

MANITOBA AND WESTERN EDITION

THE FARMER'S ADVOCATE

AND HOME MAGAZINE

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* AGRICULTURE, STOCK, DAIRY, POULTRY, HORTICULTURE, VETERINARY, HOME CIRCLE.*

J. H. Griesdale & Co. Feb 20, 1900
Exp. Farm, Ottawa

Vol. XXXV. LONDON, ONTARIO. JANUARY 5, 1900. WINNIPEG, MANITOBA. No. 493

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CONTENTS OF THIS NUMBER.

	PAGE.
MANITOBA'S LIVE STOCK STATISTICS FOR '98 AND '99	3
TREE PLANTING	3
GRAIN COMPETITION FOR PARIS EXPOSITION IN N.-W. T.	3
FRAUDULENT PACKING OF APPLES	3
SMALL SAMPLES OR LARGE LOTS FOR TEST PURPOSES	3
SECURING EXTRA COPIES OF THE CHRISTMAS NUMBER	4
COULD NOT DO WITHOUT IT	4
ANNUAL MEETINGS OF AGRICULTURAL SOCIETIES—OFFICERS ELECTED	4
WANTS MORE ELEMENTARY AGRICULTURE	4
C. P. R. GENEROUS TO THE WINNIPEG INDUSTRIAL	4
HEREFORD STEER (ILLUSTRATION)	5
ABOUT RAMS	5
INDEX OF FARMER'S ADVOCATE ARTICLES FOR 1899	5
WINTERING IDLE FARM HORSES	5
HOLSTEIN COW, AALTJE POSCH 4TH (ILLUSTRATION)	5
THE HESSIAN FLY IN EASTERN MANITOBA	6
WINTER DAIRYING IN ALBERTA	6
WHEAT FROM PEACE RIVER, 700 MILES NORTH OF EDMONTON	6
THE WINTERING OF IDLE FARM HORSES	6
THE OUTLOOK FOR LIVE STOCK	6
OUR SCOTTISH LETTER	7
SHORTHORN STEER, FREE TRADE (ILLUSTRATION)	7
THE ONTARIO PROVINCIAL FAT STOCK AND DAIRY SHOW	8
SHROPSHIRE SHEARLING WETHER (ILLUSTRATION)	8
ONE WETHER AND FOUR EWE LAMBS, SHROPSHIRE (ILLUSTRATION)	9
SOUTHDOWN SHEARLING WETHER (ILLUSTRATION)	10
THE SMITHFIELD FAT STOCK SHOW	11
MR. W. D. FLATT'S GREAT SALE OF SHORTHORNS	12
TYPE OF HOGS FOR BACON PRODUCTION	12
SINGLE JUDGING APPROVED	12
THE BEST SERVICE	12
BERKSHIRE SIDES AT ONTARIO PROVINCIAL FAT STOCK AND DAIRY SHOW (ILLUSTRATION)	12
DIAGRAM SHOWING VARIOUS CUTS OF A SIDE OF BACON, AND THE AVERAGE PRICES REALIZED IN ENGLISH MARKETS IN 1897 (ILLUSTRATION)	12
EFFECT OF FOOD ON QUALITY OF MILK	13
WINTERING OF IDLE FARM HORSES	13
THE PROFIT IN STOCKERS	13
THE WINTER SHOW	13
SIDES OF TAMWORTH BACON HOGS AT ONTARIO PROVINCIAL FAT STOCK AND DAIRY SHOW (ILLUSTRATION)	13
FARMERS' INSTITUTES	14
GALVANIZED NAILS	14
BETTER THAN WAR NEWS	14
PROF. ROBERTSON'S PRIZES	14
DRESSED CARCASSES OF DORSET HORN, SUFFOLK AND SOUTH- DOWN AT ONTARIO PROVINCIAL FAT STOCK AND DAIRY SHOW, 1899 (ILLUSTRATION)	14
CROSS SECTIONS OF SOUTHDOWN CARCASSES AT ONT. PROVINCIAL FAT STOCK SHOW (ILLUSTRATION)	14
DRESSED CARCASSES OF MUTTON AT THE ONTARIO PROVINCIAL FAT STOCK AND DAIRY SHOW, 1899 (ILLUSTRATION)	15
QUESTIONS AND ANSWERS—VETERINARY: NETTLE RASH; IN- DIGESTION IN CALF	14, 15
MISCELLANEOUS:—BOOK ON RUNNING A STEAM ENGINE; BAR- LEY FOR MILCH COWS—PULPING ROOTS—STEAM BOILER—GASO- LINE ENGINE; KEROSENE EMULSION FOR LICE	15
ANNUAL POULTRY SHOW	15
MARKETS:—CHATTY STOCK LETTER FROM CHICAGO	15
VALUABLE MATTER HELD OVER	15
THE CHRISTMAS NUMBER AND AGRICULTURAL EDUCATION	15
COMMENT ON THE CHRISTMAS FARMER'S ADVOCATE	15
HOME MAGAZINE.	
UNCLE TOM'S DEPARTMENT	16
THE CHILDREN'S CORNER	16
THE QUIET HOUR	17
OUR COMING DEFENDERS (ILLUSTRATION)	17
PUZZLES	18
GOSSIP	19, 21, 22, 23, 24, 25, 26
LIVE STOCK BREEDERS' ANNUAL MEETINGS	19
DOMINION SHEEP BREEDERS' ASSOCIATION	20
THE PRIZE LIST, PROVINCIAL SHOW, 1899	22
DOMINION CATTLE BREEDERS' ASSOCIATION; AMERICAN LEAF- TER BREEDERS' ASSOCIATION	24
DOMINION SWINE BREEDERS' ASSOCIATION	25
HEREFORD BREEDERS' ASSOCIATION	26
NOTICES	19, 23
ADVERTISEMENTS	1 and 2, 19 to 28

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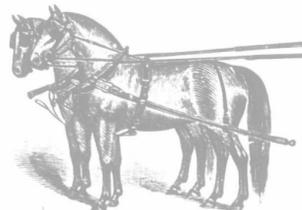
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AND HOME MAGAZINE

* AGRICULTURE, STOCK, DAIRY, POULTRY, *
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VOL. XXXV.

LONDON, ONT., AND WINNIPEG, MAN., JANUARY 5, 1900.

No. 493

Manitoba's Live Stock Statistics for '98 and '99.

A comparison of the December live stock reports for 1898 and 1899 of the Manitoba Department of Agriculture, shows that this industry is only barely holding its own. The number of horses in the Province, according to the 1898 estimate, was 101,836, while the hundreds of carloads imported during the year from Ontario and the States, the bands driven in from the west, and the foals bred in the country, only increase the total to 102,635. Manitoba is said to be a hard country on horses, but surely the death-rate does not equal the unprecedented importation of 1899. As these figures given are doubtless approximately correct, how can this slight increase be accounted for? In cattle: 1898 showed 227,007; 1899, 220,248; but it is estimated that 12,000 head were exported, 25,000 yearling stokers shipped to the ranches of the Territories, and 10,000 stokers shipped to the United States, and in addition to this must be recorded the number required for local consumption, which is an ever-increasing quantity. It is worthy of note in connection with the trade in stokers, that in 1898 20,000 went to the States, and 9,500 to the Territories, whereas this past year only 10,000 go to the States, while 25,000 were sent to our own ranches. This may be accounted for by the big freight reductions made on stokers to the west, the railway company seeing it was to their benefit to retain these latter in their own territory, so as to get the long haul on the finished exports, and the discovery on the part of rancher and dealer that a profitable business could be done in finishing these young cattle on the unlimited grass area of the west.

In sheep a slight increase is shown, from 32,053 in 1898 to 33,002 in 1899. A falling off is shown in swine, 66,011 in 1899 against 69,648 in 1898, and the statement is given that over 5,000 had to be imported by the packers from Ontario, in addition to heavy importations of hog products, in order to supply local demand. The months of November and December, however, show a big increase in receipts of hogs, and a more regular supply is now looked for.

The statistics regarding poultry show a most encouraging increase, although we are still obliged to import largely from Ontario for our Christmas supply; the figures given are interesting. The number of poultry disposed of by farmers is given as:

	Turkeys.	Geese.	Chickens.
1898.....	31,155	13,010	127,660
1899.....	65,845	25,135	146,205

If this percentage of increase is kept up for a year or two, Manitoba will not only be able to supply her own market, but have some fowl to send to the great mining districts of British Columbia.

Tree Planting.

The most sensible scheme yet proposed for aiding in the more general introduction of tree culture throughout the prairie farms of the west, is that outlined by Jas. A. Smart, Deputy Minister of the Interior. His proposition, as we understand it, is to have a staff of two or three trained men connected with each of the experimental farms, whose special duty it would be to instruct and assist farmers to properly plant and care for trees. Of course only those expressing a desire for such assistance, and undertaking to give the required protection, would be aided. The tree experts would make annual visits to inspect the plantations, advise as to further cultivation, pruning etc., etc.

No word is needed as to the desirability of the more general planting of trees for the shelter of the homesteadings and the beautifying of the home surroundings, but although the fact that trees will grow almost anywhere throughout the whole Northwest with proper cultivation has been demonstrated beyond question, still a large percentage of the settlers' homes are treeless, and bare of any attempt at sheltering or beautifying. Every year thousands of trees of the hardiest kinds are dis-

tributed from the Experimental Farms, and have been annually for years, yet nine-tenths of these are stuck in the ground and then left to fight for their lives with grass and weeds, and of course the latter gain the victory. To grow trees of any kind, thorough and persistent cultivation is a first essential, and of course there is also great importance in setting them out properly and pruning them the first year, so that when they have grown they serve a useful purpose, and present an attractive appearance.

Grain Competition for Paris Exposition in N.-W. T.

As announced in the July 5th issue of the FARMER'S ADVOCATE, the Territorial Government offered at each of the fall shows of 300 cash prizes for the best exhibits of wheat, oats and barley, grown in the season of 1899. Prizewinning samples to be shipped to Regina, where gold, silver and bronze medals would be awarded to the best samples forwarded. For this latter competition agricultural societies, having held summer fairs during this year, could also contribute exhibits. Samples winning prizes to become the property of the Government, from which to prepare a grain exhibit for the Paris Exposition. Nineteen agricultural societies sent in exhibits, namely: Grenfell, Qu'Appelle, Moosomin, S. Edmonton, Broadview, Maple Creek, Central Saskatchewan, Stirling, Lorne, Whitewood, Moose Jaw, Alameda, East Moose Mountain, Moose Mountain, N. E. Assiniboia, Lt. Cut Arm and Qu'Appelle, S. Saskatchewan, Gainsboro, Pheasant Forks. Following is a list of the prizewinners: 1st, Red Fife wheat, T. Cunningham, Broadview, Broadview Agricultural Society; 2nd, Red Fife wheat, Alexander Donaldson, Fort Qu'Appelle Agricultural Society; 3rd, Red Fife wheat, Wm. McMillan, High View, Assa., Moosomin Agricultural Society; 1st, oats, P. Grimsky, Churchbridge, Assa., N. E. Assiniboia Agricultural Society; 2nd, oats, Thos. Daly, Clover Bar, Alta., S. Edmonton Agricultural Society; 3rd, oats, R. Kells, Maple Creek, Assa., Maple Creek Agricultural Society; 1st, barley, P. Grimsky, Churchbridge, Assa., N. E. Assiniboia Agricultural Society; 2nd, barley, W. Clements, Cannington Manor, Assa., East Moose Mountain Agricultural Society; 3rd, barley, L. W. Griffin, Moosomin, Assa., Moosomin Agricultural Society. Grain Inspector Horne judged the wheat, and Experimental Farm Superintendent Angus McKay the oats and barley.

Fraudulent Packing of Apples.

To the Editor FARMER'S ADVOCATE:

I am induced from long experience of the fraud imposed on Manitobans and others of the Northwest Territories in the shipment of apples from Ontario, this past season has been the worst I have witnessed. All the best apples are picked and put on top of the barrel and the inferior ones below; and very inferior they are. No doubt many of them are picked off the ground, as many are rotten and very worm-eaten. The average price for winter apples has been \$1.50 per barrel retail, and when a quarter of them are rotten it makes them almost prohibitory to the farmers. I am writing this in hopes some action will be taken to prevent this fraud. What would be said of a farmer who topped off his bags of wheat, putting inferior in the bottom? This has been done by unscrupulous persons, still few would stoop to that practice. I believe much of the produce of Canada sent to England is treated in the same way, and is the cause of the bad name given to Canadian produce. The British public will not submit to such fraud, but we have to or go without apples, as they cannot be grown here, and so many of us know well the luxury of an apple. A MANITOBA VICTIM.

[This fraud above referred to has been all too common, and from personal experience we know the west has long enough been made a dumping ground for the wind falls and wormy apples of the east, made to sell by placing a layer or two of good fruit on top of the barrels. It has been particularly noticeable this year, perhaps, on account of the inferior quality of the apple crop. A severe lesson has at last, however, been taught to many shippers by the trade buying on Winnipeg inspection, and many carloads have been rejected; these have been disposed of by public auction in the city at prices only a little more than sufficient to pay the freight charges. This should, and doubtless will, prove a wholesome lesson, and put a stop in some measure at least to this wholesale fraud.]

Small Samples or Large Lots for Test Purposes.

The following letter from Superintendent McKay, of the Indian Head Experimental Farm, was received too late for publication in our last issue. The extract which misrepresents what Mr. McKay said, was taken from the report of a special correspondent, and there was not the slightest intention on our part to draw wrong inferences. As stated in the article of Dec. 5th issue, the distribution of small one-pound packages of cereal grains seems of little practical benefit in Western Canada, where seasons are short, and time and conveniences for looking after small trial lots of grain unlimited. The plan suggested by Mr. McKay seems much more likely to prove practically beneficial:

To the Editor FARMER'S ADVOCATE:

Your article in last issue on "Distribution of Small Packages of Seed Grain from Experimental Farms" is misleading, in so far as your report of what I said at an Institute meeting in Alberta is concerned.

Your report is as follows:

"The plan of sending round to farmers a few pounds of seeds of different varieties of grains, etc., grown on the Experimental Farm, had not worked very well. The quantities were too small for the recipients to devote attention to the growth, etc. It had therefore been decided to adopt a different plan. Sufficient seeds of several varieties to sow an acre would be sent to the Agricultural Societies that applied for them, and then these could be entrusted to farmers in whom the Society had confidence. Farmers in several districts would then be able to conduct their own experiments. The Experimental Farm was in Assiniboia, and it was possible that certain seeds and particular methods that were suited to that part of the country might not be suited to Alberta. By the plan above indicated the kinds suited to the different districts would be ascertained, and thus would the farmer be benefited."

The facts are:

At the Red River meeting a gentleman complained that the Experimental Farm at Indian Head was of very little use to farmers in Alberta on account of the distance, and that while the Farm sent up a good many samples of grain, they were either not suitable to the climate of Alberta or the recipient did not take care of them. He then asked why an Experimental Farm could not be established at Red Deer, which was near the center of Northern Alberta.

The Hon. Mr. Bulyea, Commissioner of Agriculture for the Northwest Territories, who was present, replied, stating what was being done in this line at Calgary, and that he hoped, in the near future, an Experimental Station would be started along the line of railway to serve all the northern districts.

On Mr. Bulyea closing his remarks, I made the following offer to the Agricultural Society of Red Deer, whose president was, I think, chairman of the meeting: "That as there was no chance of Red Deer having an Experimental Station for some years at least, and as I was aware of the fact that many of the samples sent from the Farm at Indian Head were thrown away or given improper treatment, if the Agricultural Society would take charge and grow the crop, I would undertake to send the Society sufficient seed to sow one acre each of two or three varieties of wheat, and the same of oats and barley, the Agricultural Society to pay freight charges on seed, to thresh the grain, and finally to distribute to, or sell to, the members of the Society the product of all the varieties, or only those giving best results."

Two points would be gained by following this plan. One in securing reliable data as to varieties of grain most suitable for Alberta, and the second in allowing the members of the Society to secure seed of the varieties so found.

No mention whatever was made as to a decision to adopt a different plan in the distribution of samples than has been followed here before, and I made the offer entirely on my own responsibility in the hope that it would relieve the Farm of the necessity of distributing so many small samples, take less seed than was distributed each year in the three-pound samples, and prove a benefit to the district accepting the proposition, which was subsequently made to several agricultural societies in Northern Alberta. Yours truly,

ANGUS MCKAY, Supt.

JOHN LEASK, Virden, Man., Dec., 1899: "I like the ADVOCATE."

THE FARMER'S ADVOCATE

AND HOME MAGAZINE.

THE LEADING AGRICULTURAL JOURNAL IN
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WINNIPEG, MANITOBA.

Securing Extra Copies of the Christmas Number.

Judging from present indications, and the gratifying reception the number has met, there will be a great demand for additional copies of the Christmas number of the FARMER'S ADVOCATE. In order to provide against this, we printed a limited number more than required to supply our regular subscribers. To non-subscribers the price is 50 cents per copy. However, any subscriber whose subscription is already paid up for 1900, or who sends in his renewal, may at the same time secure extra copies by remitting for the number desired at 25 cents each. Nothing more attractive or valuable could be sent out this season to an absent member of the family or friend. Or without any outlay of cash whatever, one copy may be obtained very easily as a premium for the name of each new subscriber sent us, accompanied by the subscription price (\$1). We would advise our friends to lose no time in making provision by one or the other of the above plans to secure copies of the paper before the supply is exhausted. Until further notice each new subscriber will also receive a copy of the Christmas number.

Could Not Do Without It.

John Blackburn, Bruce Co., Ont., writes:—"I wish to say to the readers of the FARMER'S ADVOCATE, that I have been reading the ADVOCATE for the past year, and I cannot understand how I could now get along without it. It is a valuable paper and well worth more than \$1 a year; in fact, I would not be without it for twice that amount."

"P. S.—Please give me the address of the Chicago Horseman."
[38 Dearborn St., Chicago, Ill.]

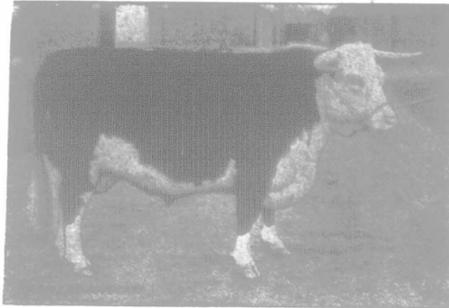
Dr. L. O. Bournival, Three Rivers Co., Que.—"Christmas number is a revelation to me. It would be difficult to make it nicer or of more interest. I enclose my subscription with much pleasure for so valuable and up-to-date an agricultural paper."

Annual Meetings of Agricultural Societies—Officers Elected.

REGINA AGRICULTURAL SOCIETY.
At the annual meeting of the Regina Agricultural Society, held on Dec. 16th, the following officers were elected for the ensuing year: President, G. Spring-Rice; 1st Vice-President, R. H. Williams; 2nd Vice-President, Jas. Bole; Treasurer, J. W. Smith; Secretary, Wm. Trant. Directors representing Regina, J. W. Smith, A. J. Fraser, F. N. Darke, G. Mechalis, Robt. McKell, W. B. Pocklington; Hedgesford, R. C. Spera; Comden, R. Bourne, Wm. Clancy; Sherwood, S. Beach; Greendyke, Walter Simpson; Sterling, Henry McIlree; Boggy Creek, R. Alexander; Edenwald, Paul Brett; Baljorie, D. R. Kinsbury, J. R. Agu; Davin, J. Hicks; Peuse, John McGillivray, A. McLaren; Cottonwood, H. D. Buchanan; Carsdale, E. Cars; Lumsden, Jas. Mutch; Longlaketon, J. H. Barnes; Tregrava, W. Seed; Keernell, H. C. Lawson.

PORTAGE AGRICULTURAL SOCIETY.
At the annual meeting of the Portage and Lakeside Agricultural Society, held on December 12th, the following officers for the ensuing year were elected: President, F. W. Brown; 1st Vice-President, W. Fulton; 2nd Vice-President, Sheriff McLean; Secretary-Treasurer, Capt. W. Shepperd; Auditors, D. McCowan, G. B. Housser. Directors—T. W. Muir, Wm. McBride, A. J. Fraser, Jas. Glenzie, T. Charlton, A. McLeod, W. D. Taylor; Honorary Directors, Geo. Tidsbury, Walter Lynch. The 1900 fair will be held in July, previous to the Winnipeg Industrial.

BEAUTIFUL PLAINS SOCIETY.
The officers elected at the annual meeting of the Neepawa Agricultural Society were: Messrs. J. H. Irwin, J. A. McGill, G. S. McGregor, Jos. Laidler, W. Brydon, J. B. Govenlock, W. Card, G. A. McKenzie, T. B. Willans, and W. Jackson. The Directors elected G. S. McGregor, President; J. A. McGill, 1st Vice-President; J. H. Irwin, 2nd Vice-President, and John Wemyss, Secretary. Financially the Society is in good standing. A summer



HEREFORD STEER.

Winner of first prize and championship at "Smithfield," Norwich and Birmingham Shows, 1899.
PROPERTY OF HER MAJESTY THE QUEEN.

fair of two days was decided upon; dates to be named later.

