitors met at G.T.R. or C.P.R. if notified.

NORTH BRUCE HERD 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.**

Summer Hill Herd

Improved Large White Yorkshire Hogs.



"LOOK ME OVER" 2602, 1st prize, Toronto, Belleville and other places, 1888, at head of herd. Royal Ducks 2nd, first prize, Royal Show, England, among breeding sows.

Young Stock for Sale. By notification, will meet train at Hamilton. Telephone, Millgrove, Ont.

D. C. FLATT, Millgrove P.O., Ont

LARGE ENGLISH BERKSHIRES

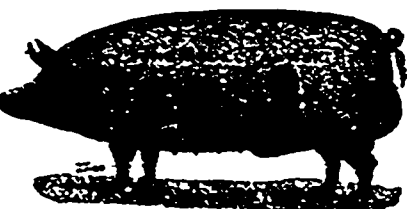
All bred from first-class show stock. Boars and sows 6 to 8 months old; also a choice lot of pigs 6 to 9 weeks old. Also a choice lot of B. P. Rock Cockerets. **Thos. Teasdale, Concord, Ont.**

Telegraph Office: Thornhill Station.

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.



TAMWORTH SWINE. For Sale

Boars fit for service. Sows in pig; also bred to order. Large quantity of young pigs. Address, **JOHN BELL, Clydesdale Farm, Amber P.O. Agincourt Station, G.T.R. and C.P.R.**

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.

PUREBRED STOCK FOR THE WEST.

On the 14th of November the officers of the Dominion Cattle, Sheep and Swine Breeders' Associations forwarded another car of purebred live stock from Ontario to the West. The car started from London on Monday evening, November 14th. At this point sixteen Leicester ram lambs were loaded for Mr. Alex. Smith, Maple Lodge, Ont., consigned to Wm. Brown, Dunmore Station, Alta.

The next point of loading was Guelph, where two yearling Galloway bulls were taken on for Lieut.-Col. D. McCrae, consigned to W. E. Cochrane, High River, Alta.

At Streetsville a Jersey cow and calf were taken on for Jno. Lundy, of Brampton, consigned to Andrew Mutter, Brandon, Manitoba, and at North Toronto the following stock was loaded: Three Shorthorn cows, two heifers and one bull, consigned by W. D. Flatt, of Hamilton, to Jno. Ramsey, of Calgary. Jno. Bell, Amber, one Tamworth boar, consigned to Alex. Polson, Stonewall, Manitoba. W. E. H. Massey, one Jersey cow, consigned to Andrew Mutter, Brandon, Manitoba.

At Carlton Junction a Jersey heifer, consigned to T. R. Robertson, was taken on for the Hon. Sydney Fisher, Ottawa.

ANOTHER CAR WILL GO FORWARD

as soon as enough animals are offered to complete the car load. Those wishing animals taken from Ontario to Manitoba are requested to correspond with F. W. Hodson, Parliament Buildings, Toronto. It is very desirable that a car be sent out each month, but this cannot be done unless enough animals are offered.

STUDY AGRICULTURE AT THE FIRE-SIDE AS WELL AS IN THE SCHOOLROOM.

If you have not read "Agriculture," by Mr C. C. James, M.A., you have missed a good thing. It is simple and easy to comprehend, yet the most readable and helpful book on agriculture that I have ever read. Prof. H. H. Dean says: "The way to judge a cheese is to eat a piece of it; if, after doing so, you want more, you may pronounce that cheese a good one." The stronger the desire for more the better the cheese. Judging Mr. James' book by a similar process, mentally, places it on a very high plane. It is divided into six divisions as follows:

- (1) The Plant.
- (2) The Soil.
- (3) The Crops of the Field.
- (4) The Garden and Orchard.
- (5) Live Stock and Dairying.
- (6) Bees, Brds, Forestry, Roads, The Rural Home.

Mr. Bernard McEvoy, in reviewing "Agriculture," wrote: "Mr. James wrote the best little text-book on the subject over which he ministrates that has yet been written. Some of the more intelligent among rural public school boards are now showing that they know enough to adopt it in their schools. I can quite believe the rumor that it is to be translated into Japanese—first, because the Japanese are a practical people; second, because Mr. James' book deals with basic principles, though it is simple enough for a ten year-old child. And the bent of the Japanese mind is philosophical enough to apprehend the advantage of this." A copy of this book should be in every country home in Canada; if it were, and were

carefully read and re read by old and young, it would prove a national blessing.

The book contains two hundred pages, it is well printed, freely illustrated and attractively bound. The publisher is Mr. George N. Morang, Toronto. Copies retail at 25 cents. Many of the institutes have accumulated surplus funds. While the carrying on of the work with an eye to the proper balancing of receipts and expenditures is much to be desired it is doubtful whether the accumulation of a surplus is a good thing for any institute. The money at the disposal of the officials should be made to do work for the members along the lines for which the institutes are organized, namely, the assisting of the members to do better work by giving instruction through addresses, and reading. Some institutes may desire to form small rural libraries, others may prefer to place some good instructive books in the hands of their members. If any institute were to place a copy of this book on agriculture as a premium in the hands of every member it would be doing commendable work.

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

ROPY MILK.

Bulletin No. 3 of the Southern California Station gives the results of investigation in a bad case of ropy or stringy milk. It was a case of dirty stables, dirty clothing of those who milked and insufficiently cleaned dairy utensils.

The test showed that, while milk drawn in the ordinary way into unsterilized vessels invariably became ropy, in not one instance did any ropiness ensue when the milk was drawn from these same cows with precautions that prevented the entrance of many living bacteria. Even the precaution of cleaning the teats and udder with ordinary water and the milking into a sterilized pail covered with cloth to exclude the dust prevented ropiness.

During the investigation it was found that the ropiness could be communicated to other milk by adding a little of the infected milk. The milk from some of the cows had a greater tendency to become ropy than that from others and it seemed that the exterior of some of the cows was more infected with the troublesome bacteria than that of the others. Even the canals of the teats of one cow were infected,

as was shown by the fact that her milk became ropy even though her udder and teats had been carefully cleansed outside. It is a sad commentary on the shortsightedness of some farmers that the owner of these cows, although the nature of the trouble and its cure were pointed out to him, refused to take the necessary steps to correct the evil.

CARE OF DAIRY UTENSILS.

In the year book of the United States Department of Agriculture for 1896 is a thoughtful article by R. A. Pearson on the selection of dairy utensils, on methods and appliances for cleaning and sterilizing dairy utensils, on the care and cleaning of dairy rooms or buildings, clothing of operators, and the thousand-and-one things to be considered in successful dairy work.

A great point made by the author is the importance of selecting only such dairy utensils as can be easily cleaned. He says, "other things being equal, the more accessible the inside surface of an article for dairy use the more valuable it is. Any utensil having corners or parts which cannot be reached with water and a brush or cloth should be avoided. A vessel should be discarded if it has sharp, angular corners, unless they are absolutely necessary, for they require too much attention. All dairy utensils should be of hard material, and have smooth surfaces. Wooden pails should never be used for holding milk, as in

CLUBBING LIST

SAVE MONEY by ordering your newspapers and reading matter through us. We can furnish almost any book, newspaper, or magazine in combination with subscriptions and save you money in every case. The following are some of the leading publications we offer with FARMING.

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Canadian Magazine.....	\$2 50	\$2 50
Toronto Weekly Globe.....	1 00	1 45
Toronto Weekly Mail and Empire.....	1 00	1 40
Toronto Morning World.....	3 00	3 00
Farm and Fireside.....	1 00	1 40
Montreal Daily Witness.....	3 00	3 00
Montreal Weekly Witness.....	1 00	1 50
Family Herald and Weekly Star— with great premium picture.....	1 00	1 75
London Daily News.....	1 50	2 00
London Weekly Free Press.....	1 00	1 75
London Weekly Advertiser.....	1 00	1 40
Ottawa Semi-weekly Free Press.....	1 00	1 60
Ottawa Semi-weekly Journal.....	1 00	1 55
Ottawa Semi-weekly Citizen.....	1 00	1 50
Ottawa Morning Citizen (daily).....	3 00	3 00
*Hamilton Semi-weekly Times.....	1 00	1 60
*Hamilton Semi-weekly Spectator.....	1 00	1 60
Brantford Weekly Expositor.....	1 00	1 75
The Semi-Weekly Sun (St. John, N.B.).....	0 75	1 50
The Welland Tribune.....	0 75	1 50
The Halifax Herald.....	3 00	3 00
*Citizen and Country.....	1 00	1 50
Hoard's Dairyman.....	1 00	1 75
The Breeder's Gazette.....	2 00	2 00
Rural New Yorker.....	1 00	1 85
The Guelph Herald.....	1 00	1 70
The Jersey Bulletin.....	1 50	2 00
The American Kitchen Magazine.....	1 00	1 75