MORDEN AGRICULTURAL SOCIETY.
Officers elected for 1900 at the annual meeting were: J. T. Hutchison, Wm. Topley, Dr. McConnell, John Borthwick, J. Kennedy, Robt. McClain, John McClain, Jos. Bryans, J. Ewen, Oswald Bowie. J. T. Hutchison was elected President; Robt. McClain, 1st Vice-President; John Borthwick, 2nd Vice-President; John Gilchrist, Secretary. The next annual fair will be held on Sept. 27th and 28th.

MELITA.
For the ensuing year the officers elected at the annual meeting of the Agricultural Society are as follows: President, W. D. Skelton; 1st Vice-President, John Williams; 2nd Vice-President, Jas. Pummell; Secretary-Treasurer, A. D. Wheeler. Directors—J. S. Thomson, J. F. Atkinson, Phil. Reekie, A. P. Sinclair, I. T. Lennox, A. M. Reekie, A. M. Campbell, J. A. Ross and W. J. Graham.

KILDONAN AND ST. PAUL'S.
The annual meeting of the above Agricultural Society was held on December 11th. The Secretary-Treasurer's report for the past year showed the Society to be in a healthy financial condition. The officers elected for the ensuing year are: President, R. R. Taylor; 1st Vice-President, Geo. F. Munroe; 2nd Vice-President, S. R. Henderson; Secretary-Treasurer, D. W. McIvor. Directors—Chas. Midwinter, H. C. Whellams, Sam. Taylor, Edwin Hodinott, James Garvin, J. R. McDonald, and Magnus Harper. Auditors, J. N. Bottomley and A. J. Kayll. The dates arranged for 1900 exhibition are October 4th and 5th.

SOTRIS AGRICULTURAL SOCIETY.
At the annual meeting, held in December, the following officers were elected: President, G. Wood; 1st Vice-President, A. J. Hughes; 2nd Vice-President, F. V. Young. Directors—W. H. Mearns, W. Herriot, J. Nation, W. A. Dolmage, Geo. Moffatt, E. J. Crawford, R. W. Currie, R. I. Crisp, Secretary. It was decided to have a summer fair this year, the date selected being Aug. 7th and 8th, following the Brandon Fair.

Wants More Elementary Agriculture.

To the Editor FARMER'S ADVOCATE:
Having only just begun to take your journal, it is rather early to say how highly I esteem it. The various articles are vigorous, practical, and not the least interesting are the columns devoted to the family circle, which I read with sincere pleasure and profit. Having children in England, I have felt inclined to send my copies for their edification, but my innate selfishness has prevailed, and I file them for future reference. In your short article in the issue of Nov. 6th, "Preparing for Winter," I should like to emphasize your hints re better stabling, and could give you several recent instances which have occurred in this district. One settler lost two horses and another three, all through want of ordinary care and rotten filth in the stables, yet, strange to say, neither think themselves to blame, but say "the climate of Manitoba or its herbage are not suitable for Ontario horses," and many believe them. Of course, you will say nonsense, it is ignorance and laziness that is to blame and not the country, and "so say we all of us." However, it is a newly-settled district, and we have many things to learn, so much so, I must, in view of a suggestion I am about to make, ask you to omit both name of place, and also my name. Do you not think the paper ought to be called "The Stock Farmer's Advocate?" because of the prominence given to these subjects. I merely call attention to this disparity in order to pave the way for my request. Give more attention to agriculture, and let it be elementary, to meet the wants of our ignorance, being only a new settlement, and strangers in a strange land, under some such title as this: "How I Ran My Quarter Section, from Entry to Patent," with an account of what I did, my failures and successes, with advice to new settlers, by a practical farmer.

[Our correspondent has no need to so carefully protect his identity, as his criticisms are perfectly fair and his suggestions most welcome. The ADVOCATE makes no pretense to having already attained perfection. "PERSEVERE AND SUCCEED" has been the motto of the FARMER'S ADVOCATE ever since it was founded in 1886, and we are still conscious of the need of keeping all that is implied in that motto clearly before us. Effort, continued and unremitting effort, is necessary to meet the exacting requirements of an ever-increasing circle of readers.]

In every branch of agriculture we endeavor to furnish the most practical, sensible, and seasonable matter; at some seasons of the year more attention is given to special branches, as they may be of more immediate importance and interest. As "Pistol" continues longer a careful reader, following each issue throughout the round of the season, we feel sure he will find all the important departments of farm work pretty well evened up.

With the advent of another year, feeling in our veins the stimulus and encouragement given by the approbation so kindly and generously expressed by many hundreds of readers at the measure of success already attained, we press on with a determination to make every issue of the ADVOCATE more than ever helpful and interesting to our largely increased constituency. Greatly assisted in the past by a large staff of field correspondents, we seek the continued co-operation of practical and successful men in every branch of farm work, and always welcome suggestions for improvement.]

C. P. R. Generous to the Winnipeg Industrial.

For several years the Canadian Pacific, in order to encourage the good work being done by the Winnipeg Industrial Exhibition Association, gave free transportation to all exhibits to and from the fair. Last year, however, it was decided that no longer could such specially favorable terms be given to this exhibition, and a small fee was charged. As a result of an interview between the general manager, F. W. Heubach, when in Montreal recently, and President Shaughnessy and Mr. Bosworth, the following announcement is made: "The Canadian Pacific Railway have recognized the special efforts of the directors of the Winnipeg Industrial in their determination to make next year's annual exhibition commemorative of the opening of the twentieth century, by donating to the Association a cash subscription equal to the revenue received for the transportation of exhibits." This handsome contribution to the finances of the exhibition will, we trust, enable them to make a very material increase in the cash prizes offered in the more important classes. The small freight charge on exhibits last year seemed to affect the number of horse entries more than any other department of the fair. The exhibitors of horses are not as yet, generally speaking, breeders of pure-bred stock that are assisted in their business by winning prizes, but are mostly individuals who have one or more extra good horses in which they take pride, and for the honor of it like to show them at the Industrial, but to warrant them in doing so, they must have reasonable assurance that the prize money to be won will compensate them for all necessary cash outlay. As competition increases in all departments of the fair, the prizes offered should increase, and an addition of \$8,000 or \$10,000 to the prize list would be one of the most stimulating advances that the management could make to insure the success of the twentieth century fair.

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About Rams.

A good ram is a cheap ram; and, of course, conversely, a poor one is a dear one. A good ram is a cheap one, in the first place, because all good articles are cheap. The margin of profit on a medium or on an inferior article is small, because there is greater competition in the moderate grades of all things than in the better ones. There are more poor articles in existence than there are good ones, and more good ones than there are excellent ones. It is the excellent ones that draw their own price; the poor ones have to hunt buyers.

In the second place, it is easier to get one good animal than it is fifty or sixty, and supposing a ram will serve this number of ewes, it is plain that it is cheaper and easier to improve the offspring through the male than through the female, supposing, of course, that the influence of male and the female in determining the character of the offspring is as great on one side as on the other. But it is generally admitted that the influence of the male is greater. The male is generally held to possess what is called prepotency, or the power of stamping in an eminent degree his character in his offspring. It is supposed that the male contributes to the offspring the general frame, build, outward form, and appearance, and that the female contributes the vital and nervous organism. Without going into details, however, on these points, every sheepman can see from his own experience the striking resemblance of all of a bunch of lambs to the male, in spite of the rather mixed character of the ewe flock, or he will have remarked the differences in the get of two or more rams in the same flock in a single year.

The question of rams is an important one in the West. Ewe stock in the big bands is uniformly Merino at the bottom. The cheapness of these, and their hardy qualities, such as being good travellers, and being indifferent to bad weather, place them right at the front as ewe stock on the ranches. For mutton, however, the English breeds are held far superior, and sheep keeping in the West so far has been principally the building up of mutton flocks by repeated infusion of English blood, and the consequent elimination of the Merino. As stud flocks are few in the country, the rams have been drawn principally from outside, mostly from Ontario, where no doubt the highest products of the shepherd's art are to be found in the mutton breeds, except on the other side of the Atlantic.

There may be some who look to a cheaper supply of rams by the larger establishment of stud flocks in the West. Importers contribute four or five dollars a head to the Canadian Pacific Railway, which the Western shepherd has to pay, besides, perhaps, ten or twelve dollars a head for the rams, if they are lambs on the go in, and two or three dollars a head to the middleman for risk and legitimate profit, which brings the price up to about eighteen or twenty dollars. Shearlings are double the original cost, with a little more expense in shipping, which brings them up to twenty-five or thirty dollars each. These prices seem high for the numbers required. Besides, the flat backs and heavy, greasy fleeces disappear with the transportation of these rams into a new country, where to live is to rustle and not to gather large supplies of luscious mixed grasses, with little travelling in summer, or to eat eight or ten pounds of turnips a day, clover hay, and a little peas and oats under shelter in winter. It probably occurs to many Western shepherds that a native ram, i.e., one bred in the country from good mutton stock, might come cheaper and do his work without apparent loss of flesh or of vigor. Probably he would. Sheep possess considerable power to adapt themselves to changes of environment and to changed circumstances, and there is no reason to suppose that in both Manitoba and the Northwest Territories good stud flocks will not become established and prosper.

But this will not be done by what are characteristic Western methods, i.e., by the common, all-the-year-round, rustling system. The fine mutton form, the characteristic qualities of early maturity, and the size are in Ontario as in England—the peculiar outcome of heavy, luscious, mixed feeding in comparatively small flocks, and it is under such conditions that these qualities are going to be improved upon or retained. The retention of these characteristics is a larger proportion than will perhaps be readily admitted by all, but it is big none the less. If sheep show considerable adaptability to changed circumstances, as all animals do under culture and domestication, the converse is true, and is a natural and complementary truth, namely, that the withdrawal of attention or of culture and care means the loss of acquired characters just as readily and just as easily. The inviolable biological truth, too, that the size of the individuals of any species varies inversely, as the numbers composing the species living together operates all the more surely, the more animals are left to provide for themselves, as in a state of nature. The biggest problem of the sheep rancher is to keep up the size of his sheep. From pretty general observation it appears that the dark faces are favorites in the ranches. A man starts in, say with Shropshire rams. He figures that the breed are credited with being hardy, busy rustlers, have dense, impervious fleeces, nice marbled meat, and are ready for the block any time. He may have seen some fine show specimens, as the Shrops are popular showmen. After a time he probably thinks that his bunches of two or three thousand are not all up to the mark for size, and the buyers prefer to buy by the pound in larger quantities.

Then he starts in mixing them up with a dash of Oxford for increased size, and gets a nondescript, unbalanced lot of ewes, from getting into his stock too many different strains of blood. It would be better for him to start with whichever he deems best and stick to it consistently. His seeing show sheep is good on one hand, but probably has led him to expect too much under his conditions. He should not look for inordinate size in individuals with the numbers he runs together.

The fact remains that to approximate to that standard he must work through the rams; and whether his rams are grown east or west they must have the right kind of conditions to conserve their good mutton qualities. The best stock rams will not be range rams grown in the big bunches. Even with the best efforts of intensive culture he will have to meet to some degree adverse conditions in the west which are permanently operative, and it is to be presumed that frequent reversions to the very best flocks of the east will have to be made for new infusions of blood from animals representing fast-growing qualities and retundity of form. It is not so much a question of the superior sheep care of the Ontario shepherd as it is one of general physical conditions of soil, moisture, vegetation and general husbandry.

At present the great bulk of the ram stock is drawn from the east, and on this account there arises the question of how importations are best made. Both lambs and yearlings are brought in, and both lose their bloom to some extent. As between using lambs and yearlings, it is generally thought that the use of the latter is preferable in any condition or place. There is more to be said still in favor of the use of shearlings in the west. Where lambs are used it is generally thought wise to limit them, to probably thirty ewes. In larger flocks, in addition to want of vigor from being young, is added the weakening effect of unlimited copulation, and the lamb runs himself down. Besides, he is meeting a new climate, and is rustling for his living, and we thus have three circumstances against his success as a vigorous lamb getter. Among those who think that blood is everything and conditions nothing, these objections will not



HOLSTEIN COW, AALTJE POSCH 4th.
Sweetstakes Dairy cow at the Ontario Provincial Fat Stock and Dairy Show, 1899.
OWNED BY RETTIE BROS., NORWICH, ONT.

weigh. The shearling, on the other hand, is matured, and has only to meet the change of system and of climate. Even with shearlings the change tells quite perceptibly. It would seem advisable to avoid the shock of acclimatization in either case. With this view, if early, well-matured Ontario lambs, coming in February or March, could be weaned in July, and get feeding well for themselves for a couple of months, and could be taken into the west in September, so as to get a couple of months of fine weather there in the fall, and, besides, be kept from serving ewes until the next year, they would no doubt make good, vigorous sires. The financial difference would be the interest on the ram bunch for one year, and possible slight losses during the first winter.
J. McCaig,
Lethbridge, Alta.

Index of Farmer's Advocate Articles for 1899.

In accordance with our usual custom, we have prepared a complete index of the articles and engravings published in these columns during the past year, and issue it in connection with the present number. So many of our readers now preserve their papers by binding or otherwise, for future reference, that a good index becomes of very great value, and is really indispensable. All departments of farm work being regularly dealt with by experts, every number becomes a veritable mine of wealth in the way of practical information. In our "Questions and Answers Department" many hundreds of perplexing practical problems are dealt with from time to time, and very frequently the reader will be confronted with the same difficulty upon which some other reader has received help, and by turning up the index the time and trouble of writing us on the subject will be saved. We have heretofore always published the index in connection with the Dec. 20th (Christmas) number, but the amount of space required for articles and engravings in our last issue rendered its publication until the present time practically impossible. We need hardly, therefore, urge upon our readers the desirability of carefully preserving this index.

Wintering Idle Farm Horses.

WHEAT STRAW AND BOILED FEED.

To the Editor FARMER'S ADVOCATE:

I don't know that I can tell your readers anything out of the common in respect to wintering idle horses. I would recommend turning horses out in the day time after the fall work is done, and bring them in every evening; as the weather gets colder and winter sets in I would bring them in earlier. Horses should not be left standing round buildings, but be taken in out of the cold as soon as ever they have finished feeding outside and come up to the stable themselves. I only water my work horses, which are running out once a day, and always give them free access to salt in a trough outside, which is most important, especially in winter when horses are getting wheat straw, which forms the bulk of the feed for horses in this district at any rate. I feed my idle horse about a half gallon of oats and a half gallon of bran twice a day. As the weather gets colder I boil barley in a galvanized steel boiler which holds 50 gallons. One boiler full every other day, after being mixed with bran, is sufficient for two evenings for fourteen horses. Bran should always be mixed while the barley is hot, which scalds the bran and makes it much better feed when the bulk of the ration is wheat straw. The galvanized, flat-bottomed feed furnaces are a great improvement on the old iron feed boilers, especially where wood is scarce, as they only require about half the fuel. A good many farmers would not take the trouble to boil feed for idle horses, but let them feed, say, half their horses on boiled feed once a day and the other half on dry oats, and see which will be in the best condition by spring, and take the least feed to put them into condition for spring work. I'll guarantee they will have healthier and better-conditioned horses by boiling feed, and will be repaid for the extra trouble many times over. I never have any trouble in keeping horses in condition on wheat straw and free from every kind of sickness. On rough days during winter I always let horses come in the stable again after watering in the morning, and give them grain at noon. It is also most important that the stables be properly ventilated. This is a thing which is very much neglected in this country; in fact, it's surprising there is not more sickness among horses, when they are fastened up every night in stables with low ceilings, without any ventilation of any kind.

A good many farmers prefer cut oat sheaves for winter feed, but every farmer does not possess a windmill, or the necessary power for cutting sheaves for a lot of horses. I consider horses can be wintered much cheaper and quite as satisfactorily on wheat straw, with oats, bran and boiled feed every evening. By turning idle horses out during the day they get exercise, and if a person has a piece of rough prairie anywhere handy they always get some grass, which is a great help to them in cases where all the land is under cultivation, like on the majority of farms round here. Every farmer ought to have a good big straw stack handy, where horses could go and feed on the sheltered side of the stack on a cold day. So far as my experience goes I find Western horses much easier wintered than eastern horses; they appear to enjoy feeding on the prairie, and paw snow much better than eastern horses. I would buy our own Western or ranch horses in preference to an eastern horse every time. I have only two or three eastern horses, and have generally to bring them in earlier, especially on a cold day, than the Western horses, as they appear to feel the cold more. The trouble with the Western horse is to get them heavy enough for our heavy land. I prefer horses weighing about thirty hundred per team. At present I have three or four Western teams which weigh from 3,000 to 3,350 pounds.

On toward the middle of March I always decrease boiled feed and increase the allowance of oats, according to the condition of each team, to harden them and put them into condition for spring work. Horses should be given some work before seeding to get their shoulders hardened up before going into heavy work, and care taken, especially the first few days of seeding, to keep their shoulders from getting scalded; salt and water can be used to advantage to harden the shoulders. Round this district, where we stick to wheat growing and practically have all our land, with the exception of a small pasture, under cultivation, it is impossible to breed our own horses. Rearing good horses in this country must be a very profitable business to any person not quite so favorably situated as we are in the heavy land round Indian Head district.

There are imported some hundreds of horses from Eastern Canada and United States every spring into Indian Head, and this demand for horses is likely to last for years. It seems a pity we could not breed horses in the west to supply the demand, instead of sending our money to eastern Canada and United States, and paying the C. P. R. a heavy freight on them. Good, fair eastern work horses, weighing, say thirty hundred per pair, could not be bought in Indian Head last spring under \$300 per team, and were as high as \$350 per team. With all the thousands of acres of land lying idle in this country, surely we should be able to breed our own horses.

ALFRED E. WILSON.

J. A. CRANDELL, Cloverdale, B. C., says:—"I must say, as a farmer's paper it is unequalled by anything I have ever seen."

The Hessian Fly in Eastern Manitoba.

In our issue of December 5th, several letters regarding the damage done by the Hessian Fly were published. Since then reports are to hand from several districts, among others the following:

To the Editor FARMER'S ADVOCATE:

The damage has not been very large in this district, probably from three to six per cent. The damage to my crop would be about four per cent. There were several places through my crop that I could not notice any perceptible damage from the fly. I did not notice any particular difference on old or new land, summer fallow or stubble, but I noticed one or two stubble fields that were plowed for wheat in the spring were effected to a greater extent than that which was plowed in the fall. I had all my wheat land fall-plowed, as I also have this fall. Noticed also that the higher places in my fields were affected worse. The only reason I can assign for this is that the fly must have visited these places in greater numbers than other portions of the fields. Wheat is the only grain that has been affected in this district. I have not seen or heard of any barley being affected.

The damage has been general. I have not heard of any wheat grown in this district but what was more or less affected. The only precautionary measure that has been taken, to my knowledge, is fall plowing. As for burning the stubble, it was almost impossible on account of so much rain and moisture. On the 7th of November I found a few of the fly eggs, or maggots, in the stubble.

THOMAS SCOTT.

Woodlands Municipality.

To the Editor FARMER'S ADVOCATE:

The loss from Hessian Fly was fully five bushels per acre of my crop of one hundred and fifty acres. Old land, spring plowing and summer-fallow suffered most. New land seemed to escape entirely. Light, high, loose land, suffered worst about here, from one-third to one-half of the yield on such land; late sowing, also, was badly affected. On new land and low places, the straw was stronger and stiffer, and further advanced. The damage has been general on the higher lands where soil is loose and mellow. To prevent future trouble from this cause, we have generally followed the advice of Dr. Fletcher, given in the September 20th issue of the ADVOCATE, plowing all the stubble under, and, assisted by the open fall, nearly all the land to be cropped next year has been plowed this fall.

Franklin Municipality.

JAMES HUNTER.

Winter Dairying in Alberta.

There can be no good reason why winter dairying should not be followed up extensively in Northern Alberta. The nature of the soil and climate is most favorable for growing an abundance of feed for the stock during the winter, and there is also sufficient timber to enable the settlers to build comfortable stables. The available markets and prices obtainable for dairy produce will fully justify some effort in that direction.

The following figures will give an idea of what has been done in two districts alone in the way of winter creamery work, showing the output of butter and prices obtained at the Government creameries:

Nov.-May.	INNISFAIL.		Price per lb.
	No. of Patrons.	Lbs. butter m'fd.	
1897-8.....	73	12,144	23.72c.
1898-9.....	107	22,664	23.10c.
Increase %.....	46	87	
Nov.-May.	RED DEER.		Price per lb.
	No. of Patrons.	Lbs. butter m'fd.	
1897-8.....	54	11,104	22.8 c.
1898-9.....	68	19,782	23.08c.
Increase %.....	26	78	

The Dominion Department of Agriculture increased the monthly advance payments, to the creamery patrons, from 10c. to 15c. per pound of butter manufactured during the winter months. The balance of the net price, realized at the creameries, is paid to the patrons, after deducting the manufacturing charge at the close of each season's business. During the present winter four Government creameries are in operation in Northern Alberta, namely, those located at Innisfail, Red Deer, Tindastoll, and Wetaskiwin. In addition to these a private creamery at Bowden is being operated throughout the year. Under the present arrangements the Department is keeping open cream-receiving stations at various points on the railway line, for the accommodation of the people who wish to patronize them, and the cream is being received and shipped by train every week to the nearest creamery in operation.