Papers marked thus * will be sent until the end of 1899—other papers for the year only—but FARMING will be sent until the end of 1899 for the price mentioned in every case. Address FARMING, Toronto Canada.

the surface of wood there are numberless small pores and fissures.

"The joints and rims should be made smooth, and the cracks entirely filled with solder. Cheap tinware is put together so carelessly that the joints are often rough and uneven, and little projecting points of solder make it difficult to move the cleaning cloth along the seam. Pails and other circular tin vessels should have but one seam on the sides; better ones are made without a seam.

"In order to facilitate the cleaning of the outside utensils they should be so finished that every part can be easily reached by water and cloth. The outside of tinware should be finished as smoothly as the inside, and all wood apparatus should be carefully finished on the outside, being made smooth, and having as few projecting nuts, rods, and braces as possible."



Persiatic Hen-House Spray

Vermin is the most persistent enemy of the feathered stock. Keeps the fowl in bad health, listless and drooping; destroying its good qualities for show, lay or breeding purposes. Not much use in deterring the fowl until the houses are in shape. Strike at the root of the trouble by keeping them in perfect sanitary condition with Persiatic Hen-House Spray. No insects or lice can live after its application and one thorough dose lasts a long time. Keeps the atmosphere pure and healthy, destroying disease germs and the bad effects of gases, vapors, etc. Makes up for insufficient ventilation in the winter months.

If your dealer hasn't it, write us direct.

The Pickhardt Renfrew Co.

(LIMITED)

STOUFFVILLE, ONT.



For Sale 3 First-class Shortborn bulls, red roans. 40 good Yorkshire boars and sows, 6 weeks to 6 months. 20 Lengthy Large English Berkshire boars and sows, 5 months. 1 Shropshire ram lamb, from imported stock Write

H. J. DAVIS,

Woodstock, Ont.

Patchall

THE Twentieth Century Mender bids goodbye to the needle and thread. Welcomed by thousands of women and praised by men. No more dirt in your home from mending bags. PATCHALL mends grain bags, binder canvas, and all kinds of cloth. It is a great saver for the farmer. Straw passing through small holes, winding on the rollers of the self-binding harvester breeds evil. A small piece of canvas and a little PATCHALL saves time and money. A great success in grain warehouses wherever tried. Thousands of bags are now patched by PATCHALL. Eight patches, two inches square, cost a cent. If you cannot obtain it from your hardware dealer, send 25 cents, and we will mail a can to your address prepaid. Manufactured by Domestic Specialty Co., Hamilton, Ont.

BETTER BUTTER

Cleanliness, Ease and Money-making use the

MAPLE LEAF CHURN

Circulars Free on application.

WILSON BROTHERS

Collingwood, Ont

Thoroughbred Poultry For Sale

Trlo Dark Brahma Fowls for \$4.50. Trlo Dark Brahma Chicks for \$6.50. A few Dark Brahma Hens at \$1 50 each. Two Partridge Cochlin Cockerrois at \$2 each. One White Cochlin Cockerroil at \$2.50.

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

A. J. GEORGE,

Clarence St., - London, Ont.

BRONZE TURKEYS.

FOR SALE—Fifty head of choice stock from the best strains in America. M. Gobbler "Royal Tom" is the best and heaviest on the continent. Won 1st prize at the Kentucky State Fair, at Paris and Covington, Ky., with a score of 98 points; 1st and special for bravest turkey at Gueph and London poultry shows, 1903. Weight 46 pounds. Prices right Satisfaction guaranteed.

JAMES FORD,

Daunquin, Ont.

HATCH CHICKENS BY STEAM—with the simple, perfect, self regulating EXCELSIOR INCUBATOR. Thousands in successful operation. Lowest priced incubator made. GEO. H. STALL. Send for free Circulars and Price Catalogue. 114 to 123 N. 6th St., Guelph, Ont.

INCUBATORS Our Machines are the best manufactured in Canada, both hot water and hot air. Surest, simplest, and best system of regulating. Every machine warranted. Prices \$10 up.

EGGS FOR HATCHING from Silver, Golden, and White Wyandottes, Barred Plymouth Rocks, and Pekin Ducks only \$1.50 per setting. Stock unsurpassed.

Box M,

J. E. MEYER, Epsom, Ont

The Spramotor

The only way to prevent what's past is to put a stop to it before it happens, as Mrs. Partington would say. Many fruit-growers and farmers are induced to buy cheap sprayers, for one reason and another, and they always regret it. Cheap sprayers are always in need of repairs, cheap sprayers are always made of iron or mostly iron, and iron sprayers are useless in copper mixtures. You would not use a cast-iron carving-knife, because it's unsuitable.

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 SPRAMOTOR 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.

The SPRAMOTORS shoot mixtures stronger and even than any, which fact has greatly increased their sales.

The SPRAMOTOR will last longer than any other, and is therefore economical to buy.

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

Many times more SPRAMOTORS are used today in Canada than all others combined, which is one of the best arguments why you should buy one and be up with the procession. Nearly every first-class store in this country carry SPRAMOTORS in stock.

All the first-class brewers in Canada are using the SPRAMOTORS for whitewashing and disinfecting work.

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.

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SPRAMOTOR CO.

357 Richmond St., - London, Ont.

MARKET REVIEW AND FORECAST.

Office of FARMING,
44 and 46 Richmond street W., Toronto.
November 28th, 1898.

Considering that navigation for this season has about closed, trade throughout the Dominion is in a better condition than it has been for years. Though there is a backward movement of grain, business men say that accounts are met more readily and more orders for goods are coming in than for many years back.

Wheat.

The chief feature in the wheat situation just now is the heavy moving of grain in the north Western States, while the movement in Canada is unprecedentedly slow, and farmers here seem determined to hold their wheat for a rise. The exceptionally free movement of wheat in the West is, however, offset by the large exports of wheat and flour. The shipments of wheat and flour from the United States since July 1st, when the cereal year begins, are 8,000,000 bushels less than for the same time last year. There is, however, more wheat in the country than last year. Later reports from Argentine indicate that the crop there will be better than was hoped for a while ago. Likewise reports from Russia and the Danube are of a more hopeful character regarding the injury to this year's crop. It is, however, pretty well established that Bulgaria and some of the neighboring districts will not export the quantities credited to them earlier in the season. The world's supply of wheat in sight is now 45,232,000 bushels, showing a gain of 2,700,000 bushels on the week.

Of late the London market has been a fluctuating one, but according to reliable reports a firmer feeling has set in on the Baltic, Mark Lane, and other markets. The market on this side, as a rule, shows a firmer feeling also. Most of the wheat coming out is taken by millers, who have been paying from 71 to 72c. at points on the G. F. R. and C. P. R. west of Montreal. No. 1 hard wheat has been sold during the week at 71 to 71½c. afloat at Fort William, and May delivery is quoted at 75 to 76c. The market here shows a firmer feeling and buyers have had to raise prices in sympathy with the advance in the outside markets. The ruling figure is 69c. for red and white west. Goose is quoted at 70c. at outside places. Manitoba No. 1 hard is firm at 82c. east and 81c. west. On the local market red and white brings 74 to 74½c. per bushel; goose 70c., and spring 72c.

Oats and Barley.

Canadian oats are in good demand in the British markets. Receipts at Montreal have been increasing of late and quotations there are from 30 to 31½c. in store. The market here is firm at 26½ to 27c. for white west. They are quoted at 33c. on the local market.

The Montreal barley market continues firm and extra No. 1 quality has sold at 57½c. Quotations are 57 to 58c. The market here is steady at 50c. for No. 1 west.

Peas and Corn.