In that way the farmers living at distant points may enjoy the same facilities for patronizing the creameries as those living in the immediate vicinity of them. It is anticipated that this system will have a stimulating effect on the winter dairying movement. During the past few years the average price obtained for winter-made butter at the creameries has been from three to four cents per pound higher than for the butter manufactured during the summer months. This fact should appeal to the live dairyman.

Dairying in its various branches can be followed up profitably, in Alberta especially, the whole year round. The farmer will have no difficulty in finding a ready and profitable market for all he can produce.

C. MARKER,

Alberta Dairy Superintendent.

Wheat from Peace River, 700 Miles North of Edmonton.

To the Editor FARMER'S ADVOCATE:

When I came out from Peace River this last fall I brought with me some same samples of grain, which I showed here at the Bulletin office, Edmonton. I am sending you some samples per mail, which I trust may arrive in not too bad shape. The samples were gathered on August 26th, and I selected ears not over ripe, so that they would not shell more than need be. I have brought them nearly 700 miles, and now they have about 1,100 more to go to reach you. I also send you photographs of a couple of scenes on my farm at Vermillion, and also of the samples I brought out, taken before I started. I was standing beside them to show the relative height. I am 5 foot 9½ inches. There are samples of wheat, barley and oats.

The season in the Peace River was a favorable one for growth, but the grain was slow in ripening. I left there the 5th of September. The weather was fine from the 1st of September, and the grain would be all cut, I think, by the 12th. I have not had a chance to hear from there since, as the Government, I am sorry to say, think our country is not worth, nor its people deserving, a mail accommodation. Twenty years of pioneer work in the very heart of the "wilds," and proving the exceeding adaptability of the far-away region to the growth and prosperity of almost everything that is grown or raised in the Northwest, counts for little or nothing with those who make politics a trade.

I do not wish to complain, but years ago the Hudson's Bay Company gave us a very good mail service; latterly, the country is flooded with Klondyke mail matter, and the consequence is no one will undertake so much, and we are practically destitute of anything that could be possibly construed into a mail service. There requests and petitions of the inhabitants are of no earthly avail.

Peace River, Athabasca. E. J. LAWRENCE.

[The samples arrived in capital shape. The wheat, a red-bearded variety, resembles very closely the red-bearded wheat so common among Red Fyfe. The berries are large, full, plump, well-matured and a good color, some few kernels, however, showing slight marks of frost.—ED. F. A.]

The Wintering of Idle Farm Horses.

FEED FOUR TIMES A DAY.

This is a question with regard to which there is a great diversity of opinion, and I don't know that I can do better than to outline the plan which I follow on my own farm, and I know a great many successful horsemen who winter their horses much in the same fashion.

The first consideration is to see that the feed is somewhat reduced when the horse is taken off heavy work. The food should also be of a more loosening nature, that is, more bran and boiled grain should be fed; roots would also be beneficial, though I do not feed any myself.

I invariably feed four times a day both summer and winter, always watering before feeding in summer, but I find this will not work in winter, as the horses do not need so much water, and will not drink so often. I therefore give them their grain first thing in the morning, followed by hay; they are then watered about nine o'clock a. m.; they remain in the stable till noon, when they get another small feed of grain, and are turned out in the pasture immediately after noon, where they should have a large straw pile to run around till about four o'clock, when they are again put in the stable, watered, and given a sheaf of green oats each, followed by a feed of boiled barley or small wheat and bran, mixed with a little salt, at seven or eight o'clock.

I think a great many farmers make the mistake of feeding far too much hay to idle horses. There are some horses that will not eat enough to do them any harm, but the great majority will eat far more than is good for them if they can get it. It will be seen that my horses only get hay once a day, and that is nearly always cleaned up within two hours after it is fed. I would give another feed of hay in the evening if I was not feeding sheaf oats.

My driver, and the team I keep for hauling wood and other heavy work, do not get any sheaf oats, but get hay and oats instead. I consider green sheaf oats too soft for working horses.

Weanlings and colts are fed much the same as above, except that their grain should be crushed; indeed I think it pays to crush oats for nearly all horses; barley should never be fed to horses except it is well boiled; some object to feed it even then, but I have never found any evil results, and my horses get it six times a week, except when they are on the grass.

There are many farmers with a number of horses who seem to be afraid to let them out in the winter for fear they might get hurt running through snow banks or wire fences, but I think if they are turned out the first day they are idle after coming off the plow, and kept out every day that is fit for them to be out afterwards, the danger of their getting hurt would not be half so great as the danger of leaving them in the stable, and they will be in far better condition to go to work in the spring than they could possibly be if tied in the stable all winter.

As to hardening horses for spring work, I don't do anything at it till the actual work begins. Just as soon as the land will work I try to get all the horses started, and work them very light for three or four days. By this time the land will be in pretty good shape to work, and the horses will be in pretty good condition to work it if they have been well handled. It is necessary at this time to increase their feed somewhat, and here is where a great many err. They seem to think when the horse goes to work he needs more feed, and give it to him accordingly. The horse eats the first few feeds all right, but about the third day he comes in tired, takes a few bites of oats, then backs up in his stall and stands there till it is time to hitch up again. He will, perhaps, keep this up for three or four days, and by this time he is beginning to loose flesh, and will likely keep on failing till seeding is finished and he gets a rest. A much better plan, I think, is to feed the horse rather light the first three or four days, and then gradually increase his rations and his work, until at the end of a week you have him feeding well, feeling well, and fit to go through the remainder of the season in good shape.

I like to clip horses that have been idle all winter if they are very long in the hair, before starting to work in the spring; they seem to work much cooler and nicer than if the long hair is left on till it is scraped off with the currycomb. It also saves a vast amount of scraping and cleaning, which is quite a consideration where a man is working four horses, and I don't think there is any danger if they are blanketed for a time after clipping. There is no necessity for clipping horses that have been working all winter, nor do I like clipping in the fall; I would much prefer singeing.

Portage la Prairie.

J. W.

The Outlook for Live Stock.

The unusually high average of prices paid for cattle at the auction sale of Shorthorns from the herd of Mr. W. D. Flatt, of Hamilton, Ont., last month, as reported in another column of this issue, where over \$400 a head was realized for nearly sixty animals, emphasizes the fact which statistics and the experience of feeders and dealers, both in the United States and Canada, prove to be true, namely, that there is an undoubted shortage of cattle in both countries, which goes far in accounting for the sharp advance in prices for beef animals in the leading markets in the last year or two, as well as for breeding stock. The reports of the Bureau of Agriculture of the United States show that the extent of the falling off in the number of cattle in that country in the last five years is no less than seven million head, which well accounts for the large drafts which have been made in the last two years of young cattle for feeding purposes as well as of breeding stock from Canadian herds by American stockmen and feeders. This drain upon our stock must naturally have had the effect of largely diminishing the supply of cattle in Canada; and since a large proportion of our farmers are engaged in dairying, in which the dairy breeds and their grade are largely used, it is reasonable to presume that the number of young cattle suitable to make good beef animals being raised is by no means large, and it is certain that cattle suitable to feed for the supply of the export trade and the best markets are decidedly scarce and hard to find. The general prosperity experienced in business circles and the consequent improved financial condition of the average of the people on this continent in the last few years, and the prospect of a continuation of this prosperity, has doubtless tended to greatly improve the home markets, since more of the people can afford to buy meat. In view of these circumstances, and the added one that the average farmer is seeking to improve his stock, the probability amounts almost to a certainty that prices for beef cattle will rule high for some years to come, and that the demand for breeding stock will be actively sustained and the values of these relatively high.

The markets for dairy produce during the past year have been on the whole very satisfactory, and the prospect is decidedly encouraging, while the demand for dairy cattle of most of the breeds has been good and at better prices generally than for many years previously. If dairy cattle paid their way, as we know they did during the years of depression, when prices were low, they will certainly make money for their owners in these better times. The cow whose annual product brings more money than she is worth on the market, and whose skim milk raises a calf and a pig or two each year, is pretty safe property to have.

Sheep for breeding purposes have continued in good demand, and Canadian breeders have reaped very satisfactory returns from their flocks, while the recent rapid rise in the price of wool renders the outlook for this industry exceedingly bright. Horses of the better class have found a ready mar-

ket at good prices, and the requirements of the war are likely to have a considerable influence in stiffening values. While the market for pork has not been as satisfactory during the past year as could be wished, both the prices and the prospects are improving, and the temper recently shown by feeders will doubtless have the effect of leading dealers to see that unless fair prices are paid the supply will soon be restricted; meanwhile, farmers, and especially those engaged in dairying, cannot afford to drop the pig out of their operations, since by his aid a large amount of cheap food, which would otherwise be wasted, is profitably utilized. There is this to be truly said of the pork industry, that though prices for the product fluctuate more than is desirable, yet they average well, taking the years as they come, and if care be observed in preparing hogs for market at the most favorable seasons, the returns will be found fairly remunerative.

A review of the business of the past year and a forecast of the future from the standpoint of the farmer, if carefully made, can lead to but the one conclusion, that live stock is pre-eminently the principal factor in the agricultural prosperity now being experienced. Prices for grain in any line have not appreciably advanced, even a war of considerable gravity, and likely to continue for a considerable time, having failed to cause even a ripple on the market for wheat, while coarse grains have found their best paying market through being fed to cattle and other stock on the farm. This fact is well established in so far at least as the Province of Ontario is concerned, by the recently issued report of the Bureau of Industries for 1898, which shows that while the value of the crops of the field in that Province was greater by three and one-half millions in 1898 than in 1897, the value of the live stock killed and sold in 1898 was greater by four and three-quarter millions than it was the previous year. Again, while the total value of farm property in Ontario increased by eighteen millions in a year, the value of live stock alone shows an increase of ten millions in the same time. The outlook for live stock in all lines is decidedly encouraging, but a review of the situation will fail to teach its best lesson if the fact is not noted that there is still a great gulf between the top and bottom prices in the markets for cattle especially, and also for several other lines of stock, and that the only way to get into the procession that leads to the best prices is to improve the quality of the stock to be fed by good breeding and good feeding combined. Good blood is a factor that goes a long way in determining the difference between low prices and high prices, even in the meat market, and is an essential to success in breeding pedigree stock, and generous feeding is twin brother to good blood in working out a favorable balance sheet for the feeder.

Our Scottish Letter.
THE SMITHFIELD SHOW.

The great fat stock show season is over, and many useful lessons may be learned from the results. Some years ago, when Her Majesty the Queen's herd took leading prizes, certain organs of the press and some ill-advised correspondents took up a position of antagonistic criticism, with the result that the Queen's managers ceased to purchase cattle likely to prove winners, and confined themselves to the exhibition of animals bred on the Royal farms. To this no possible exception could be taken, and Her Majesty has been a more successful exhibitor than ever. At the Smithfield Club show just closed she has won the championships in the Devon and in the Hereford sections, and the supreme championship over all breeds with her champion Hereford steer, and she has also won the championship in the carcass competition with an Aberdeen-Angus steer—all three being bred by herself. The Herefords and the Devons are kept at the Royal Flemish farm, Windsor, and the Black Polled cattle at the farm of Abergeldie Mains, in Aberdeenshire. The Flemish farm, as well as the Prince Consort's show farm at Windsor, where the Shorthorn herd is kept, are under the control of Mr. William Tait, a Scotchman, who succeeded his father, and an extremely able man, as well as a great favorite with his royal mistress, as he well deserves to be. Nothing could have been more ill-advised than the attacks made on the Queen's managers a few years ago for showing stock which they purchased and

brought out. The royal herds were good customers to tenant farmers, and the only effect of these unmannerly attacks has been to deprive these farmers of a good market, and to demonstrate more conclusively than ever the ability of those entrusted with the management of Her Majesty's private affairs.

The Royal champion Hereford of this year is admittedly one of the finest animals of the breed ever exhibited. He weighed 1,936 lbs. at 2 years 11 months 3 weeks old, and was brought out in perfect form, finished level and true, and carrying his flesh without trouble. It is, however, an indication of the views entertained by London butchers of the flesh of such overfed animals, that none of them bought him. He was secured by a Welsh butcher all the way from Cardiganshire. Her Majesty's champion Devon was a heifer, beautifully finished, but of course much less in weight than the Hereford. At 2 years 8 months 1 week she scaled 1,316 lbs., and was a picture. With the possible exception of Aberdeen-Angus cattle, no breed gives more weight and quality at an early age than the Devon, and they are in high favor with London butchers.

The Shorthorn championship went to a famous north country breeder, the veteran Mr. James Bruce, of Inverquhomery, Aberdeenshire. His representative was a lengthy white steer, aged 2 years 11 months 3 weeks and 5 days, when his weight was 2,018 lbs., certainly a remarkable weight, and one which explains the success of the Shorthorn as a great crossing sire. This will in all probability be Mr. Bruce's last appearance in the showing. He is now over 80 years of age, and last summer sold off his herd. His career has been pre-eminently honorable and worthy of universal imitation. He early saw the advantage of exhibiting at fat stock in preference to summer breeding shows, and for many years Inverquhomery steers were seldom absent from Smithfield. When they

butcher who bought him paid within a fraction of 7d. per lb. for him live weight. London butchers do not fight shy of Galloways and Highlanders; they buy the lot and give nobody else a look in.

The Highland champion was a grand bullock named Perthshire's Hope, bred at Bochart, and owned by Sir William Ogilvie-Dalgleish, Bart. He was catalogued as 3½ years old, and weighed 1,940 lbs. At the Edinburgh Show in the previous week he was placed second, but nobody except the judges there thought that a right decision. As a specimen of the Highland breed few can beat this animal, and he will likely be sold at a big price per pound to the London swells.

The English pure breeds were fairly well represented, Sussex cattle being a kind of parallel to the Galloway, and the Welsh runts to the Highlanders. These are in favor with London butchers. Red Polled are doing no more than holding their own.

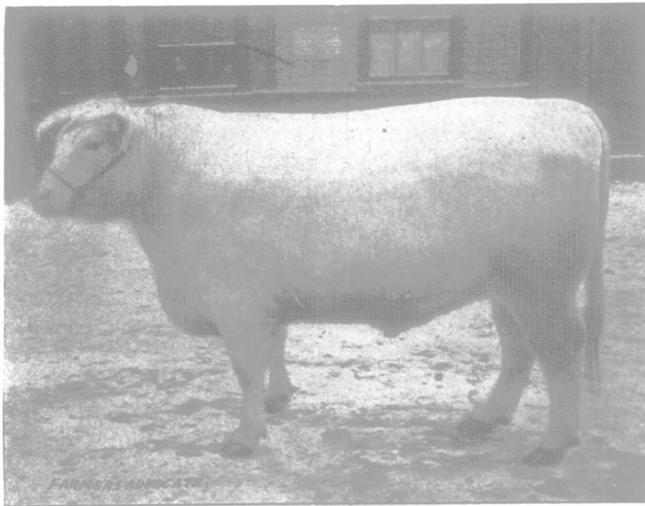
Cross-bred cattle are a most interesting section at all fat stock shows, and this year some novel crosses have been presented. The pick of the section at London were bred in Ross-shire by Mr. J. Ross, Meikle Tarrel, Fearn, and Mr. J. Douglas Fletcher, of Rosehaugh. The championship of the section, as well as the reserve championship of the whole show, went to a Norfolk feeder, Mr. W. C. Learner, for a heifer named Let 'em All Come, bred by Mr. Ross and got by his great Shorthorn bull, Ringleader, out of one of his best breeding cross polled cows. This heifer is a model, and at 2 years 9 months 1 week she weighed 1,850 lbs. The reserve in the section was Mr. Fletcher's champion steer at Inverness and Edinburgh, and, as it turned out, the reserve to the Queen's Hereford as the best steer at London. He is named Sunray, and but for standing a little bit high on the leg he is a perfect bullock. His breeding is A.-A. sire and Shorthorn dam, and his weight at 2 years 7 months 1 week 3 days, 2,228 lbs., by a long way, age and weight considered, the best example of early maturity seen out this year. Mr. Fletcher, like the Queen, only shows what he breeds, and he is not afraid to try experiments in crossing. He stood reserve champion in the carcass competition with a young bullock 22 months old, got by an A.-A. bull, out of a Hereford cow, and he showed a beautiful pair of the same kind at Inverness. He also showed a capital cross heifer at Inverness, got by a Shorthorn bull, out of a Sussex cow. She weighed 1,470 lbs. at 23 months 7 days, and is a capital handler, very firm and level in flesh, but rather long in the legs.

Amongst sheep Mr. Fletcher also experimented, and was well placed at London in the carcass competition with a South-down-Cheviot cross. His aim is to produce what the public want, and all his experiments are at present directed to the development of early maturity, along with plenty lean meat. Those who understand the question will readily admit that the laird of Rosehaugh is doing a great public benefit by following out such experiments.

The sheep department at all the shows this winter has been characterized by unusual success for the Blackface mountain breed. At Edinburgh a pen of three wether hogs, bred and exhibited by Mr. John McDowall, of Girdstingwood, Kirkcudbright, secured the championship of the whole show. They went to London, and again secured the championship over all the long-wool breeds, being, however, beaten in the final by the Suffolks

and the Southdowns. The ages of this pen are 19½ months, and their joint weight 675 lbs. In the carcass competition at London a Blackface wether hog, owned by Mr. Alexander Guild, Greenhead, Pencaitland, was champion over all breeds and crosses, beating the Southdowns, Suffolks, Cheviots, Hampshires, and all other sorts. This was a beautiful carcass of mutton, and naturally the breeders of Scottish mountain sheep feel uplifted. Everybody in the north knew theirs was the choicest mutton, but it required the carcass competition to demonstrate the fact to the London butchers and the London public. It has been done now, and done well.

Considerable interest has been manifested in the different results from the two great shows of last summer, the Royal at Maidstone and the Highland at Edinburgh. In the former case there has been made a loss of £6,000, and in the latter a profit of £1,000. It was pretty obvious to visitors to both shows that Edinburgh would issue in a profit and Maidstone in a loss, but possibly no one imagined that the figures in either case would be so high. Both were purely agricultural shows, and local circumstances alone contributed to the different results. At Maidstone the Royal was away in a corner of England, sparsely populated, with no large town nearer than London, and an agricultural population all round interested in the one industry of hop-growing. Hence, it was impossible that a show of the dimensions of the Royal could, under such circumstances, pay. Londoners, it has over and over again been proved, do not attend an agricultural show unless it be held right in their midst. Hence the immense concourse of people who throng the Smithfield Club Show in the Royal Agricultural Hall, Islington. On Tuesday last, the second day of the present show, 14,000 passed the turnstiles, and



SHORTHORN STEER, FREE TRADE.

Winner of first prize and championship over all beef breeds at Guelph and Ontario Provincial Fat Stock Shows, 1899.

BRED AND EXHIBITED BY MR. HARRY SMITH, HAY, ONT.

appeared they were usually in the prize list. Mr. Bruce's cattle are not absolutely of the Scottish type. They are longer, and carry themselves with more style and gaiety. Their owner had an ideal of his own, and earnestly strove to attain it. He has had his reward, and victory was never more popular than when Mr. Bruce won.

Aberdeen-Angus cattle are rather in the background this year, but this is not to be regretted. The cause is the great demand for bulls and heifers for breeding purposes. The breed championship went to the Earl of Strathmore and Kinghorn for his heifer, Victoria of Glamis, which at 2 years 11 months 6 days scaled 1,850 lbs. She is a good straight heifer, but not equal in merit to the former Glamis champions, Minx of Glamis and Ju-Ju of Glamis, both of which took the highest honors at this show. It is noteworthy that from 1892-99, inclusive, the supreme honors at the Smithfield Club have been taken four times by A.-A. heifers, twice by Galloway Shorthorn crosses, once by a Shorthorn, and once by a Hereford. All the breed champions this year up to this point were bred by their exhibitors, but in the Galloway, Highlander, and cross-bred sections it was otherwise.

The Galloway champion was the most magnificent bullock of the breed ever seen in a showyard. He is named Substance, was bred by Messrs. McCormick & Mathison, Mindork, Newton-Stewart, and trained by Messrs. Thomas Biggar & Sons, Chapelton, Dalbeattie. He was breed champion at Edinburgh as well as at London, and for back, ribs, and especially hind quarters, his equal has rarely, if ever, been seen. At 2 years 10½ months he weighed 1,964 lbs., and it will be surprising if he does not kill better than any other of the breed champions at this show. For quality of flesh we will back him against the field, and the London

as many more would go through on Wednesday and Thursday. But the Londoner will not take train and go down to a country town to attend an agricultural show. Hence, the Royal Show at Kilburn in 1879, at Windsor in 1880, and at Maidstone in 1880, have been financially unsuccessful. Big provincial towns like Manchester, Liverpool, Leeds, Leicester, Nottingham, Darlington, and Newcastle always do best for the Royal.

With regard to the Highland Show at Edinburgh, there is no mystery at all. Four causes contributed to the result: A metropolitan site; an unusually attractive prize list, and consequently a high-class exhibition; the royal visit; and, finally, charming weather for the four days during which the event lasted. Had the last condition not been present nothing in the world could have prevented the show being the most disastrous ever held by the Society, the ground being nothing better than a morass, which in wet weather would have been impassable, especially when "poached" by live stock and heavy machinery traffic. Under ordinary and normal conditions shows like the Royal, the Highland, and Smithfield always prove fairly successful without the addition of any features alien to agriculture, but in the case of district shows, and those held under provincial direction, recourse is almost invariably had to side shows having very little in common with agriculture, in order to draw a gate. The chief attractions of that kind are military tournaments of one kind or other, tugs-of-war, jumping competitions, and band competitions, which last are very popular in mining and manufacturing districts, each colliery or public work having its own band, and being interested in its success.