High prices for peas on the London market have checked the demand and prices have declined 1s. 6d. to 2s. per quarter. The export enquiry at Montreal seems to be over for this month and there is very little doing there in peas. Quotations are 65 to 69c. The Toronto market is firm at 60c. north and west, 67c. on the local farmers' market.

American corn seems to be in demand in England. Cars on track are quoted at Montreal at 44 to 45c. per bushel. Canadian yellow west is quoted here at 32 to 33c., and American at 42c. outside.

Bran and Shorts.

The Montreal market for these seems to be irregular and the general run of prices is \$13 to \$14 for Ontario bran, \$11 to \$11.50 for Manitoba bran in bulk, and \$15 to \$15.50 for shorts. The market here is firm and mill feed is scarce at \$14 to \$15 for shorts, and \$11 to \$13 for bran west.

Eggs and Poultry.

The demand for Canadian fresh and pickled eggs in London, Liverpool and Glasgow con-

THOSE \$6 ROBES

ITLL be harder to get one of 'em at \$8 or \$9 a month hence than it is now to get one for \$6. Nothing like 'em ever seen in Canada for the money. Without saying much, we're sending them out in dozens every day to all sections of the country. Orders coming in with every mail. Why wouldn't they? Never be a chance like it again. Think of it! A handsome, long-haired Goat Robe, 60 x 72 inches, plush lined, felt edged, selected skins, and entirely our own make for \$6. Not the kind of Robe that's made up in a hurry, but made specially by our own hands. No haste about the work. You get 'em for \$6, but they're being sold at \$8, and even higher. Can't last much longer—so hurry up.

MONEY BACK IF NOT SATISFIED.

Cummings & Sellers = 244 Yonge Street,
TORONTO, ONT.

Manufacturing Furriers

WE PAY CASH FOR FURS

tinues good, with an upward tendency in prices. Strictly new-laid eggs are one cent higher at Montreal, and quotations are 21½ to 22c.; single cases bring from ½ to 1c. more money. The stocks of pickled eggs there have been greatly reduced, owing to large shipments to England. Lined eggs are quoted at 14 to 15c., and held fresh at 15 to 16c. The receipts of new-laid here are not large, and they are selling better than other lines at 18c. Fresh-gathered are quoted at 14 to 15c. and culls at 11c. New-laid eggs on the local market bring above 20c.

The cold weather for Thanksgiving stimulated the demand for poultry, especially turkeys. But, notwithstanding this, supplies have been large at Montreal. Turkeys are quoted there at 7½ to 9c.; chickens, 6½ to 7c.; geese, 5 to 7c.; and ducks at 7 to 8c. per lb., as to quality. The demand here has been good, but there has been too much poor quality offered. When will farmers learn to fit their poultry better for market? Choice turkeys bring 7 to 8c., and geese 5 to 6c. per lb.; ducks, 35 to 60c., and chickens, 30 to 40c. per pair.

Potatoes.

At Montreal there is a demand for potatoes for shipment west of Toronto, and shippers east of Montreal pay 40 to 45c. per bag f.o.b. It does not pay to ship them to the States, as they are only quoted at 60 to 70c. per bag at New York. The cold weather makes it more expensive shipping, as the cars have to be heated. Montreal quotations are 53 to 55c. per bag for good stock, and 60 to 65c. in a jebbing way. The market here is quiet, and cars on track are quoted at 50 to 55c. Potatoes out of store bring 60 to 65c., and on the local market 55 to 65c.

Fruit.

The Montreal apple market continues firm for good choice stock. Sales of round lots have been made at \$3 to \$3.25 per bbl., with holders asking \$3.50. Good round stock has returned shippers a good profit. Sales have been made on the other side which have netted from \$2.75 to \$2.95 as far west as Chatham. There have, however, been heavy losses on poor stock sent forward, which will cut down the profits on the good stuff.

Hay and Straw.