"SCOTLAND YET.

The Ontario Provincial Fat Stock and Dairy Show.

CATTLE.

The cattle department of the show this year, while not so full in numbers as in some former years, included some of the very best specimens in the beef classes ever brought out since the inception of these shows. Indeed, it may safely be said that the champions in both the beef and dairy classes this year were never equalled at any former show of the series, which is an indication of progress along practical lines which must be exceedingly gratifying to all concerned in promoting this class of educational exhibitions. The judges in all the beef classes were James Smith, Hamilton, and John T. Gibson, Denfield.

SHORTHORNS

were the first on the prize list, and the competition brought out a number of exceedingly meritorious entries, the chief of which was the white two-year-old steer, Free Trade, bred and exhibited by Harry Smith, of Hay, which won first honors in the section for steers over two and under three years. He is a son of the well-known stock bull, Abbottsford, which has for several years been in service in Mr. Smith's herd, and was at the head of the first-prize group of a bull and four of his progeny at the Toronto Industrial Exhibition, 1890; this beautiful steer being one of the offspring of Abbottsford included in that contingent. Free Trade is the most complete model of an export steer and of a butcher's beast that has been seen at a Canadian fat stock show, being smoothly turned and thickly covered with high-class flesh all over, a singularly symmetrical form, and devoid of paunchiness or any of the indications of an excess of offal. His weight was 1,800 pounds at two years and ten months, yet he was so smooth and compact that few would have estimated him at that weight, but he was a splendid example of the ideal type which gives the greatest weight in the smallest superficies, and his sale at 11 cents per pound live weight for Christmas beef to Mr. Slattery, of Ottawa, ends the brief but brilliant career of a steer, which netted his late owner \$700, including his price and his prizes in his short life, having won first honors in his class in every contest since he was a calf, and closing his career by capturing the grand championship as best animal of any age or breed at the Provincial Show of 1899.

The strongest number in the female section of this class was the four-year-old cow, Rosina 2nd, shown by Capt. T. E. Robson, Ilderton, a well-fitted, smooth and firm-fleshed animal, one of the best seen out in recent years. The second prize went to John Fried & Sons, Roseville, for Roan Lilly, a three-year-old heifer of great width and substance, a wonderful fore end and heart-girth, but showing a tendency to paunchiness, which discounted her chances for first place.

In heifers under three years a popular winner was found in Queen Elizabeth, a handsome and select red heifer, shown by F. Martindale, York, with strong, straight and well-covered back, and well-filled in all her parts. The sweepstakes for best single animal went by common consent to Mr. Starcher's Free Trade, and that for the best two animals in the class to Capt. Redson's entry, though not without demerit, as, in the opinion of many onlookers, Mr. Smith's Free Trade and his white yearling heifer better filled the bill more satisfactorily from a breeder's point of view. If there was a mistake made in the placing of awards in the

cattle department it was in this section, and we are inclined to the opinion that there was.

HEREFORDS AND ABERDEEN-ANGUS

were grouped together. There were no entries of the former, but the latter were well represented in numbers, and had an especially strong candidate for the championship of the whole show in the two-year-old steer, Robin, shown by Walter Hall, of Washington, Ont., winning first prize and the sweepstakes in his class, and being easily the reserve number for the grand championship. He was one of the very best steers ever brought out to these shows, being smooth and well-fleshed, firm in handling, thickly covered on his wide, strong loins, and beefed from head to hocks. It will be not at all surprising if he kills out a more profitable carcass than even the champion of the show, though he was not quite so evenly covered with flesh on all his parts.

Mr. James Bowman, Guelph, showed a beautiful two-year-old heifer in Elm Park Belle 2nd, which was given first place in that section, and the same exhibitor brought out a capital yearling heifer, which captured first money, while his grand cow, Black Beauty, in her four-year-old form, was a clear first in the section for females over three years, in which Mr. Bowman won all three prizes offered; Mr. Hall winning second with good specimens in the two former sections.

GALLOWAYS AND DEVONS

were shown in the same class. The latter had but few entries, and no very strong numbers individually; Mr. W. J. Rudd, Eden Mills, being the only exhibitor. Messrs. D. McCrae, Guelph; A. M. & R. Shaw, Brantford, and T. Lloyd-Jones & Son, Burford, showed a goodly number of Galloways, which were in excellent condition and made a very interesting display in their glossy, curly coats of hair, and smooth and firmly-fleshed forms. Messrs. Shaw had the first-prize winner in each of the four



SHROPSHIRE SHEARLING WETHER.

Winner of 1st in his section and sweepstakes of his breed at the Ontario Provincial Fat Stock and Dairy Show, 1899.

HE WAS Sired BY BONNIE BELVOIR, AND BRED AND EXHIBITED BY RICHARD GIBSON, DELAWARE, ONT.

sections of the class, as well as the sweepstakes winner in single animals and in pairs, and Mr. McCrae had the second-prize animal in each section.

GRADES AND CROSSES

made an excellent showing; James Leask, Greenbank, winning in the section for two-year-old steers with a well-fleshed roan Shorthorn grade; second place being given to a capital Galloway grade, smooth and well-fleshed, shown by T. Lloyd-Jones & Son, Burford. In yearling steers first was given to Fried & Sons, Roseville, and second to Leask, a decision which was not generally endorsed by onlookers, though both were excellent Shorthorn grades, well fed and smoothly formed. Fried & Son had the first-prize number in the section for cow or heifer over three years, and for two-year-old heifer, but the best thing in the class was the yearling heifer, Flo, by Moneyfuffel Lad, shown by Jas. Leask. She was first in the section, as she was in the grade class at the Toronto Industrial Exhibition, and is an uncommonly good one, being straight in her lines, smooth and level, and evenly covered in all parts with first-class flesh. Next to the champion and the reserve steer, she was the strongest card by common consent in the whole show. Mr. Leask won the sweepstakes for best two animals in this class with this heifer and her mate, the second-prize yearling steer, and Fried & Son won the first for grade steer sired by a pure-bred Shorthorn bull.

THE DAIRY TEST.

The awards in the dairy classes were based entirely upon performance at the pail and by the Babcock test in a two days trial, the test being conducted by Mr. Stonehouse, dairy instructor at the Guelph Dairy School, assisted by Mr. Squirell, of the same school. The classes in this

department were more than usually interesting, nearly all of the dairy breeds being represented by high-class cows, while the general purpose cow showed up exceedingly well in the excellent entries of Shorthorns, in which class A. W. Smith, Maple Lodge, had two cows which measured well up to the type of the milking Shorthorn, both sired by Jocelyn 17428, and of Mr. Smith's Blanche family, and one, Rene 27388, giving 81.5 pounds milk in the two days, winning the first money. F. Martindale, York, had the second-prize cow in Gypsy Maid, by Roan Prince 20524, giving 79.5 pounds milk, and H. J. Davis, Woodstock, the third in Mistletoe 5th, by Baron Lenton 1222. She gave 94.5 pounds milk in the two-days trial. There was but one Jersey cow entered, but she was a good one. She was Primrose Park's Prude 80475, owned by W. J. Craig, London—a seven-year-old cow, six weeks from calving—and she made an extraordinary record for richness. She gave 65.9 pounds milk in 48 hours, testing 6.9 per cent. butter-fat the first day and 7 per cent. the second day, a remarkable showyard record, nearly 2½ per cent. above the highest made by any other cow on the grounds, yet a record one could well believe her capable of exceeding by a good deal under more favorable circumstances, as she is a nervous cow, and being taken away from her companions at home and placed in a strange building and subject to all the disturbances of a public exhibition, and supplied with an inferior class of hay. In conformation she is a model dairy cow, with capacity for working up a large quantity of food, yet beautiful in her head and horn and eye, and in all her make-up. Her owner asserts that she gave 38 pounds milk per day at home the week before the show, which, according to the butter-fat test made at the show, would give her very high rank as a producer.

Only three Ayrshires were in the test, but they were typical dairy cows, of excellent form, showing strong indications of constitution, and carrying large and well-balanced udders. The first, second and third prizes all went to N. Dymont, Clappison's; Briery Banks Cora being the first-prize winner.

The Holsteins were, as usual, in these trials largely in the majority, there being thirteen entries of these, and the sensation of this department of the show was the performance of the cow Aaltje Posch 4th, owned and exhibited by Rettie Bros., Norwich, Ont., breaking all former showyard records, giving, at nine years old and when five weeks in milk, in the two days of the test at London, 146 pounds 8 ounces of milk, the product of the first two milkings testing 4.5 per cent. of butter-fat, of the next three milkings 4.8 per cent., and of the last milking 4.3 per cent. Adding 20 per cent. to the butter-fat, the rule applied in the World's Fair test at Chicago, this is equivalent to 8.60 pounds of butter in the two days, or over 4½ pounds in one day. Aaltje Posch 4th is a large cow, weighing 1,600 pounds, and having large capacity for food and for milk production. She has excellent dairy form, and but for a somewhat heavy head might well be called a beautiful cow, while her disposition is quiet and placid, which enabled her to do even better work in public than she had ever done at home. She was bred by B. B. Lord & Son, St. Clairville, N. Y., her sire from imp. sire and dam, and her dam imported from Holland. She gave no special promise in her early years of making a phenomenal producer; indeed, at five years old she was purchased at a sale by her present owner at little more than the price of an ordinary dairy cow, and gave no higher than 50 pounds milk daily the first year in his hands, but by generous care and feeding she increased her yield to 64 pounds the second year, and reached 71½ pounds the next year. Last January, in an official test made under the supervision of Prof. Dean, of the Agricultural College, Guelph, she made, starting eight days after calving, 23 pounds 7 ounces of outter in seven days. This, together with her public performance at London, gives her rank as one of the very best cows on record, and when added to the many other great records made by Holstein cows, both at home and in public, gives the breed an enviable pre-eminence as milk and butter producers.

The first-prize Holstein cow, under 36 months, was Mercena 2nd 1841, bred by G. W. Clemons, sired by his champion bull, Count Mink Mercedes, and owned and exhibited by Rettie Bros. She is a handsome young cow of fine quality, and carrying a grand and properly-balanced udder. Her record of 50½ pounds milk in one day, 99.6 pounds in two days, and 3.53 pounds fat, at two years and five months, stamps her as a young cow of great merit.

In the section for grade cows over 36 months the first prize went to Rettie Bros. for a Holstein grade, T. H. Dent, Woodstock, was the winner in the section for cow under 36 months.

The sweepstake prize for three best cows of one breed, or all grades of one breed, went to Rettie Bros., and second to G. W. Clemons, St. George, for Holsteins. The sweepstakes for the two best heifers under 36 months, of one breed, or grades of one breed, was awarded to A. & G. Rice, Currie's Crossing, for Holsteins, and the second to H. K. Fairbairn for Shorthorns.

THE MILKING TRIAL AT LONDON, 1899.

Name of Cow and Owner's Address.		Total lbs. milk in 48 hours.	Lbs. fat.	Lbs. solids not fat.	No. of points for fat.	No. of points for S. N. F.	Points for days in milk.	Total points.
Holsteins over 36 months.								
1st.	Aaltje Posch 4th. Rettie Bros., Norwich	146.9	6.79	13.72	135.70	54.88	.6	191.1
2nd.	Woodland Isoco. Rettie Bros.	127.1	4.30	11.20	85.98	44.88	4.2	135.0
3rd.	Queen De Kol 2nd. G. W. Clemons, St. George.	109.4	3.32	9.21	66.40	36.84	10.0	113.2
4th.	Fanny F. Rettie Bros.	134.8	3.42	10.94	68.90	43.74	.5	112.5
5th.	Lady Mary 4th. W. H. Simmons, New Durham.	118.6	3.56	10.02	71.20	40.10	.0	111.2
6th.	Inka Josephine De Kol. G. W. Clemons.	87.7	2.60	7.52	52.90	30.10	7.5	90.5
7th.	Empress Josephine De Kol. G. W. Clemons.	74.6	2.48	6.73	49.56	26.91	6.8	83.3
Holsteins under 36 months.								
1st.	Mercena 2nd. Rettie Bros., Norwich	99.6	3.53	8.77	70.54	35.09	.8	106.4
2nd.	Jemima M. M. Trintje. A. & G. Rice, Currie's Crossing	75.7	2.33	6.34	46.60	25.40	10.0	82.0
3rd.	Pauline Mercedes Jewel. A. & G. Rice	75.1	2.30	6.35	45.82	25.38	6.9	78.1
4th.	Pauline Fairmont. A. & G. Rice	72.2	2.40	6.49	48.12	26.00	.0	74.0
5th.	Kaatje de Boer 3rd. G. W. Clemons, St. George.	61.6	2.30	5.75	45.90	23.00	3.8	72.7
Jersey Cows over 36 months.								
1st.	Primrose Park's Prude. W. J. Craig, London.	65.9	4.16	6.80	8.32	27.2	.4	110.8
Grade Cows over 36 months.								
1st.	Jess. Rettie Bros., Norwich	96.3	4.03	8.84	80.8	35.36	.0	115.8
2nd.	Dina. T. H. Dent, Woodstock	119.7	3.90	10.69	68.2	42.78	3.4	114.4
3rd.	Jersey. James Leask, Greenbank	101.1	3.79	9.50	75.8	38.00	.5	114.3
4th.	Sweet Assurance. A. McDougall, Guelph.	89.4	3.90	8.46	77.9	33.9	1.8	113.8
Grade Cows under 36 months.								
1st.	Julia. T. H. Dent, Woodstock.	84.6	3.11	7.89	62.36	31.54	2.6	96.1
Shorthorns 36 months and over.								
1st.	Rene. A. W. Smith, Maple Lodge	81.5	3.08	7.72	61.52	30.88	1.2	93.6
2nd.	Gypsy Maid. F. Martindale, York	79.5	3.10	7.47	62.00	29.88	.0	91.9
3rd.	Mistletoe 5th. H. J. Davis, Woodstock	94.5	2.72	8.85	54.40	35.40	.0	89.8
4th.	Gracey Gwynne. J. Kelly, Shakespeare	76.1	2.92	7.42	58.40	29.68	.0	88.0
5th.	Roan Blanche. A. W. Smith, Maple Lodge.	72.4	2.79	7.02	55.80	28.08	2.5	86.3
6th.	Jubilee's Julia. H. K. Fairbairn, Theford.	71.7	2.61	6.58	52.20	26.32	4.3	82.7
7th.	Mary Maxwell. H. K. Fairbairn.	33.4	1.41	3.71	28.20	14.84	5.4	48.3
8th.	Francis Polson. H. K. Fairbairn.	28.0	1.00	2.55	20.00	10.20	3.9	34.1
Shorthorns under 36 months.								
1st.	Bella of York. F. Martindale, York	51.1	1.82	4.86	36.40	19.44	1.5	57.4
2nd.	Jeanetta. H. K. Fairbairn, Theford.	10.6	1.49	3.77	29.80	15.03	3.9	48.8
3rd.	Golden Gem. H. K. Fairbairn	40.9	1.46	3.88	29.20	15.52	3.5	48.2
Ayrshires over 36 months.								
1st.	Briery Banks Cora. N. Dymont, Clappison's Corners.	81.4	3.42	7.78	68.4	31.12	5.9	105.4
2nd.	Nellie Gray. N. Dymont	80.8	3.14	7.66	62.8	30.64	9.1	102.5
3rd.	Briery Banks Susie. N. Dymont.	62.1	2.15	5.68	43.0	22.72	8.8	74.6

SHEEP.

The sheep display is never disappointing at the Provincial Fat Stock Show, and the classes this year were well up in quality as compared with former shows, although some of the accustomed successful exhibitors were absent from the ring. Some new names appear in the list of successful showmen, however, so that the shortcomings in some sections are made up in others. There were in all 307 entries, including 37 for the block test, as compared to 275 entries in 1898, when no block tests were made. These figures include all sweepstake and group entries, so that it overestimates the actual number of sheep to some extent. This showing is particularly encouraging since all sections for ewes over one year old are taken out of the pure-bred classes this year for the first time.

Cotswolds were stronger than usual. The competition lay between the entries of John Park & Son, Burgessville; Geo. Allen, Oriel; T. Hardy Shore, Glanworth; and a new exhibitor, John Rawlings, Ravenswood. The ewe lamb section was a particularly strong one in numbers, breed characteristics, and fitting. Referring to fitting, however, leads one to remember that the block test, as conducted this year, has changed many of our minds as to what ideal fitting constitutes. Loading a sheep with a preponderance of fat is not fitting it, or, rather, it is not properly preparing the animal for the consumer, the supposed destiny of all fat sheep, as the judges of dressed carcasses showed by the placing of the ribbons. They also explained that unless mutton or lamb has a fair admixture of lean meat it cannot be sold at anything like a remunerative figure. The ewe lambs were well grown, and in nice killing form, living examples of the excellence in this picturesque and useful breed. The judging was done by Mr. Jos. Gaunt, St. Helen's. In this single ewe lamb section Park & Son won first, T. Hardy Shore second, and J. Rawlings third and fourth. Mr. Allen's entries had been subjected to a storm in coming to the show, which left their coats in a condition which placed them at a disadvantage. Five well-matured yearling wethers, owned by Messrs. Park and Allen, filled their section, in which Messrs. Park won the two best awards. In wether lambs the same exhibitors contested, with Park & Son again to the front in the two leading awards, and they also scored first in three wether lambs, with Geo. Allen in second place. In three ewe lambs Mr. Rawlings got what he deserved in the red ribbon, as the specimens were of very uniformly high quality, and were forward in growth and form. The second, third, and fourth awards were won by Messrs. Park, Shore, and Allen, respectively. Messrs. Park and Allen were the only exhibitors of dressed carcasses in this breed. Their wether lambs dressed particularly well, being juicy and plump, with a fair admixture of lean meat. Messrs. Park won first and second awards.

LINCOLNS.

From fear of competition, sales of show stock, or some other cause, the firm of Messrs. Gibson & Walker, Denfield, Ont., was the only exhibitor in this class. Their sheep were brought out in their usual bloom, ready for a tussel, so that

every section in the list was worthy if not numerously filled. The six ewe lambs made a particularly handsome showing. The dressed carcasses were of shearing wethers, which dressed out a high percentage of meat, but rather fat for the



ONE WETHER AND FOUR EWE LAMBS, SHROPSHIRE.

Winners of Prince of Wales Prize for five sheep under one year, against all breeds, at the Ontario Provincial Fat Stock and Dairy Show, 1899. The ewes were sired by Newton Lord, and the wether by his son.

BRED AND OWNED BY JOHN CAMPBELL, WOODVILLE, ONT.

epicurean palate. Lincolns and Leicesters were judged by Messrs. Jos. Gaunt and Hardy Shore, Glanworth, Ont.

LEICESTERS.

The ewe lamb section of this breed was pronounced by many competent sheep-men to be the best in the show; in fact, it was commonly remarked that a better one is rarely, if ever, seen at the English Royal Show. John Kelly, Shakespeare; J. M. Gardhouse, Highfield, and Messrs. Orr & Lillico, were the exhibitors, all of whom understand the showing business from the ground up. Kelly scored first and second, Gardhouse third, and Orr & Lillico fourth and fifth for single ewe lambs. The awards for three ewe lambs went in the same order, except that Kelly got first and fourth instead of first and second. With the exception of a lamb shown by Kelly, which won second, and which was the only Leicester entered in the block test, Messrs. Orr & Lillico exhibited all the wethers shown. They were a muttany lot, of good breedy type.

OXFORDS.

A new man appeared among the exhibitors of Oxfords, Mr. Kenneth Finlayson, Campbellton, Ont. His entry consisted of three grand ewe lambs, upon which he won first and second in the single section, and first on the trio. They were typical, uniform, and evenly fleshed, especially back of the shoulder, points at which this breed is improving year by year. Andrew Elliott, Pond Mills, and J. H. Jull, Mt. Vernon, were the remaining exhibitors. Elliott scored third and fourth in ewe lambs, and was the only exhibitor of wethers, of which he had a very fine lot, a yearling of which, the only Oxford killed, was pronounced by the judge in the block test to yield a superb mutton carcass, plump and fleshy, and well mixed. Mr. Jull's ewe lambs were a typical lot, in well growing form for a breeding herd, but needed flesh for this show. This class, as well as Shropshires, Southdowns, Dorset Horns, Suffolks, and Hampshires, were judged by Messrs. Geo. McKerron, Sussex, Wis., and Henry Arkell, Teeswater, Ont.