As navigation has about closed at Montreal the demand for hay is slackening, and prices are easier. The Quebec farmers are still loaded up with the bulk of their big crop, and many of them will likely hold it over for another year. Large quantities have, however, gone forward at the low prices. Advices from Liverpool and London state that Canadian hay is in such good repute there that the people want more of it, and things might be helped considerably if only a reasonable ocean rate could be secured. Even though the demand is good over there, it is not possible to get it over at a rate that will allow shippers to pay a good figure on this side. Baled hay is quoted at Montreal at \$7 to \$7.50 for No. 1 timothy, \$5 to \$6 for No. 2, and \$4 to \$4.50 for clover. These are 50 cents per ton lower than a week ago. The market here is quiet at \$7 to \$7.50 for cars on track. Timothy on the local market

brings from \$8 to \$9.50, and clover \$5.50 to \$7.50 per ton. Baled straw is quoted at \$4.50.

Cheese.

The outlook for cheese is encouraging and holders consider cheese good property. Some sanguine dealers are already talking ten cent cheese. The heavy shipments of summer cheese made a month ago assisted by the Warrington failure helped to depress things in Great Britain, but this early stuff has been worked off by the increased consumptive demand and the market is in a very healthy condition. Prices have advanced a shilling at London and finest Canadian is now quoted at 46s. 6d. to 48s. and a large lot is reported sold at 49s. This week shipment from Montreal will close for this season with a much smaller amount left over in Canada than at this time last year. The total shipments from Montreal to Nov. 19 show a falling off of 234,764 boxes and those from New York a decrease of 259,750 boxes as compared with the same period last year making a total decrease of about 500,000 boxes so that there is a possibility of the predicted shortage this season of 700,000 boxes coming true. The fall make in England is short so that the situation all through has a decidedly healthy look. There is quite a demand at Montreal for Eastern cheese, which is quoted at 9 to 9½c. for finest; Western is quoted there at 9½ to 9¾c. for finest. Most of the local markets have shut down, but prices in the country should be fully 9 cents.

Butter.

The London and Liverpool markets are stronger, especially for fresh creamery. The latter has advanced 2s. for choice creamery, with a good demand at the rise. There is an improved feeling on this side for finest goods, and choicest creamery is reported scarce at Montreal. Heavy shipments of butter of late have depleted stocks pretty well, which are estimated at 5,000 to 10,000 packages, which is very small as compared with what was there six weeks ago. The shipments from Montreal up to Nov. 19th show an increase of 34,701 packages, and those from New York a decrease of 120,354 packages as compared with the same period for 1897, leaving a net decrease of 55,235 packages.

Already some winter creamery butter has gone forward and will continue to be shipped regularly during the winter. Good, choice creamery is wanted for export, and sales have been made at Montreal at 18½ to 18¾c. Qualities a little under this have realized 17¾ to 18c. Holders of choice, fresh creamery are asking 19c., but exporters say they cannot pay this. Western dairy is quoted at Montreal at 14 to 15c., and roll butter, which is more plentiful at 15 to 16c. Creamery is in fair demand here at 19 to 20c. for prints, and 18 to 19c. for tubs. The supplies of large rolls and dairy tub is more liberal and the quotations are 12 to 15c. Roll butter on the local market brings 18c., and dairy tub 14 to 15c.

Cattle.

Thanksgiving week, when there is always an increased demand for all kinds of poultry, is usually not a very brisk one for the cattle trade. This has been the case at most of the

American markets, though on Friday market here a very good business was done and good quality was in demand.

Export Cattle.—The offerings of these have been light. Choice, heavy exporters bring \$4 to \$4.25, and light exporters are firmer at \$3.75 to \$3.85. Choice, heavy export bulls bring \$3.65 to \$4, and light ones \$3.25 to \$3.40 per cwt. Loads of good butchers' and exporters mixed sold on Friday at \$3.65 to \$3.85.

Butcher's Cattle.—Choice, picked lots of these are scarce and ones weighing from 1,000 to 1,100 bring from \$4 to \$4.25; good, from \$3.40 to \$3.60; medium, \$3.25 to \$3.40; common, \$2.85 to \$3.10; and inferior, \$2.70 to \$2.75 per cwt.

Stockers and feeders.—Feeding steers are in better demand at Chicago. The quality of stockers and feeders at Buffalo has been getting poorer of late, and the market there for these is easier. Good feeders here are not in large supply and are firmer at \$3.40 to \$3.65 per cwt. Feeding bulls bring from \$2.50 to \$2.70. Buffalo stockers were in good demand on Friday, selling at \$2.75 for inferior, \$3 to \$3.15 for good, and \$3.25 to \$3.35 for choice, well-bred steers.