SHROPSHIRE.

always put up an interesting show, as the best

flocks in the country are drawn upon and fitted by skilled shepherds. Messrs. John Campbell, Woodville; D. G. Hamner & Sons, Mt. Vernon; Telfer Bros., Paris; Richard Gibson, Delaware; W. E. Wright, Glanworth, and W. H. Beattie, Wilton Grove, supplied the material that took a deal of consideration in the placing of awards, as the stock throughout was high-class in breed type, and generally at the height of bloom, with very few entries materially overdone. With this, too, the trimmers' art had been exercised to good account, so that the display was highly pleasing, alike to spectators and those who took occasion to handle the entries. The single ewe lamb section had no less than 14 entries, the poorest of which were fine specimens. Messrs. Hamner made a record here in carrying away the best award on a neat little sheep as one could find in a lot of hunting. She had a great back, broad and full, deep at chest, and full leg of mutton, besides her covering and style were faultless. The second fell to Richard Gibson's entry by Prince Royal, one of the high-per-cent. mutton sort, well let down in body, and of beautiful contour. John Campbell stood third and fourth on a model pair by his World's Fair winner, Newton Lord. In three ewes under a year, those of Campbell's Newton Lord's get were invincible, as they were as like as peas and as plump as need be. Hamner's came second and fourth, and Gibson's third. Wether sections were well filled throughout. Richard Gibson won first and third in shearlings, second in three wether lambs; Campbell won second in shearling and first on wether lamb; Hamner won second and third in single wether lambs and first for three of that sort; W. H. Beattie got into the money awards in three wether lambs, and Messrs. Telfer and Wright came in for commendation ribbons on different occasions. The block test revealed the fact that Shropshire mutton is good mutton. Mr. Gibson's wether lamb, which dressed 53 pounds, or 59 per cent. of live weight, was pronounced by the judges to be just what is wanted. It was fairly thick, and all salable at a good figure. W. H. Beattie's shearling was a second-prize winner. He dressed 99 pounds, which was also 59 per cent. of his live weight. He too opened well for high-class trade. Messrs. Hamner won third and fourth in this contest.

SOUTH-DOWNS.

By common consent this breed leads for mutton. The class this year was, as usual, well filled in nearly every section. The exhibitors were Messrs. T. C. Douglas, Galt; John Jackson & Son, Abingdon; W. H. Beattie, D. G. Hamner & Sons, W. E. & G. L. Telfer, and Richard Gibson. Competition in wethers was much keener than in ewes, the latter being confined to the entries of Messrs. Jackson and Telfer. The former won the lion's share of awards, securing all the firsts in the class except for dressed carcass, which was won by T. C. Douglas, whose shearing wether dressed 94 pounds, or 58 per cent. of live weight. Richard Gibson won second on shearing wether and second on dressed carcass, and Messrs. Telfer won second on three wethers under a year.

HORNED DORSETS.

With the exception of a single entry in yearling wether, which won first for Mr. W. H. Beattie, and a wether lamb shown by W. E. Wright, Mr. R. H. Harding, Thorndale, was the only exhibitor of Dorsets. The breed, however, was worthily represented in the nine entries on exhibition. The dressed carcass was referred to by the judges, Messrs. Yapp and Foulds, as particularly good.

HAMPSHIRES AND SUFFOLKS.

are increasing year by year, according to entries made for this show. Messrs. Jas. Bowman, Guelph, and W. J. Rudd, Eden Mills, showed Suffolks, and John Kelly, Shakespeare, Hampshires. The two breeds are much similar in appearance, and bear considerable resemblance in form. The Suffolk gives the impression of being leggy, but they handle wonderfully well and dress out an excellent carcass of toothsome meat. The Hampshire is a bit squarer, nearer the ground, and takes on a good back. The two breeds competed in ewe lambs, where the Hampshires won first and second awards. In wethers, Rudd scored the best premiums, but in dressed carcasses Bowman took first and second. The meat was nicely laid, with lean predominating.

GRADES AND CROSSES.

had a good entry, largely well-come animals shown by the breeders of several of the pure breeds. They were largely gotten by notable stock rams, which gave them strong breed type of whatever blood predominated in them. John Campbell scored several victories with Shrop. grades by Newton Lord and his son. J. M. Gardhouse was a very successful competitor with his Leicester grades, as were also Messrs. Orr & Lillico. Gibson & Walker, with a big, nicely-developed Lincoln ewe lamb, won third, after Campbell and Gardhouse.

SWEEPSTAKES.

A sweepstake award was given for the best specimen in each of the breeds. In Cotswolds, John Park & Son won; Lincolns, Gibson & Walker; Leicesters, John Kelly's ewe lamb; Oxfords, Andrew Elliott's shearing wether; Shropshires, Richard Gibson's shearing wether; Southdowns, John Jackson's shearing wether; Dorset Horn, W.

H. Beattie's shearling wether; Hampshire and Suffolk, John Kelly's ewe lamb; while the best sheep in the show was John Jackson & Son's Southdown shearling wether, that met a very strong rival in J. M. Gardhouse's Leicester shearling ewe.

The Prince of Wales prize for five pure-bred lambs, ewes or wethers, brought out a very strong class. John Campbell finally won with one wether and four ewes of beautiful type. The second went to John Rawling's Cotswolds with which he did so well in the sections of the Cotswold class.

DRESSED POULTRY.

Though not large, this department was fairly filled. Bronze turkeys were strong. Among the chickens, a very fine pair of Barred Plymouth Rocks deserve mention. A great many of the birds on exhibition would have shown to much better advantage had they been properly dressed. One interesting feature of this department was a coop of Barred Plymouth Rock chickens (grades), in charge of Mr. and Mrs. Yuill, of Carleton Place, that were fed every day by the cramming process, and killed on the last day of the show, and dressed in the manner required for the export trade. All these proceedings were watched with great interest. Another was a case of birds from the Ontario Agricultural College, Guelph, which showed a couple of chickens bought on the Guelph market in the condition that the average farmer markets his poultry, and birds fattened for different periods and on different foods at the College, making a good object lesson. Lot 1 represented ordinary chickens such as sold on Guelph market, and were purchased at 45 cents per pair. Lot 2 were chickens fattened for eleven days. Lot 3 fattened for five weeks on 75 per cent. ground oats and 25 per cent. ground buckwheat. Lot 1 weighed 2 pounds 12 ounces undrawn; lot 2, 4 pounds 1 ounce; and lot 3, 5 pounds undrawn. Lot 1 weighed, drawn, 1 pound 14 ounces; lot 2, 3 pounds 6 ounces; and lot 3, 4 pounds 2 ounces, which shows the relative advantage to buyers of getting well-finished poultry. The relative value to consumer was placed at 22.5 cents for lot 1, 42.2 cents for lot 2, and 49.5 cents for lot 3. This conclusion is deduced from the relative relation of the lots to each other in proportion of edible meat, without taking into consideration the superior quality of the meat on the finished birds. Lectures were delivered at different times by Prof. Gilbert, Mrs. Gilbert, W. R. Graham (poultry lecturer at Guelph), and J. E. Meyer, Kossuth, on subjects connected with poultry.

SWINE.

The swine exhibit grows better and better every year. Every class was nicely filled, and the quality has never been beaten. Taking the classes in the order of the catalogue, there were 28 entries of Berkshires in the breeding classes, the same number of Yorkshires, 46 Chester Whites, 21 Poland-Chinas, 18 Essex, 24 Tamworths, 18 Duroc-Jerseys, and 9 grades. Chester Whites thus hold the pride of place as regards numbers. Besides this, there were 35 pigs entered in the bacon classes for various breeds, and 32 for the block test, not counting any of the many animals entered for the numerous sweepstakes prizes.

BERKSHIRES.

George Green, Fairview, and T. A. Cox, Brantford, were the two largest exhibitors of Berkshires. Besides their entries there were only three others. George Hill, Delaware, had a sow good enough to win in the class for sows not exceeding nine months; she had plenty of substance and conformation, while her quality was of the best. W. J. Rudd, Eden Mills, showed two pigs, but did not win on them in the breeding sections. George Green took second place for barrows under nine months, the first prize going to T. A. Cox's entry, the latter being of more substance than Green's, which was a pig of good quality. The Fairview herd had a couple of level, smooth barrows under six months, on which it won the first and second awards, Cox being third. The section for sows under fifteen months was a very strong one. Cox won here with a fine sow, while Green's pair, which were not far behind it, came in second and third; Cox won second and third also on younger sows in the next section. Sows under six months deserve special mention. There Green led, while Cox secured second and third, and Green was fourth. Green's two winners were also shown as bacon hogs and in the block test, where they won first in both instances for the breed, and were also second for the grand sweepstakes. In close competition Green won over Cox the red ribbon for three pigs, the offspring of one sow.

In the bacon class for Berkshires Green won 1st as stated above, and also second, W. J. Rudd being third. Cox secured the sweepstakes for best single Berkshire.

YORKSHIRES.

Yorkshires were a good representative class, each section being well filled with entries. For barrows under nine months J. E. Brethour, of Brantford, carried off the red ribbon with a typical bacon pig, and was also third with one of similar type. Jos. Featherston & Son, Stroudville, came in second with a pig of good quality. H. J. Davis, Woodstock, was fourth. Messrs. Featherston had a very superior animal in the section for barrows under six months, whose smoothness and finish put him at the head of the class. Brethour took the lead in the white ribbon class, by a full brother, best smooth and even, but the third prize one seemed to us rather the better pig of the two. Length, depth,

and smoothness were the characteristics of Brethour's sow between nine and fifteen months old, which beat Featherston's entry for first honors for sows of that age. In the next section for sows under nine months Brethour's three entries were carrying too much flesh, and so first went to a capital smooth sow of Featherston's, second to a lengthy one of Harry Davis' string, and third and highly commended to Brethour, while T. A. Cox's entry was commended.

Brethour evened up matters in section five, which was for sows under six months, by winning first on a pig of great length and evenness, with a good front and hind end. A full sister of this pig won third. Featherston's entry, which was also smooth and of nice type, was second. Brethour won first and third for three pigs out of one sow, while Featherston was second. Brethour had the honor of winning the sweepstakes for the breed with Oak Lodge Buttercup 15th, Featherston being second with Whiston Maid. The first-prize winners in the several sections competed.

Five pairs of pigs had been entered for the export bacon class for this breed. The competition for first place was very close, and the judges could not agree, one favoring Brethour's pair and the other preferring Featherston's. Eventually they gave the first to Featherston and the second and third to Brethour, but agreed to allow Brethour to show for the sweepstakes and to call in an umpire to decide between them.

CHESTER WHITES.

In this class Bennett & Pardo, Charing Cross, were strong, having a good lot of typical pigs that were very nicely fitted. They won for barrows under six months, for sows of the same age, and for three pigs out of one sow. D. DeCoursey had a very good type of a barrow in Conqueror, shown in the section for barrows over six and under nine months. He showed great evenness, quality and depth, and won first in his class. Another lengthy pig shown by this exhibitor came in second for barrows under six months. Wm. Butler & Son, Dereham Centre, secured first on sows under fifteen months, and also the sweepstakes for the breed with her. Jos. Cairns, Camlachie, had a capital young sow not exceeding



SOUTHDOWN SHEARLING WETHER.

Winner of first in his section, sweepstakes in his class, and grand sweepstakes over all breeds at the Ontario Provincial Fat Stock and Dairy Show, 1899.

HE WAS Sired BY IMP. STREETLEY, AND BRED AND EXHIBITED BY JOHN JACKSON & SONS, ABINGDON, ONT.

nine months old, that received the red ribbon, with Butler's entry second. W. E. Wright, Glanworth, and H. George & Sons, Crampton, won some of the prize money.

D. DeCoursey had no difficulty in winning in the bacon class for Chesters; Butler and George coming next, in the order named.

POLAND-CHINAS.

There were two exhibitors of Poland-Chinas, W. & H. Jones, Mt. Elgin, and W. M. Smith, Fairfield Plains. The former won all the first prizes in the breeding sections and the sweepstakes for the breed, but in the bacon class for Poland-Chinas, Smith came in ahead.

SUFFOLKS AND ESSEX.

Although this was a joint class for both breeds, no Suffolks were entered, and so Essex had it all to themselves. Jos. Featherston & Son won all the firsts, except for sow under nine months and for three pigs, the offspring of one sow. They also won the sweepstakes for the class. T. A. McClure, Meadowvale, won, among other awards, first for sow and trio of pigs. Featherston's pigs were at the head in the bacon class.

TAMWORTHS.

This breed made a very creditable display. Andrew Elliott & Son, Galt, won first and second on barrows under nine months, both being of good bacon type, but the first especially so. These exhibitors, also, were at the head of the barrow class under six months, with a deep pig; W. R. McDonald, Ridgetown, being second and third with pigs of good type. W. M. Smith, Fairfield Plains, had the winner in sows under fifteen months, beating an extra good pig shown by Elliott & Son, and one by H. George & Sons. J. R. Newell & Son headed the next section for sows under nine months, with W. R. McDonald second, third, and highly commended. All these sows were long, deep pigs. A large, good sow shown by George had two of Elliott's Guelph winners in the section for sows under six months. McDonald being highly commended. Elliott won for three pigs with his fifteen months old sow and his two

nine-months-old barrows, McDonald being second with three nine-months-old sows. W. M. Smith secured the sweepstakes of the class on his sow. The order in the bacon class was: H. George & Son; James Smith, Harrietsville, whose sow, under 6 months, was unnoticed in the breeding class; A. Elliott & Son, and W. R. McDonald.

DUROC-JERSEYS.

Tape Bros. Ridgetown, had practically very little opposition here, winning everything in both the breeding and bacon classes, except two fourth prizes in the former and third in the latter. W. M. Smith, Fairfield Plains, was their only competitor.

GRADES AND CROSSES.

T. A. Cox won first and second for barrows under nine months with a pair of Berkshire-Tamworth cross-bred hogs of good type. Andrew Elliott & Son were to the fore for young barrows, winning first and second, and Butler third. Elliott's pigs were a cross of Tamworth and Berkshire, and Butler's a Chester and Duroc cross. Cox won again for sows under nine months with pigs of Tamworth and Berkshire blood. Elliott's similar cross headed the younger sow section, Butler being second.

SWEEPSTAKES FOR BACON HOGS.

Not being able to decide on the sweepstakes for bacon hogs, the judges called in Prof. Day, who sent first to J. E. Brethour's pair to which second had been given in their class, second to Featherston's pair which had previously beaten them, third to a pair of Tamworths, and fourth to Geo. Green's Berkshires.

SWINE IN THE BLOCK TEST.

The killing, dressing, and judging of the dressed swine furnished instructive information to the large numbers of those who were interested spectators of this part of the show. Each breed had a class to itself, and there was a sweepstakes which included all breeds. Two carcasses were shown by each exhibitor. As this department was most important, we secured an expert to report on the carcasses, who writes as follows: In Berkshires Geo. Green won first and third prize, and W. J. Rudd second. The first-prize pair were very fairly up to the standard, with, perhaps, a little deficiency in the loins. The meat was good, and the fat about right thickness, except on the shoulder, where it was slightly too thick, but not much. In the second-prize pair, one had the fat pretty evenly distributed, but the other carried too much fat on the fore part of the back and shoulder. Their loins were well filled. The fat of the third-prize pair was rather uneven and thick in parts. The carcasses, too, were hardly long enough.

The first-prize Yorkshire carcasses, which belonged to J. E. Brethour, were of a good type of bacon hog. The fat was not quite of even depth all along, but was quite good enough to justify the carcasses taking first honors, especially as the lean meat was good and juicy, and well distributed. One of the second-prize lot, shown by J. Featherston & Son, was good, but the other was not quite so perfect as regards thickness of fat on the back and shoulder. G. B. Hood owned the third-prize pair. They were too highly fed, were thick in the flank, and not quite long enough.

Andrew Elliott, Galt; A. C. Hallman, New Dundee, and W. R. McDonald, Ridgetown, were the order of the prizewinners in the Tamworth class. Elliott's pigs dressed out a meat of nice quality, with good loins and bellies, and the fat was well apportioned. Hallman's pigs were well finished, the fat was evenly put on, and the texture of the lean meat was good. They had not the length of the first-prize winners, however. McDonald's pigs did not mate quite so well. One of them was of good type and medium length, the other was too fat.

R. H. Harding had the first-prize winners in Chester Whites. They were of a fairly good style, a little short for the requirements of the bacon trade, and somewhat inclined to fatness. This pair won fourth alive. Both the second and third prize winners, owned by W. Butler & Sons and H. George & Sons, respectively, were short and fat.

W. M. Smith's entry of Poland-Chinas secured first over W. & H. Jones' two pairs. The first-prize ones were rather short, but not too fat. The fat of one of the second-prize pair was nearly right, the other was not quite so good on that point. They were both short, however. The third-prize pair were too fat and short.

Tape Bros. owned the first-prize Duroc-Jersey carcasses. They were of fair length, but too fat, and the lean was not juicy enough. W. M. Smith's two entries, which came in second and third, were short and fat, and would be classified as "stouts" in a packing-house.

The Essex carcasses were all short, and most of them were too fat, although the first-prize pair were not so bad in that particular. J. Featherston & Son owned the first and second prize pairs, and T. A. McClure the third.

Grades went in the reverse order that they did alive. H. George & Sons won on a pair of Tamworth grades of good length, with the fat and lean well distributed and of good quality. Elliott & Son's Tamworth-Berkshire cross were rather smaller, but the fat was even and not too deep, except a trifle on the shoulder.

The sweepstakes for two best dressed hogs went to Brethour's pair of Yorkshires, Green's Berk-

shires being second, and Featherston's Yorkshires third.

It is but fair to state, in connection with this section, that Prof. Day, before deciding the award of the first prize, submitted the question to the two judges, who were packers, whether Brethour's pigs were too heavy for bacon pigs, and received the reply that they were not.

The Smithfield Fat Stock Show.

The 101st annual show of the Smithfield Club, held in London, England, last month, was, as usual, full of interest to stockmen. The single judge system was for the first time adopted at these shows, and proved generally satisfactory, and the work was expeditiously done. The championship in the beef cattle classes, open to all breeds, went to a 2-year-old Hereford steer, illustrated in this issue, bred and exhibited by Her Majesty the Queen. He also won the championship plate, as well as Her Majesty's Challenge Cup for the best beast bred by the exhibitor. His live weight was 1,936 lbs., and he was admitted to have been one of the very best bullocks shown in recent years. The Shortforns had not for once a very formidable candidate for the grand sweepstakes, but Mr. Bruce's 2-year-old white steer, Kelemanjaro, from the Inverquhomery herd in Scotland, the champion of the breed, though lacking in his under line, is said to have had a perfect top and superb breed character, and adding to this his great weight, 2,018 lbs., it will be seen he was no mean rival. He was sired by Waverly, and out of a Rosebud cow by Royal Robin. The first-prize heifer under 3 years, Mr. Learner's Patience, weighing 1,917 lbs., was bred by Mr. John Ross, and sired by Champion.

In the Aberdeen-Angus class the heifers seem to have been much better than the steers, and the championship went to the Earl of Strathmore's Victoria of Glamis, weighing 1,840 lbs. at less than three years, her general symmetry, wealth and style being very marked.

In the Galloway class a popular champion winner was Mr. Biggar's 2-year-old steer, Substance, weighing 1,900 lbs., which, but for a little plainness in his forelegs, it is said would have been well in the running for the grand championship. He was a massive, thick-fleshed steer of fine character. The first-prize yearling steer, shown by Mr. Murray Stewart, was big, and as good as big. The same exhibitor had the first-prize heifer, Annie 3rd of Cally, a short-legged, wide heifer of beautiful quality. The cross-bred cattle were an extraordinary collection, and elicited great admiration. The champion of this class was Mr. Learner's big-quartered, wide, massive, beautifully-balanced 2-year-old heifer, Let 'Em All Come, who also won the £50 prize for the best female in the whole show, and she was reserve number to the Queen's Hereford steer in the competition for best animal, any age or sex, in the show. She weighed 1,845 lbs., and was bred by Mr. John Ross, Meikle Tarrell, Scotland.

We subjoin a table, showing the greatest daily gains in weight made by prizewinning beasts of the various breeds:

	Age in days.	Weight in lbs.	Daily gain.
Devon	523	1,188	2.23
Hereford	686	1,653	2.41
Shorthorn	536	1,340	2.50
Sussex	714	1,544	2.16
Red Polled	686	1,660	2.42
Aberdeen-Angus	599	1,399	2.18
Galloway	726	1,390	2.18
Welsh	724	1,745	2.41
Dexter	694	857	1.24

SHEEP.

Although not quite so numerous as at the Centenary Show last year, the display of sheep was an over-average one for most breeds, the most notable exceptions being the Border Leicester, Cotswold, Lincoln, Devon, and Oxfordshire. Moreover, only three pens of Shropshires had been entered in the yearling wether class. The awards under the single judging system appear to have been tolerably satisfactory. The prizes were as usual for pens of 3 lambs and pens of 3 yearling wethers.

Leicesters.—Mr. E. F. Jordan and Mrs. S. Perry-Herrick had a couple of pens each in either class, the leading premiums in both going to the former; but the two lamb pens of the latter were both noticed, while Mrs. Herrick's two wether pens received third prize and reserve.

Border Leicesters were only represented by a single pen in either class, the lambs from the flock of the Earl of Rosebery, and the wethers from that of Mr. J. Douglas Fletcher. The lambs scaled 4 cwt. 14 lbs., which was rather more than either of the Leicester pens weighed. The wethers were not up to the weight of either of the Leicester pens.

Cotswolds were represented by three pens of lambs and one of wethers. Mr. Wm. Thomas' lambs were well-grazed, fine specimens, two of them especially. They were 18 lbs. over 5 cwt., but Mr. F. Craddock's second-prize pen scaled 4 lbs. more, or 196 lbs. each. Mr. Craddock's lambs were younger than Mr. Thomas', the age of the second pen being returned as eight months three weeks, but that of the first pen, which also took the breed cup, was ten months. Mr. Craddock had no competitor in the wether class, but his sheep were noble-looking, grand specimens.

Lincolns, although not so numerous as sometimes, were of a high order of merit, both in the lamb and wether classes. Mr. Henry Dudding's first-prize lambs, which also won the breed cup, scaled at nine months three weeks old 5 cwt. 2 qrs. 7 lbs., his reserve pen being 17 lbs. over 5 cwt., but

Mr. John Pear's second-prize pen was the heaviest their live weight being 5 cwt. 2 qrs. 14 lbs., or 210 lbs. each. Mr. Dudding had the first-prize pen of yearling wethers, and Mr. Pear the second-prize pen. The whole of these gave remarkable weights, the second-prize pen pulling down the scales at 9 cwt. 10 lbs., or 340 lbs. each.

The championship for the best pen of three long-wool sheep went to a pen of mountain sheep, and the reserve number to Mr. Dudding's first-prize pen of Lincoln lambs, which showed a daily gain from birth of 11.24 ounces, while the first-prize pen showed a daily gain of 5.77 oz. It was evidently the actual market value of the carcass that carried the award, and not early maturity.

Southdowns made the largest and best exhibit of any in the sheep classes. The lamb class, which numbered 21 entries, had 19 pens of three present. The daily gain averaged 7.80 oz. The first-prize pen was from the flock of Mrs. Montefiore, and averaged 8.49 oz. Next came two pens of Mr. Adeane's, both of excellent merit, the daily gain of one pen being 8.70 oz. The prizes for yearling wethers went: first to H. R. H. the Prince of Wales, second to J. Coleman, third to Duke of Richmond.

Hampshires were well represented, and the first and second prizes for lambs went to T. F. Buxton, and third to Earl of Carnarvon. The daily gain of the first-prize pen was 10.91 oz. Mr. Buxton won also first and third for yearling wethers, and Lord Rothschild second.

Suffolks made a grand showing, ten pens of lambs being shown, and the first-prize pen of Herbert E. Smith weighed 5 cwt. 2 qrs. 18 lbs.—211 lbs. each. The Earl of Ellesmere's wethers won first and second, and the first-prize pen of these won the chiefest honors of the whole sheep classes, the Prince of Wales' 100-guinea challenge cup for the best pen of sheep in the show.

Shropshires were sparsely represented, which can only be accounted for by the great demand for stock purposes, which precludes the castration of good lambs, but the quality was good. There were three entries of lambs, the first place being given to the entry of Lady de Rothschild, and second and reserve to those of Mr. Philo L. Mills. The first-prize pen weighed 4 cwt. 1 qr. 10 lbs., and the second-prize pen 3 cwt. 3 qrs. 2 lbs. There were but three entries of wethers, and in this class Mr. Mills scored first and second, and Mr. R. P. Cooper third. The weight of the first-prize pen was 6 cwt. 3 qrs. 2 lbs. The breed cup went to Mr. Mills' yearling wethers, which were of grand quality.

Oxford Downs had also a short entry, the only exhibitors of lambs being Mr. Stillgoe and Mr. J. G. Williams, the entry of the former exhibitor winning first honors and the breed cup. Their age was entered as 10 months, and their weight was 5 cwt. 1 qr. 22 lbs., or 203 lbs. each. Two pens of wethers were shown by Miss Alice de Rothschild, who received the prizes, and whose sheep are said to have been an excellent type.

Dorset Horns.—Mr. W. J. Horne won with lambs of fine quality, weighing 5 cwt. 2 qrs. 5 lbs., and Mr. John Hayman was second with a pen weighing 5 cwt. 24 lbs. Mr. Horne had also the first-prize wethers, of fine character and well fleshed.

THE SHORT-WOOL CHAMPIONSHIP.

The competitors for this honor were Southdowns, Hampshire Downs, Suffolks, Shropshires, Oxford Downs, Dorset Horns, and cross-bred sheep. These breed cup winning pens, drawn out for this competition, made a grand collection, and, contrary to many ideas expressed at the ringside, the contest soon narrowed itself down to the pens which represented the Suffolk, Southdown, and Hampshire Down breeds. The Hampshire Down pen, with their grand backs and legs, with good top and under line, coupled with their large average daily gain of 10.91 oz., were very strong favorites, and comparing the average daily gain shown by the Suffolk wethers, of 7.07 oz., and that of the Southdown wethers, 4.70 oz., some thought, seeing that they were most excellent and typical specimens of their breed, they might have secured the award. True, they were not quite so evenly matched as a pen as the Suffolks were, but their early maturity and grand legs, with first-class backs, might have carried them to the top; such, however, was not the opinion of the judge, who preferred the older sheep, and selected Lord Ellesmere's Suffolks for the championship, and this, from a breed point of view, is undoubtedly a splendid pen of sheep, excellent in flesh, with grand backs, loins, and quarters, and well sprung over the ribs; but they have not that development in respect to the leg which was so pronounced in the Hampshire Down pen. Then, in regard to the R.N., the Southdown wethers from Sandringham were preferred to the Hampshire Down lambs; the latter were much admired for breed type, early maturity, conformation, development, and quality of flesh.

We append a table showing the best performances in respect to daily gain in weight of the different breeds:

	Age in days.	Weight in lbs.	Daily gain.
Leicester	213	148	0.61
Border Leicester	256	154	0.60
Cotswold	261	194	0.73
Lincoln	288	210	0.73
Devon Long-wool	271	213	0.78
Cheviot	277	155	0.68
Southdown	274	146	0.53
Hampshire	313	219	0.70
Suffolk	291	211	0.75
Shropshire	274	162	0.59
Oxford Down	327	203	0.62
Dorset	355	207	0.62

PIGS.

Large Whites, or, as Canadian breeders term them, Improved Yorkshires, supplied one of the best pairs of pure-bred pigs in the show. These were two young sows of 8½ months old, bred and exhibited by Mr. Sanders Spencer, Holywell Manor, St. Ives. This pair of pigs won the breed cup in the section. Mr. A. Hiscock's (Jr.) pigs came next to Mr. Spencer's, then the Earl of Rosebery.

The Berkshire classes for pairs were, as usual, well filled, fifteen pens being in the junior class and eleven in the other. Mr. Joseph Saunders was first in the former, his pair showing very nice character and rich flesh. Mr. N. Benjafield came next with a pair of admirable type in nice heads, hair and form. The pair of Mr. McCalmont, M. P., were also shapely and of nice type, and the reserve pen of H. R. H. the Duke of York, by Gold Medalist, from Juliana, seemed likewise very deserving. Mr. Arthur Hiscock's pair, by Julius Caesar, did not quite match, or they would probably have had higher position, both being remarkably good. In the senior class, Mr. N. Benjafield was first with a very uniform pair, carrying admirable tops and of the right type.

The high merit of the single Berkshires has already been mentioned, and the Earl of Carnarvon might feel proud of the distinction of being foremost in the admirable array, which was with a pig having a grand middle and excellent quality. Mr. J. A. Fricker won second prize with a fine, deep animal, very fat, but of high quality. Mr. N. Benjafield got third prize with a lengthy one, carrying a very good top, while Mr. T. P. Willis and Mr. A. Hiscock were H.C., and the exhibit of the former reserve, with full-shaped, good baconers.

Tamworths were few, but of nice color and quality, but the pigs were deficient in length, and very light in the middle. Mr. R. Ibbotson, Mrs. E. Ibbotson, and Mr. Cy. Taylor won the prizes, the first named winning the breed cup.

Cross-breds were many and various, some of the best pigs in the show being in this class, most of them being crosses of the Large or Middle White and the Berkshire breeds. The best pair in the other class were of the Large White and Berkshire cross, and were declared to be the best pen of fat pigs in the show. Preference was given to Mr. Hiscock's older pen for the breed cup, and this pen was the one which carried off the champion plate as well as the Duke of York's challenge cup for the best pen of two pigs exhibited. In the junior class Mr. Geo. Atkins was placed second to Mr. Hiscock, his cross being precisely similar, but, singular to state, one of the pigs came out dark colored and the other white. Mr. G. T. Tomkins' third-prize young pair were by a Berkshire boar from a cross-bred sow. They, too, seemed of good quality; the reserve pen of Mr. Chissell being small, full-shaped Whites. Mr. Alfred Brown was second in the class for senior pairs with deep, massive specimens of the Yorkshire-Berkshire cross, Mr. George Atkins' third-prize-takers of a similar cross running them very close, while Mr. N. Benjafield's pair from a Berkshire sow by a Black breed boar would probably have been higher than reserve, if one of them had been as good as the other.

THE CARCASS COMPETITION.

The animals entered for the dressed carcass competition were not eligible to show in the classes for live animals, as they were to be killed on the night of the first day of the show, and were only on exhibition alive on that day.

The first prize and junior championship in the cattle carcass competition for steers not over 2 years went to Mr. J. D. Fletcher's cross-bred steer, got by an Aberdeen-Angus bull, and from a Hereford cow, weighing alive and fasted, 1,358 lbs., and his carcass weight 876 lbs., being 65 per cent. of the live weight. The senior championship and first prize for steer over 2 and under 3 years was won by Her Majesty the Queen's Aberdeen-Angus entry, weighing fasted 1,308 lbs., and dressed 894, or 60.7 per cent. Mr. Nimmo's Galloway was the second-prize winner, weighing alive 1,690 lbs., and dressed 1,155 lbs., or 68.75 per cent.

With regard to the sheep carcasses, the usual complaint was that they carried too much fat. In Long-wool wether lambs the first prize was given to a Mountain lamb, weighing alive 100 lbs., and dressed 71 lbs. The second-prize lamb was a Cheviot, which weighed alive 100 lbs., and dressed 62 lbs. Mr. Dudding's Lincoln lamb weighed alive 145 lbs., and dressed 86 lbs., or 59 per cent.; the excess of shrinkage in this case being principally in the skin, which, with its wealth of wool, weighed just twice as much as that of the second-prize winner.

In Long-wooled yearling wethers, the first and champion winner was a Mountain sheep, whose live weight was 158 lbs., and dressed weight 104 lbs. The second-prize winner was a Cheviot weighing 182 lbs. alive, and 123 lbs. dressed.

In Short-wooled wether lambs, the first prize went to Mr. Buxton's Hampshire lamb, weighing 118 lbs. alive, and dressing 95 lbs. The second-prize winner was S. R. Sherwood's Suffolk, which weighed alive 145 lbs., and dressed 95 lbs.

In Short-wooled yearling wethers the first prize and championship of the class was won by Mr. Baxendale's Hampshire, with a live weight of 198 lbs. and a dressed weight of 126 lbs. The second place was given to a cross-bred wether, weighing 148 lbs., and dressing 97 lbs.

The cwt. and qr. used throughout this report represent 12 and 28 pounds, respectively.

Effect of Food on Quality of Milk.

E. O. Arenander (*Nord. Mejeri Tidn.*, 14, 1899): "Analyses of about 2,000 samples of milk, delivered at creameries in Norrland (Sweden) were made at the chemical plant-biological station at Lulea, and published in the report of the station for 1897. The results show, in a striking manner, that the fat content of milk may be produced 1 to 2 per cent. below normal by scant feeding. During the period from January to May, Norrland cows are, in general, fed only a meager allowance of marsh hay or old-stock hay, and hence are in a very poor condition when turned out on pasture in June. The results of the analyses published point clearly to three periods of feeding, namely, (1) pasture (June to September); (2) ample stable feeding (October to December); and (3) scant stable feeding (January to May). The variations in the fat content of the milk during these periods are shown in the following table:

PERIOD.	Variations in fat content.					
	Maximum.		Minimum.		Average.	
	Per cent.	Per cent.	Per cent.	Per cent.	Per cent.	Per cent.
1 (June to September), pasture.	5.0-5.8	2.65-2.9	3.71-4.23	3.71-4.23	3.71-4.23	3.71-4.23
2 (October to December), ample stable feeding.	4.1-4.2	2.80-2.9	3.82-3.82	3.82-3.82	3.82-3.82	3.82-3.82
3 (January to May), scant stable feeding.	4.0-4.6	1.10-1.9	3.20-3.30	3.20-3.30	3.20-3.30	3.20-3.30

The average fat content for the year was 3.35 per cent. The author concludes that the fat content of milk cannot be increased at will by increasing a normal ration, but, on the other hand, it can be greatly decreased by scant and poor rations. If a change is made from a deficient to a normal ration, the fat content of the milk will again be raised to the limit determined by the inherent qualities of the individual cow.

The high fat content of milk from cows on pasture is considered remarkable, and is attributed in part to the effect of the healthful summer climate of northern regions. F. W. WOLL.

Wintering of Idle Farm Horses.

To the Editor FARMER'S ADVOCATE:

We have generally twenty horses, colts and weanlings to winter, and have been very fortunate so far, having lost only one mare in ten years. Our stable is large and roomy, with plenty of light. After the heavy work is over, horses down in flesh, we usually feed pretty liberally for a while, to get them gaining before the cold weather begins, as we find it very hard to get them up in flesh in cold weather. We turn our horses and colts out for exercise every day it is not blowing too hard. We feed them a gallon of oats in the morning, with as much straw as they will eat up clean, and the same at night; all the water they want three times a day, with lots of currying, and the stable kept nice and clean. For any person who has a power and straw cutter, there is nothing to equal cut oat sheaves, as horses will live well and fatten on them without anything else. They do well on sheaf oats not cut, but waste too much. We always try to get our foals weaned before the green grass is all gone, and then we feed sheaf and a little chopped grain, about a quart, twice a day, with plenty of water. I know a great many farmers do not give their horses enough water in the winter, which is a big mistake, as they need a lot of water in the winter when feeding on straw. We usually commence about the 20th of March to feed up for spring work. The rations are much the same, only fed three times a day instead of morning and night, with a boiled feed of wheat and oats and bran, mixed, twice a week, and for exercise we hitch them up turn about and drive around, if there is nothing else to be done with them. We give our work horses half a pail of the boiled feed with condition powders if not doing well. We never feed our horses at any time over a gallon of oats at a feed. I might say that the death of the mare above referred to was caused by inflam-

mation of the right lung, brought on by a chill on going out of a warm stable into the cold air, and getting a drink too soon after going out. Too warm a stable is not wanted, the nearer the freezing point the better, but never above 50 degrees. Give plenty of salt at all times.

Wishing the ADVOCATE and staff the season's complements and a prosperous New Year, and hoping to see the ADVOCATE still our leading agricultural paper for 1900. J. D. DICKSON. District of Indian Head.

The Profit in Stockers.

At an Institute meeting recently held at Posen, addresses were delivered by Hugh McKellar, chief clerk, Department of Agriculture, and G. Harcourt. The meeting was well attended, and a decided success. Mr. McKellar addressed the meeting on the subject which is perhaps of most importance in the district, that of stock raising. He pointed out that in the spring of '98 the trade in stockers began with the United States owing to the scarcity of cattle and a surplus of corn. The Americans were ready buyers of year-olds at from \$15 to \$20 each, and of two-year-olds at \$20 and \$40. They, however, preferred to invest their money in yearlings, as the outlay per head was considerably less, and the capacity of the yearlings for converting cheap corn into profitable beef greater than in the case of the two-year-olds. That year 20,000 stockers were shipped to the United States, and only 9,500 to the Northwest Territories. Protests were made by many prominent in stock matters against this trade, arguing that the farmers were losing money by selling unfinished stock. However, the prices were so tempting that farmers, considering they were getting full value for their young stock, kept right on selling them. Canadian ranchers and live stock handlers, however, very soon began to realize that there was good room for profit on money invested

The Winter Show.

The Ontario Provincial Fat Stock, Dairy and Dressed Poultry Show, held last month in the Western Fair buildings at London, while perhaps not quite as full in the number of entries in the beef cattle classes as in some former years, was yet well filled in all other departments, and never on any previous occasion of this kind did the best animals shown measure so well up to the ideal type, and never before have the superior educational advantages of this class of show been so clearly demonstrated. If the attendance of visitors was less than in the last two or three years, it was but a repetition of the experience of the promoters of such events in this country when held in larger cities, and was due to no dereliction of duty on the part of the officers and committees of management, who did their part faithfully and well. If there was a defect in the management at any point, it was perhaps in the method and manner of the local advertising, which certainly failed to create an interest on the part of the people of the city and neighborhood, from whence the bulk of attendance at these exhibitions usually comes. The attendance of farmers and stockmen was probably larger, more representative, and from a wider extent of the Provinces than on any previous occasion, partly owing, no doubt, to the liberal arrangements made by the Department of Agriculture, by which the Farmer's Institute delegations were enabled to avail themselves of the helpful lessons presented in the practical demonstrations brought out in the living examples of approved types of animals, and also in the dressed carcass competition and the methods of their preparation for market. Never at any former fat stock show in Canada was the championship winner in the cattle classes so nearly a perfect model of the type and quality required by the markets, never was his closest rival so nearly equal to the winner, and never before were 1,800 pounds of high-class flesh presented in smaller superficies or likely to shrink so small a percentage when dressed. Never in the dairy section of these shows, nor in any other public milking trial in America, was so great a record made by a milking cow as was demonstrated by the indisputable evidence of weights and measures on this occasion, and that is saying a great deal. These statements we are confident will be endorsed without demur or dissent by the great majority of those who were present and are conversant with the facts, and we might go further and state that in our opinion the best of the beef cattle shown this year, apart from the champion and his nearest competitor, were nearer to the standard of first-class butcher's beasts than the best usually seen at these shows, and the best dairy cows competing in all the classes were better in conformation and promise, and generally better in performance, than at any previous winter show. So far as the cattle classes, at least, are concerned, Canadian breeders and feeders are not merely marking time, but are making commendable progress.

In regard to the sheep and swine departments, we are not sure that as marked proportionate improvement in the type and quality over the display of the two former years can justly be claimed even in the best specimens shown, but the competition in these departments was well up to the mark in numbers, and a very large proportion of the exhibits conformed nearly to the desired standard of form and quality, though too many came short of it.

The dressed carcass competition, although limited to sheep and swine, was one of the most interesting features of the show, from an educational standpoint, and was studied with keen interest by breeders and feeders and by farmers generally, showing, as it did, the extent of shrinkage in killing, the deficiency in quality and condition of flesh where animals had been killed too early, being insufficiently fed and fitted for market, and in other cases where they had been carried past the point of best condition, being made too fat, and their value as food minimized on that account. The comparison of these extremes clearly shows that there is a golden mean where fat and lean are properly proportioned and a tender, juicy and well-flavored product is secured, which brings, or should bring, the best price.

The practical and pointed addresses of the judges in the dressed carcass competition, giving reasons for their decisions and illustrating by the aid of living and dead "subjects" the class and quality of product required by the markets, were well calculated to afford helpful information to those interested, while the words and works of Professors Gilbert and Graham, and Mr. and Mrs. Yuill and Mrs. Gilbert, illustrated on the platform by practical demonstrations in feeding to a finish, killing, dressing and preparing poultry for the home market and for export, were intensely interesting and instructive, and should prove profitable to all who availed themselves of the information and advice given.

While the exceeding usefulness of the winter show under the direction of practical men is fully conceded on all hands, it must be apparent to all who have attended, that in order to carry out its objects successfully and satisfactorily the one great need is a suitable building in which to hold it, where visitors can be comfortable, where the animals can be seen and shown to advantage, and



SIDES OF TAMWORTH BACON HOGS AT ONT. PROVINCIAL FAT STOCK AND DAIRY SHOW, 1899. The center side is excessively fat.

in these young cattle, and during the past year, instead of the bulk of the trade going to the United States, it has been kept within our own boundary, 25,000 stockers having this year been shipped to the ranches of the west, and only 10,000 to the United States. Mr. McKellar argues in favor of the dealer in stockers on the following bases: Average purchase price of yearlings in Manitoba, \$16; freight to the ranches, \$1 per head; care on ranch, at \$2.50 per head for two and one-half years, \$6.25; and interest on first cost at 6%, for two and a half years, \$2.50, making the total cost of the steer at three and a half years old, \$25.75, when its market value should be from \$40 to \$50, leaving a nice profit on the transaction. The loss on these cattle sent to the ranches is not over 1 or 2%, whereas the loss of calves dropped on the ranches often runs from 10% to 30%. Mr. McKellar claims that the Manitoba farmer can also make good money by selling his year-olds at \$16 per head, and that the stable accommodation and feed that would be required to carry these cattle through for two and a half years to finish them for beef could be better utilized by increasing the number of cows, and utilizing their product for dairying, which industry is rapidly taking a profitable and permanent place in Manitoba. Double the number of cows could thus be kept, making dairying more profitable, as cream separators of the larger type could then be more profitably utilized: the calves raised on skim milk would be ready to turn off in the spring of each year, thus making a steady revenue. Of course, the farmer who has the accommodation, the feed, the capital, and the quality of stock, stands just as good a chance of making a good profit by carrying through his own stockers as the speculator, and with the very apparent shortage of cattle on this continent at the present time, there is no doubt but that the price for good quality of beef cattle will range high for some years to come.

where the dressed carcass and poultry competition, which is bound to increase, can be properly accommodated. This is a fact that cannot be faced too soon if Canada is to hold its place of prominence in this line of work on this continent, for the gigantic preparations now being made for the prosecution of similar work in the United States will, unless we bestir ourselves, so overshadow our shows as to be discouraging to our people. We may not hope to cope with our neighbors in vastness of display, but, with *quality* as our motto, we may face the world, and if we are to do so successfully, liberal things must be devised for the encouragement of our live-stock industry, which is, and must continue to be, the mainstay of the Dominion. We can conceive of no other way in which the Governments can more wisely apply a reasonable amount of public funds than in promoting such an enterprise, and if its best success involves fixing the show at some point, local jealousies should not be allowed to hinder a work which is of such vital interest to our common country.