Milk Cows.—These are from \$25 to \$48 each as to quality, with \$50 for really choice milkers.

Calves.—These are in better demand at Buffalo and are quoted at \$7 to \$7.75 for good to choice. The general run sell here at \$3 to \$6 each with veals of extra weight bringing \$5 per cwt.

Sheep and Lambs.

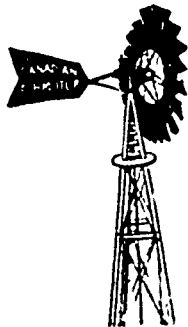
Eirick Bros.' East Buffalo weekly circular of Nov. 23rd says: "The trade in lambs the last ten days has been in very bad shape, due to light demand. The outlook is a little more encouraging on good fat handy sheep, and I look for a better demand from this out on them." Towards the end of the week, however, lambs were in more active demand there and sheep were firm. The offerings here have been liberal though prices have not changed, and are \$3.25 to \$3.40 for ewes and \$3.50 for choice picked lots. Bucks bring \$2.50 to \$2.75. Lambs are about the same at \$3.90 to \$4.12 1/2 per cwt., with choice picked lots of ewes, and wethers at \$4.25 per cwt. for export. These prices are from \$2.75 to \$3.75 each.

Hogs.

The American markets have been fairly active during the week. Deliveries here have been fair, and choice bacon hogs weighing from 160 to 220 lbs. each, unfed and unwatered off cars, bring from \$4.25 to \$4.37 1/2 per cwt. Light, and thick fat hogs bring about \$4 per cwt. A special cable to *The Trade Bulletin* from London of November 23rd reads: "A decided change for the better has come over the market for Canadian bacon, which is firm and 2s. per cwt. higher. No. 1 Canadian bacon, 45 to 47s., and fat and stout sides, 40 to 42s."

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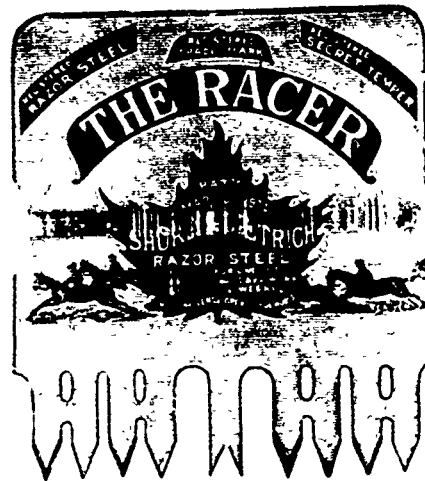
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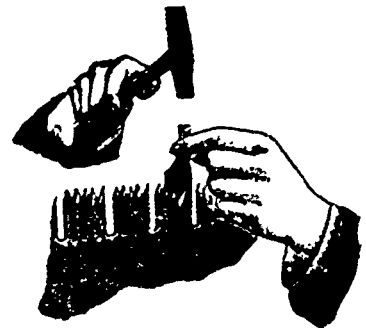
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Directions.—Place the Set on the point of tooth as shown in the above cut, and strike a very light blow with a tack hammer. If you require more set, file the tooth with more bevel. If you follow directions you can not make a mistake. Be sure and not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

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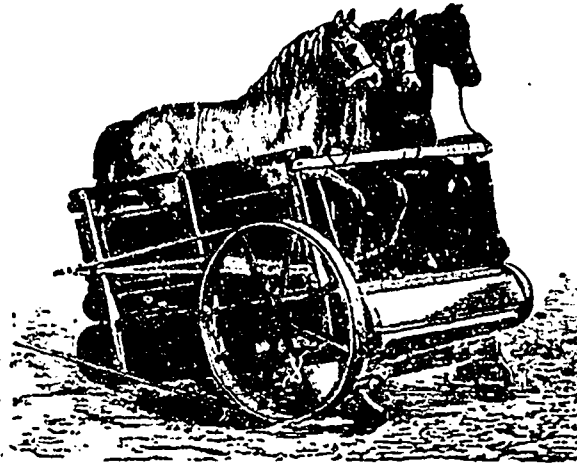
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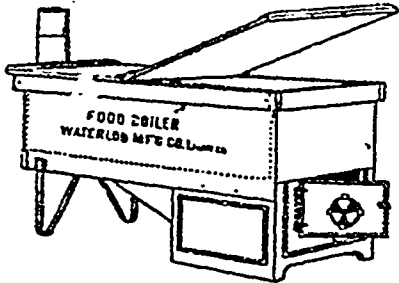
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Used chiefly by Farmers, Stock Feeders and Butchers for
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For BOILING SAP,
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The Most Economical on Fuel and the Most Convenient for all-round purposes of any Cooker in the Market