Farmers' Institutes.

While the attendance at Farmers' Institute meetings is reported to be increasing year by year, yet in some districts there are too many farmers, and especially those who are not making the greatest success of their business, who stay away, either from lack of time or a lack of appreciation of the information presented and discussed by the delegates and local members. As a rule the men attending are already fairly good farmers, who realize the value of knowledge, not simply to be listened to, but appropriated and practiced as occasions present themselves in their farming operations. It is frequently the case that many of those attending, especially in the afternoon meetings, are the older men, leaving the young fellows home to do the chores and come in the evening. In some instances this arrangement may appear necessary, but we have no doubt the Institute system would work more valuable results were the younger men to attend the day meetings, when the subjects and discussions are of more practical value than in the evenings. It is the younger men who are most likely to appropriate new ideas, and without results of this kind the work of the Institute is largely lost. The men chosen to address the meetings are selected because of their practical knowledge of their subjects and their ability to express their views clearly, so that persons who go to a meeting in the spirit of one anxious to gather some helpful points, and also to give what information they can to help others, will receive much benefit from the meeting, while, on the other hand, if the object is to "heckle" the speakers with a view to corner or put them to ridicule, not only will their own time and trouble be lost, but in this way no little harm is done. Let it be remembered that while a speaker may advance views widely different from those held by many old-timers, or he may refer favorably to a class or breed of stock men in the audience can see no good in from their view, the whole business of agriculture will not be endangered if that delegate is not publicly put down as a crank or a book farmer. There are always two sides to a question, and it is well to remember that either side has its truth and redeeming virtues. It is a good plan to give some special thought, beforehand, to the subject to be presented in order to contribute something of value to the discussion. While delegates usually go before their audiences well prepared, there are great differences in the manner of presenting their subjects. To reach an audience successfully, a certain amount of tact must be exercised by a speaker so as to accomplish the greatest good. Our observation while attending meetings leads us to more highly appreciate the delegate who does not attempt to tell all there is about a subject, sometimes exhausting both subject and audience, but who handles his address so as to arouse discussion among his auditors. It is not well to assume to be very wise, or a blunt and telling rebuke is almost sure to follow, which, too, may have the sympathy of the audience, thus lessening the chances of the speaker leaving with his hearers the valuable points he wishes to impress. The speaker is fortunate who can illustrate a point with an appropriate anecdote, not only to make clear the idea, but to maintain the attention and sympathy as well. A prosy speaker in a warm room is likely to soon have a drowsy audience, who may as well be home as at the meeting for all they are taking in. Short, pithy addresses, the outcome of actual experience, intermingled with fresh, apt anecdotes, and delivered so as to arouse discussion, are what we believe to accomplish the maximum good to the hearers, and therefore to the calling of agriculture.

Galvanized Nails.

Among the durability of wire nails, the *American Manufacturer* publishes a letter from one of the largest nail manufacturers in the States, in which it is stated that the process of galvanizing nails after they are cut has now been perfected, and that nails so galvanized are much more durable than either steel or iron cut nails, and are not so strongly resented, and especially for shipping in, or where exposed to weather and variation of climate. It is pointed out, however, that it is very essential that the nails be galvanized *after* they are cut.

Better than War News.

SIR,—When the beautiful Christmas number of the FARMER'S ADVOCATE came to hand I was reading the war news. Gladly I laid aside that which is so cruel and inhumane for the peaceful, happy themes and scenes of agriculture. Oh, when will the sword and spear be beaten into the plowshare and pruning hook, and men learn war no more? Agriculture is more interesting to me than any tale or romance, for it has to do with the real things of God that lie all around us. We help nature, and in return nature helps us. Every farmer who reads this really fine edition of the ADVOCATE will have an increased love and pride in his calling. The effect will be to draw out the best that is in him and his acres; and those who are not farmers may read with pleasure about what the Hon. Sidney Fisher calls the great Canadian farm which stretches from the Atlantic to the Pacific.

That chapter and scene of the old log-cabin

follow the time-honored occupation of tilling the soil. It is right and proper that women should take an interest in the affairs of the farm, the working of which is somewhat different from other occupations, in that all have to work for the common good. The wife and children are as essential as the man himself; very often they work quite as hard, and if there be loss or failure they share it alike.

Jean Blewett lifts the curtain and gives us a peep at another side of the question. As Samantha says, all questions have two sides, some have twenty. Farm life is one of the many-sided ones. The wife's legal right to do as she pleases with her share of the joint earnings, which power she has not at present; the husband owns everything, and can will her share as well as his own to suit himself. The daughter's share as compared with the son's. These are some of the many sides to this question which ought to be cured.

There are many other good things in this Christmas number of the ADVOCATE, but I must not take up any more space. I'm glad I have one of my own to show my friends, and I wish that every farm home in the land had one also.

MRS. H. ELFORD.

Prof. Robertson's Prizes.

ONE HUNDRED DOLLARS PRIZE MONEY PAID—TEN THOUSAND DOLLARS MORE PROMISED FOR SELECTION OF SEED GRAIN.

It will be remembered that in the FARMER'S ADVOCATE for October 5th last, Prof. Robertson, Commissioner of Agriculture and Dairying, Ottawa, personally offered one hundred dollars in twenty-four prizes to boys and girls for the one hundred heads of wheat and oats bearing the largest number of seeds. The farmers' boys and girls took up the matter with interest, and all the Provinces were represented in the competition. British Columbia took first prize for both wheat and oats. The prizes went to the Provinces in the following order: Ontario, 13; British Columbia, 3; Northwest Territories, 2; Manitoba, 2; New Brunswick, 2; Nova Scotia, 1; Quebec, 1. Many very superior samples of grain were submitted, and some of the competitors showed much skill and taste in arranging the heads daintily and in packing them carefully. However, some lots arrived in poor coverings and a generally dilapidated condition. The list of prizewinners is as follows:—

OATS.

- 1st—Albert Norton, Salt Spring Island, B. C.
- 2nd—Henry Lennox, Magnetawan, Ont.
- 3rd—R. E. McLennan, Beaver Point, B. C.
- 4th—A. H. Bourne, Innisfail, Alberta.
- 5th—Alex. Monroe, Trout Creek, Ont.
- 6th—Alice Westney, Pickering, Ont.
- 7th—Walter Gordon, Collina, N. B.
- 8th—Andrina Farquharson.
- 9th—Alex. Chisholm, N. Intervale.
- 10th—G. W. Jeffrey, Brooklin, Ont.
- 11th—Nellie McBeath, North Bay, Ont.
- 12th—Florence Hay, Northgate, Man.

WHEAT.

- 1st—Donald and David Graham, Spallumcheen, B. C.
- 2nd—G. H. Bayliss, Wetaskiwin, N.-W. T.
- 3rd—Pearl Heinrichs, Headford, Ont.
- 4th—Curnel Carr, Woodford, Ont.
- 5th—Fred C. Montgomery, Meaford, Ont.
- 6th—Annie Davis, Avening, Ont.
- 7th—Charlotte St. George, Tramore, Ont.
- 8th—Jessie Coombs, Brandon, Man.
- 9th—Thos. Rowen, Glen Almond, Que.
- 10th—Leverett Shaw, Avondale, N. B.
- 11th—Howard Zavitz, Coldstream, Ont.
- 12th—Andrina Farquharson, Woodford, Ont.

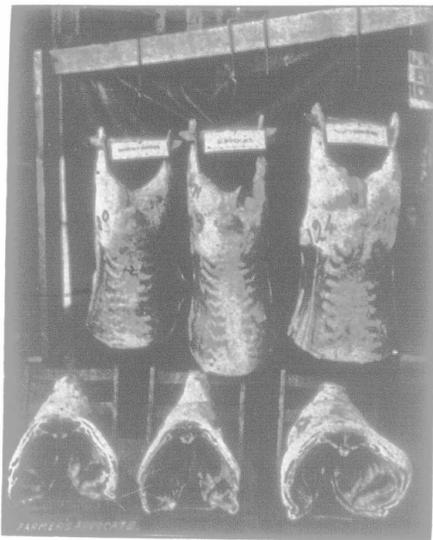
Prof. Robertson says that a generous friend, who has the best interests of the farmers' boys and girls and of the agricultural community closely at heart, has made it possible for him to offer cash prizes to the amount of ten thousand dollars for a competition in the selection of seed grain in all the Provinces during the next three years. Full particulars regarding this splendid encouragement to farmers' boys and girls will be published at an early date.

QUESTIONS AND ANSWERS.

Veterinary.
NETTLE RASH.

N. J. E., Russell Co., Ont.:—"I have a heavy mare; nursed a colt this summer. I weaned her foal about first October, and commenced plowing with her. After second day her legs swelled up while standing in the stable at night, but went down again when working. The skin has become very dry, and is rough and lumpy. I feed her good clover and timothy hay, and one gallon of oats three times a day. She eats well, and is lively, but is getting thin in flesh, and hair is dry and stands up. Age four years. What can I do for her?"

[Your mare has nettle rash, due to imperfect digestion. Give her a physic of raw linseed oil, one quart; spirits turpentine, two ounces, in the morning before any food is allowed. Withhold all solid food for twenty-four hours previous to giving physic, and until it operates freely on the bowels; allowing only bran mashes, and return to solid food gradually. Exercise in twenty-four hours if the oil does not physic freely, after which give one-half ounce hyposulphite of soda dissolved in hot water and mixed in feed twice daily for two weeks, and one of the following powders in feed three times daily: Bicarbonate of soda, 1 ounce; powd. gentian, 1 ounce; powd. nitrate of potash, 1 ounce; powd. nux vomica, 1/2 ounce. Divide into twelve doses. Do not purge if she is in foal. Feed bran with her oats. Boiled roots, oats, etc., will be best suited for her until she gets all her teeth.]



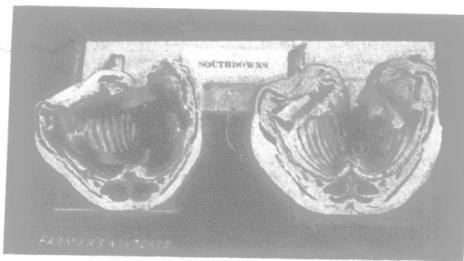
DRESSED CARCASSES OF DORSET HORN, SUFFOLK AND SOUTHDOWN AT ONT. PROVINCIAL FAT STOCK AND DAIRY SHOW, 1899.

Southdown carcass excessively fat.

times—how true to life. The dear old grandmother with her white-frilled cap, the bed with its gay patchworked quilt, and the little trundle-bed where so many little tired ones have rested, and the ever-present spinning-wheel in the corner; when the maple trees supplied our sweets, and our apple sauce was made from pumpkins; when we didn't need a daily paper, for we knew everybody's business and everybody knew ours, and we thought it no wrong either.

And that leaf from the early days of the Red River settlement. It seems a long way from those times to the beautiful homesteads, comfortable out-buildings, and fine stock we see in this number, but it speaks volumes for the capabilities of this "Land of the Maple Leaf," or "Lady of the Snows," and the industry and intelligence of our Canadian people.

I'm glad that with the rest you have given us the pictures and account of the herds and dairying



CROSS SECTIONS OF SOUTHDOWN CARCASSES AT ONT. PROVINCIAL FAT STOCK SHOW.

The leaner carcass won 1st award. The other excessively fat.

of Mrs. E. M. Jones. She has done a good work, not alone in showing what can be done with cows, but in clearing the way for other women; what one has done another may do. There was a time when farmers' wives were afraid to attempt anything in what was considered man's department. But Mrs. Jones has shown that women can be interested and successful in outside affairs, and at the same time keep her home-making and womanly qualities.

Then, we have that good article on "Woman's Influence on the Farm." Dear me, one can't begin to reckon up all the influence that comes from a good woman on the farm, or anywhere else, for that matter. It is said that the best crop the farm raised is its girls and boys (now, I suppose I should say boys and girls to be orthodox); but I put girls first because I think they ought to be first for reasons which I can't stop to tell, and it is in the raising of this crop where the women's influence is seen. A large percentage of the world's workers, let it be in brain or brawn, comes from the homes of those who,

INDIGESTION IN CALF.

L. E., Provenches Co., Que.:—"I have a calf that bloats, and chews the wall and manger. When let out for exercise he sweats behind the shoulder. He is seven months old, and I feed him hay, porridge, and the milk of one cow. He is growing well, but is poor. What will cure him?"

[The calf has indigestion, probably from eating and drinking too fast, or perhaps from the porridge he receives. Give him a teacupful of lime water in his milk at each feed, and one of the following powders three times daily mixed in such feed as cut hay, pulped roots, ground oats, and bran, with a liberal amount of ground oil cake: Bicarbonate of soda, three ounces; powdered gentian, two ounces; powdered ginger, two ounces; powdered capsicum, half ounce; nux vomica, half ounce; aniseed powdered, one ounce. All well mixed, and divide into thirty-six powders. Right use of this will put the calf in good condition.]

Miscellaneous.

BOOK ON RUNNING A STEAM ENGINE.

X. Z. Z., Oakland, Man.:—"Where can I get a book on how to drive or run an agricultural steam engine?"

[Roper's Handbook of Modern Steam Fire Engines, \$3.00; Roper's Handbook of Land and Marine Engines, \$3.00; may be had through this office.]

BARLEY FOR MILCH COWS—PULPING ROOTS—STEAM BOILER—GASOLINE ENGINE.

SUBSCRIBER, Perth Co., Ont.:—"1. Would you advise feeding barley to milch cows? Has it a tendency to dry up the flow of milk? 2. Would you advise pulping turnips for each meal, or just once a day, as they are mixed with cut straw? 3. Would you advise a person who keeps from forty to fifty hogs to buy a steam boiler such as is advertised in your paper? What kind would you recommend? 4. Would you advise a farmer to buy a six-horse power gasoline engine for his own use?"

[1. Barley alone is not the most suitable grain food for cows, not on the ground of its composition, but for its constipating properties. Mixed with bran half and half, or with a like proportion of oats, it answers well. It is also an excellent grain to feed along with a heavy root ration, as it counteracts the laxative influence. Barley, like all other grain, should be finely ground.

2. In our practice we prefer pulping once a day, as it saves time and renders the cut straw more palatable when mixed some hours before feeding.

3. It is generally conceded by those who have made economic pork production a careful study that in cold weather it pays to feed warm food (steamed or otherwise), since cold food taken into the body demands outlay of food to raise the temperature to a normal height, and it is found heating is most cheaply done outside the animal body. Since we have not personally tested the various boilers on the market, we do not care to advise as to the particular sort to buy. We would say write for circulars describing each of the kinds advertised, or consult with those using them, and make a selection according to their merits. We believe every feed boiler advertised in our columns is a good one.

4. We do not care to assume the responsibility of advising in a matter of this sort. Whether it would be wise or not to purchase a gasoline engine depends upon the work required to be done and the various means at one's disposal for doing it. We would consider it wise to enquire around among good farmers doing the same sort of work as to the powers found most satisfactory and economical. The gasoline engine is undoubtedly a coming power on the farm, and is already finding favor, but at the same time "there are others."]

KEROSENE EMULSION FOR LICE.

A. J. McG., Huron Co., Ont.:—"I see in the ADVOCATE of Nov. 20th, two or three farmers giving their experience on feeding cattle, and also putting kerosene emulsion on the cattle for killing vermin. I would like to know how the emulsion is mixed, or do they buy it ready mixed, as I would like to try it on my cattle? Kindly let me know in the ADVOCATE.

[See reply to J. F. H., Simcoe Co., in next issue.]

Annual Poultry Show.

The annual poultry show, held by the Manitoba Poultry Association, is this year to be held in Winnipeg, on February 12th to 16th. E. R. Collier, having resigned the position of secretary, has been succeeded by C. N. Wise, to whom all communications should be addressed.

Chatty Stock Letter from Chicago.

FROM OUR OWN CORRESPONDENT.

Following table shows current and comparative live stock prices:

	Extreme prices now.	Top Prices		
		Two weeks ago.	1898	1897
Beef cattle.				
1500 lbs. up.....	\$5 60 to 7 30	\$7 40	\$5 75	\$5 40
1350 to 1500 lbs.....	4 70 to 8 25	7 40	5 95	5 50
1200 to 1350 lbs.....	4 20 to 6 90	7 00	5 85	5 40
1050 to 1200 lbs.....	4 00 to 6 60	6 50	5 75	5 50
900 to 1050 lbs.....	3 75 to 6 00	6 00	5 50	5 00
Fed Westerns.....	4 25 to 6 40	6 45	5 75	5 10
Hogs.				
Mixed.....	3 85 to 4 25	4 15	3 45	3 57
Heavy.....	3 80 to 4 25	4 15	3 50	3 55
Light.....	3 90 to 4 17 1/2	4 15	3 40	3 55
Pigs.....	3 25 to 4 10	4 05	3 50	3 50
Sheep.				
Natives.....	2 00 to 4 60	4 50	4 50	5 00
Westerns.....	2 40 to 4 60	4 55	4 20	4 40
Lambs.....	4 00 to 5 75	5 60	5 60	6 40

The general cattle market has been in very good condition on fat, heavy kinds, and in bad shape on the low-grade, half-finished kinds. There have been a good many low-grade light cattle, with not enough breeding to do for feeders, with "just a skim of kill" to them, as a man described their low-fleshed condition. The Christmas cattle at \$8.25 were the highest since 1882-3.

There will be about as many lambs fed in Colorado as usual after all. One of the heaviest lamb feeders at Ft. Collins, Colorado, was here feeling the pulse of the situation. Mr. Drake says that Colorado men were backward about putting in their feeding lambs this year, but recent liberal purchases will bring the total on feed close up to last year's figures. Some are buying yet, and it is impossible to tell what the number will reach. Prices paid for New Mexican lambs will average a little less than a year ago. Hay is quite abundant, and is now worth about \$3.50 per ton. Many western-bred lambs will be fed in Colorado this winter. The railroads have compromised some and the rate, with freight paid to the river, will stand the sheep feeder about \$10 per car more than a year ago. The bulk of the Mexican lambs will be ready for market about May, and not many will come before the middle of February.



DRESSED CARCASSES OF MUTTON AT THE ONTARIO PROVINCIAL FAT STOCK AND DAIRY SHOW, 1899.

The very little pigs sold extremely high a while ago, largely on account of the demand for fancy little roasters. The big prices drew an unusually large number of them to all markets, and the result was a break in prices the past week of 40c. to 60c. from the recent high point. These little roasters have, therefore, been the cause of not a few country shippers getting badly singed.

The International Live Stock Exposition people have decided to have classes for range cattle. The scope of the big show is widening.

Comment on the Christmas Farmer's Advocate.

DELIGHTED WITH IT.

Geo. Crawford, Simcoe Co., Ont.:—"We received the Christmas number on Christmas day, and are all greatly delighted with it. I am trying to get one or two new subscribers. Wishing you the compliments of the season."

"SIMPLY MAGNIFICENT."

A. Stewart, Ailsa Craig, Ont.:—"Received the Christmas number of FARMER'S ADVOCATE last Saturday, and consider it simply magnificent and strictly up-to-date in every particular."

EXCELLENT.

J. Cavers, Halton Co., Ont.:—"Issue for the 20th inst. is now to hand. It is especially fine. My congratulations on its excellence."

CONGRATULATIONS.

D. Thom, Manager Thom Implement Works, Watford, Ont.:—"Christmas number of your paper just come to hand, and allow me to congratulate you; a most creditable Canadian production. May your enterprise be amply rewarded."

WORTH A YEAR'S SUBSCRIPTION.

R. H. Harding, Thorndale, Ont.:—"Christmas number of FARMER'S ADVOCATE to hand. I would not be without it for the yearly subscription. To use the very common every-day expression, I would say it's a cracker-jack."

The Christmas Number and Agricultural Education.

BY MR. JOHN DEARNESS, VICE-PRINCIPAL, LONDON, ONTARIO, NORMAL SCHOOL.

I have just been spending a pleasant hour in the beautiful picture gallery of Canadian farms with which you have played the role of Santa Claus to your numerous readers. To use the sentiment of Mr. Robert Elliott's ringing verse, you demonstrate that the founts of honor, wealth and fame have flowed to the touch of a goodly number of our toil-ing pioneers. These photographs of lordly herds in rich pasture or shady grove, backed by ample barns and handsome dwellings, indicate that enterprising stockmen have found a Klondyke in every Canadian Province.

Amidst such profusion of illustrated reading matter I fear that two noteworthy articles on agricultural education by Vice-Principal H. S. MacLean, Winnipeg, and Prof. C. C. James, Toronto, may escape the attention they deserve. No one in Manitoba can speak with more authority or experience on this important subject than the former, while Prof. James stands similarly first in Ontario. Both writers practically ask the same two questions: Should agriculture be taught in the schools? If so, how? The first question is answered briefly, and, of course, affirmatively; indeed, it is now happily beginning to pass out of the region of debate. As it reaches settlement the second will demand increasing attention. Both writers are clear on the point that the schoolroom is not the place to teach the art of agriculture; both are equally clear and emphatic that the elements of the sciences upon which agriculture is founded can and should be taught, and that in a simple and practical manner.