IT PAYS TO BOIL FEED for STOCK, HOGS and POULTRY

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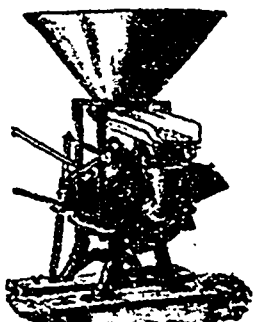
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GUELPH'S CHRISTMAS FAT STOCK AND POULTRY SHOW

THE seventeenth annual Christmas Fat Stock and Poultry Show, under the auspices of the Guelph Fat Stock Club, the South Wellington Agricultural Society, and the Guelph Poultry Association, will be held in the Victoria Curling and Skating Rink, in the City of Guelph, on Tuesday, Wednesday and Thursday,

DECEMBER 6th, 7th and 8th, 1898

Exhibits must be in place at 1 o'clock p.m. on the 6th.

Price lists on application.

JAMES MILLAR, President.
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Over \$4,000 given in Cash Prizes.

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The exhibit in the fat cattle dairy and sheep departments promises to be better than ever before. The exhibit in the swine department will be very large, and for the first time in this Province prizes will be awarded for the best dressed carcass. Animals in all classes and sections will be judged from a consumer's standpoint.

During the time of the Exhibition the following meetings will be held:

A Joint Public Meeting, at which the Hon. A. S. HADY will preside, will be held in the Opera House, Brantford, on the evening of November 30th. An excellent programme has been provided.

On November 30th the annual meeting of the American Oxford Down Record Association; Secretary, W. A. Shafer, Middletown, Ohio.

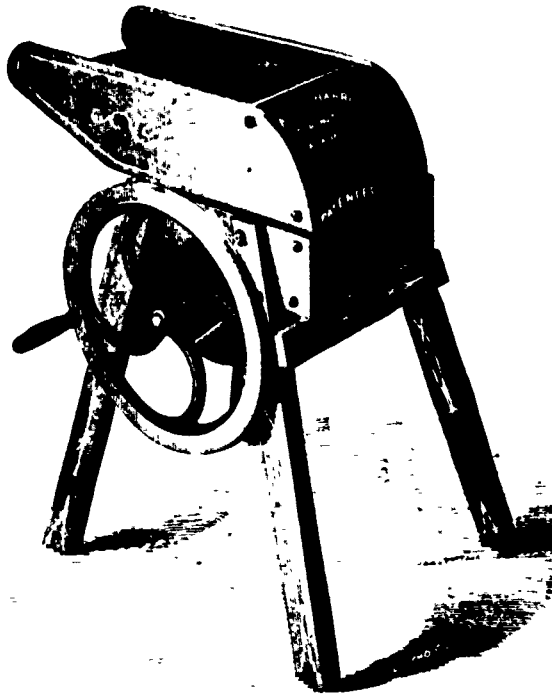
On December 1st, the annual meeting of the American Leicester Breeders' Association; Secretary, A. J. Temple, Cameron, Ill.

On December 2nd, the annual meeting of the Dominion Swine Breeders' Association; Secretary, F. W. Hodson, Parliament Buildings, Toronto.

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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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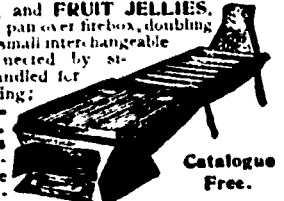


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Extract from Annual Report for 1897

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. In 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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