Mr. MacLean strikes the true note when he says that agriculture should be taught, not to make farmers especially, but for the broad general culture it is capable of affording. The pupil's life is to be happier, richer and better for learning to open and read the book of nature. His premises lead to the conclusion that the town child needs to be taught this subject quite as much as if not more than the country child.

When the cultural value of this nature-study which lies at the foundation of scientific agriculture is rightly understood and generally appreciated, it will be given a place on the curricula of all public and high schools just as surely as reading, writing, and arithmetic. The satisfaction with which its advocates contemplate such a result is enhanced by the truth contained in Prof. James' closing sentence, "The progress of agriculture means the progress of every other industry, and the improvement of the whole people."

Seriously, I believe that a school trustee would be doing no small service to the cause of agriculture by placing a copy of the Christmas ADVOCATE in his schoolroom, if only for perusal by the larger pupils during noon hours of stormy days. Doubtless in many a section there is some subscriber needing only the suggestion to devote his copy to such use after he is done with it.

Valuable Matter Held Over.

Owing to the tax upon our space in this issue, by the numerous reports of conventions and shows, it was necessary to hold over a large number of useful questions and answers, as well as several seasonable articles, that may be looked for in Jan. 20th issue.

The first American horses taken to the Philippines did not take kindly to the native hay, and it became a serious problem how to sustain the horses. One of the troopers, as an experiment, poured molasses, diluted with water, on the native hay, and his horse consumed the ration with great relish. It wastested in other cases and worked so well that molasses, it is now said, forms a part of the rations for all the American horses in the Philippines.

C. BELL, Killarney, Man., Dec. 22, '99:—"I like the paper very much, and hope it will continue to be prosperous."

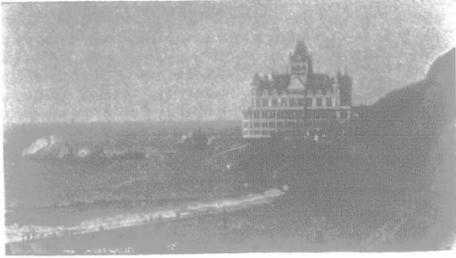
WM. SPENCE, Halton Co., Ont.:—"Have received the Christmas number of the ADVOCATE. Think it fine—the best yet."



Travelling Notes.

SAN FRANCISCO.

The scenery in all these far-off regions is so grand, so overpowering, that the city sights seem to pale into insignificance. In spite of broad and handsome streets and palatial buildings, it is the scenery and ever the scenery. There are so many delightful drives, so many wonderful places to be seen, that it is difficult to know where to begin and quite as difficult to know when to leave off. One charming excursion is to the Cliff House, of which the illustration here given is very good. It lies on the western shore of the city, at the south head of the Golden Gate, and is built like an old French chateau of the 17th century. There is an enclosed balcony all round the building, from which one can see to perfection the harbor and shipping. The elevator takes you up to the highest tower, where you can lunch and enjoy such a sea view as one can scarce imagine. You can sit on the veranda and watch the sea lions basking in the sun and swimming round the rocks, and on a clear day one can see well the Farallone Islands 26 miles out. It is of interest to know that the largest of these



Islands (nearly 1 mile in diameter) has a lighthouse station on it with a curious fog whistle or horn. A huge horn is inserted at its larger end, in one of the many caves on the Island and as the waves rush in to the aperture, they force the wind into the horn, thus making the whistle. Large herds of sea lions, sea gulls, etc., make their homes here. The Seal Rocks, seen in the picture, are about 300 miles from the Cliff House. Big seals, medium seals, and little seals, climbing up and down, hundreds of them, and they never cease barking day or night. They are protected by law, so we did not try to catch them! They are not peculiar to this spot, but are to be found in many parts along the Pacific Coast. One could sit for hours enjoying the antics of these seals, and especially when all the surroundings are of such beauty. On the bluffs above the Cliff House lie Sutro Heights. They are really the private grounds of the Hon. Adolph Sutro (of Sutro Tunnel fame), who also owns the Cliff House, but he has generously thrown the Heights open to the public. You enter by a gateway, on either side of which is a statue of a huge lion, and drive along Palm Avenue, bordered its entire length by palms



and flower-beds. Beautiful statues are everywhere. There is a lovely grove of trees and a fine gazebo lawn, where stands Mr. Sutro's residence. As can well be imagined, the aspect from these Heights is most magnificent and extends miles and miles. A fine view of the grounds can be had from the rotunda, reached through a long passageway between rows of trees. Then there are the Sutro pleasure grounds, with Fifth wheel, mystic maze and haunted swing, etc., all relics of the great Midwinter Fair. The Sutro is the finest super-bath house in the world. On the first floor is a collection of curiosities from all parts of the world, including "Boa Butler," the largest sea Boa known. It was a marvel of the rocks, but was one morning found dead on the beach. His weight was 100 lbs. Potted plants and trees are all over the place. On the main floor, an upper balcony is a restaurant, where you can get light lunch, coffee, etc., if desired. On this floor the bathing suits are obtained, also there are various amusements, photographs, etc.

The main tank is on the western side of the building and contains the sea water in its natural state and is four to ten feet deep. Other tanks are heated to various degrees. One is especially reserved for ladies and children. There are trapezes, swinging rings, spring boards and everything suitable for aquatic gymnastics. The baths are 400 long and 254 wide, and hold 1,804,962 gallons of water. These numbers have nearly taken our breath away, so we'll only just add that 100,000 feet of glass covers roof and sides, 270,000 cubic feet of concrete in building and tanks generally, 517 dressing rooms, besides club-rooms and shower-baths. Then, to wind up, there is a huge breakwater 400 feet long, 25 feet wide at top and 20 feet high, which protects the baths on the west from encroachments by the sea and another breakwater affords protection at the end. How is that for a bath? The London Sulphur Baths and other celebrated bathing resorts will have to look to their laurels.

Another wonderful place we visited was Mount Tamalpais, on the coast range, north-west of the city. You go by what is called the "Scenic Railway," and one can hardly deny the right which calls this "the grandest mountain railway ride in the world." This "Scenic Railway" is another of those engineering feats by which you can be taken to this mountain summit, 2,592 feet above the sea, by such easy travelling that you hardly feel you are moving. You steam easily and safely over eight miles of tortuous windings. At the Double Bowknot the track parallels itself five times. Steam traction locomotives of a special kind are used, the trip up taking about one hour and a half, and down, less than one hour. After about a mile along Blythedale Canyon, the ascent begins, and up you go, rising above tall redwoods, laurels, oaks, madronas, etc. When these are passed, the scenery gets more and more magnificent, and you also begin to catch sight of the celebrated hotel, "The Tavern of Tamalpais," about 210 feet below the bold turreted rock crowning the summit. The vast panorama expands and expands, and just as one thinks that surely this or that view is the grandest of all, another comes into sight, and we can only again feel that there is literally no limit to Nature, and that she has fresh surprises for us at every turn. It is at the "Double Bowknot" that the specially superb views commence, for here we first see the great ocean expanse, with mountain upon mountain rising over the horizon, and lower and lower sink San Francisco and heights which seemed enormous when we were on them. The sunrise from Mount Tamalpais is of such surpassing grandeur that many people stay over night at the "Tavern of Tamalpais" on purpose to behold the glorious sight. From the verandas of this cosy hotel one can take in these wonders of nature, comfortably seated in the time-honored rocker, and if you have time for any thought beyond the magnificence before you, you can give a sigh of thankfulness that you live in an age when everything is made so easy, so comfortable, for travellers, although, perhaps, somewhat of romance is lost. The moonlight on the ocean, the shadows in the valleys, and (on a dark night) the lights in the distance, San Francisco, Oakland, and Berkeley, San Rafael, the Farallones, the gigantic Mount Diablo (3,848 feet) form a scene which must stay forever in our memories.

We left this glorious California with regret, and by the time our readers see this account we shall be on our way to far Australia, so good bye to our beloved continent for a time.

UNCLE TOM'S DEPARTMENT.

MY DEAR NEPHEWS AND NIECES.—

As we should not only make good resolutions at the beginning of the new year, but also put them in practice, I must endeavor to practise what I preach. I shall therefore devote this letter to a business chat, for business should always precede pleasure. I am pleased to note that we have a large number of contributors to our puzzle column, and I think we should strive to make this a banner year, by raising our standard of excellence. It should be the aim of every contributor to aid in doing this, by sending only his best efforts and by introducing novel features when possible.

The cross-word and numerical enigma (though the latter may occasionally be varied so as to prove interesting), drop-letter and transposition puzzles are rather old-fashioned, and are much less attractive than many other forms. Good riddles, conundrums, anagrams, charades, squares, etc., are much more interesting. It must be remembered that all should be strictly original—a fact we have found difficult to impress upon some of our readers. A form of puzzle much admired nowadays is called the Palindrome; it consists of a phrase or part of a phrase which spells the same backwards and forwards, e. g., "Tis in a motto, nan, on an ottoman I sit." The "palindrome" is usually brought in in an appropriate verse, although it could as well be given in prose. The key given to the solver is usually every second letter, somewhat as follows: i-i-a-o-i-n-i, etc., the words being spaced as in ordinary printing. While puzzles in rhyme may sound more amusing, the author should not sacrifice sense to sound, as sometimes happens, some lines being so badly misleading to guessers, for the sake of a rhyme. If one has not the faculty of expressing one's ideas in tolerably good metre and rhythm, it is much better to give them in prose. Orthodox Latin metrical problems are scarcely in order, as they

can be so easily found in school arithmetic books; on the other hand, those of catchy nature will do much to sharpen the wits of solvers.

As our space is limited, it is advisable to arrange your work as compactly as possible—circumlocution is never a recommendation, while "Brevity is the soul of wit." I, too, must be brief, but I trust the above suggestions will be carried out, and that we may make 1900 an unprecedented success. Wishing you all a happy and prosperous New Year,

Your loving, UNCLE TOM.



The Dragon Tamers.

(Continued from page 39.)

John ran as hard as he could into the town, and found the mayor and corporation.

"There's a dragon in my dungeon," he said. "I've chained him up. Now come and help to get my baby away. But they all happened to have engagements for that evening; so they praised John's cleverness, and said they were quite content to leave the matter in his hands. So John went sadly home again, and told his wife some of the tale.

"Now," he said, "I'm going down. After I've been down you can go, and if you keep your head the boy will be all right."

So down went the blacksmith, and there was the dragon purring away with all his might to keep the baby quiet. "Hurry up, can't you?" he said. "I can't keep this noise up all night."

"I am very sorry, sir," said the blacksmith, "but all the shops are shut. The job must wait till the morning. And don't forget you've promised to take care of that baby. You'll find it a little wearing, I'm afraid."

The dragon had purred till he was out of breath, so now he stopped, and as soon as everything was quiet the baby thought everyone must have settled for the night, and that it was time to begin to scream. So it began.

"Oh, dear," said the dragon, "this is awful."

He patted the baby with his claw, but it screamed more than ever.

"And I am so tired, too," said the dragon. "I did so hope I should have had a good night." Then he tried to quiet the baby as if it had been a young dragon. But when he began to sing "Hush-a-by, dragon," the baby screamed more and more.

"I can't keep it quiet," said the dragon; and then suddenly he saw a woman sitting on the steps. "Here, I say," said he, "do you know anything about babies?"

"I do a little," said the mother.

"Then I wish you'd take this one, and let me get some sleep," said the dragon, yawning. "You can bring it back in the morning before the blacksmith comes."

So the mother picked up the baby and she and her husband went to bed happy, for they had caught the dragon and saved the baby.

Next day John went down and explained carefully to the dragon exactly how matters stood, and he got an iron gate with a grating to it and set it up at the foot of the steps. Then tourists came and paid twopence each to go down the steps and peep at the rusty dragon in the dungeon; and it was threepence extra for each party if the blacksmith let off colored fire to see it by, which, as the fire was extremely short, was twopence halfpenny clear profit every time. And the blacksmith's wife provided teas at ninepence a head, and altogether things grew brighter week by week. The baby, called Johnnie, began presently to grow up. He was great friends with Tina, the daughter of the whitesmith. She was never tired of hearing the story of how Johnnie, when he was a baby, had been minded by a real dragon.

At last one day the mayor and corporation, hunting the hare in their gold gowns, came screaming back to the town gates with the news that a lame, humpy giant, as big as a tin church, was coming over the marshes towards the town.

"We're lost," said the mayor. "I'd give a thousand pounds to anyone who could keep that giant out of the town. I know what he eats, by his teeth."

No one seemed to know what to do. But Johnnie and Tina were listening, and they ran off as fast as their feet would carry them. They ran through the forge, and down the dungeon steps, and knocked at the iron door.

"Who's there?" said the dragon.

"It's only us," said the children. And the dragon was so dull from having been alone for ten years that he said, "Come in, dears."

"You won't hurt us or breathe fire at us or anything?" asked Tina. And the dragon said, "Not for worlds." So they went in and talked to him, and told him what the weather was like outside, and what there was in the papers, and at last Johnnie said:

"There's a lame giant in the town. He wants you."
 "Does he?" said the dragon, showing his teeth.
 "If only I were out of this!"
 "If we let you loose you might manage to run away before he could catch you."
 "Yes, I might," answered the dragon, "but then again I mightn't."
 "Why, you'd never fight him?" said Tina.
 "No," said the dragon, "I'm all for peace, I am. You let me out and you'll see."
 So the children loosed the dragon, and he broke down the end of the dungeon and went out, only pausing at the forge door to get the blacksmith to rivet his wing. He met the lame giant at the gate of the town, and the giant banged on the dragon with his club as if he were banging an iron foundry, and the dragon behaved like a smelting works—all fire and smoke.

It was a fearful sight, and people watched it from a distance, falling off their legs with the shock of every bang, but always getting up to look again.

At last the dragon won, and the giant sneaked away across the marshes. The dragon, who was very tired, went home to sleep, announcing his intention of eating the town in the morning. He went back into his old dungeon because he was a stranger in the town, and did not know of any other respectable lodging. Then Tina and Johnnie went to the mayor and corporation and said: "The giant is settled. Please give us the thousand pounds reward." But the mayor said: "No, no, my boy. It is not you who have settled the giant, it is the dragon. I suppose you have chained him up again? When he comes to claim the reward he shall have it."

"He isn't chained up yet," said Johnnie. "Shall I send him to claim the reward?"

But the mayor said he need not trouble; and now he offered a thousand pounds to anyone who would get the dragon chained up again.

"I don't trust you," said Johnnie. "What did you do for my father when he chained up the dragon?"

But the people who were listening at the door interrupted, and said if Johnnie could fasten up the dragon again they would turn out the mayor and let Johnnie be mayor in his place. They had been dissatisfied with the mayor for some time, and thought they would like a change.

So Johnnie said, "Done," and off he went, hand-in-hand with Tina, and they called on all their little friends and said, "Will you help us to save the town?"

And all the children said, "Yes, of course we will. What fun!"

"Well, then," said Tina, "you must all bring your basins of bread and milk to the forge to-morrow at breakfast time."

All the children promised, and next morning Tina and Johnnie rolled the big washing tub down the winding stair.

"What's that noise?" asked the dragon.

"It's only a big giant breathing," said Tina; "he's gone by, now."

[TO BE CONTINUED.]

The Quest.

There once was a restless boy
 Who dwelt in a house by the sea,
 Where the water danced for joy
 And the winds were glad and free;
 But he said, "Good mother, oh! let me go;
 For the dullest place in the world, I know,
 Is this little brown house,
 This old brown house,
 Under the apple tree."
 "I will travel east and west;
 The loveliest homes I'll see;
 And when I have found the best,
 Dear mother, I'll come for thee.
 I'll come for thee in a year and a day,
 And joyful then we'll haste away
 From this little brown house,
 This old brown house,
 Under the apple tree."
 So he travelled here and there,
 But never content was he,
 Though he saw in lands most fair
 The costliest homes there be.
 He something missed from the sea or sky,
 Till he turned again with a wistful sigh,
 To the little brown house,
 The old brown house,
 Under the apple tree.
 Then the mother saw and smiled,
 While her heart grew glad and free,
 "Hast thou chosen a home, my child?
 Ah, where shall we dwell?" quoth she.
 And he said, "Sweet mother, from east to west,
 The loveliest home, and the dearest and best,
 Is a little brown house,
 An old brown house,
 Under an apple tree."

Our Coming Defenders.

"THE SOLDIERS THREE."

(With compliments to Mr. Rudyard Kipling.)

We'll be soldiers three—to the front we'll go
 To fight our enemies—lay them low;
 We'll fight like the bravest that ever was seen,
 For Briton's glory and Briton's Queen.

REFRAIN:

March, my brothers,
 Step out clean—
 We're soldiers three,
 And fight for the Queen!

We copy the words that big men talk—
 But we've got to practise our soldier walk,
 And keep in step to show we mean
 To fight the battles of England's Queen.

Repeat refrain—March, my brothers, etc.

Keep step, little brother, learn to march,
 Our steps must match. Now look out, Arch!
 Just pull him along, and don't look green—
 Remember we're soldiers, and fight for our Queen.

Repeat refrain—March, my brothers, etc.

LEUVOL

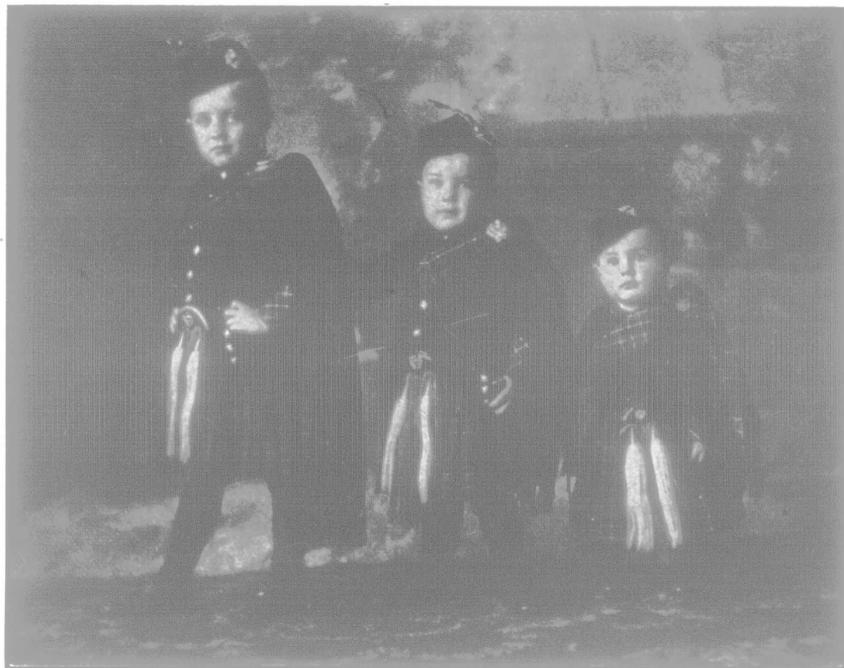
March on, young Canada, you're the stuff
 To show our foes when they've had enough!
 The Lion and her cubs (as ever has been)
 Will fight for glory, and Briton's Queen.

FELIX.

THE QUIET HOUR.

A Happy New Year.

"Our other years have slipped away, as slips the flower its sheath.
 Once more with hands held out we grasp a gift the Father sends,



OUR COMING DEFENDERS.

EDISON, ARCHIE AND LORNE MACQUARRIE, SAULT STE. MARIE, ONT.

And give Him thanks for length of days, for joy that comes with breath,
 For home and books and happy work, for children and for friends.
 What yet may wait of care or grief to-day we cannot tell.
 Another year, another start, another chance to do
 What lieth closest to our hand: God loves us; all is well.
 Disdaining fear, we greet the year, whose first white leaves are new."

My dear friends—for we are friends, are we not?—do you think the writing of this Quiet Hour is a hard and wearisome task, or a pleasure and a privilege? This is not the Puzzle Department—we leave that to Uncle Tom's able management—but I don't intend to solve that problem for you, not just now, at all events. However, it is certainly a pleasure to-day to be able to reach out "the right hand of fellowship" to so many good Canadians; wishing you, each one, happiness and prosperity through the coming year. But *happiness and prosperity* are words, and words have whatever meaning we choose to give them. For instance, there are plenty of young lads in this country who fancy they would be perfectly happy out in South Africa. On the other hand, many men out there probably think happiness lies at home. Happiness is not found in having all earthly desires satisfied. Take Solomon for an example. He had wealth, fame, peace, wisdom, etc. Was he happy? Read the book of Ecclesiastes and see how empty and wearisome life appeared to him. Try the experiment on a child. Give it everything it asks for, and it will soon be discontented and spoiled.

And yet it is not true that "Man never is, but always to be, blest." It is quite possible to be really happy now. The secret of happiness is love, for love brings joy and peace in its train.

"Still in loving, still in loving,
 More than being loved, is joy."

The word "happy" is very seldom used in the Bible, and is often rather startling when it is used. St. James says, "We count them happy which endure." St. Peter evidently agrees with him, for he says, "If ye suffer for righteousness sake, happy are ye." Then again, we read, "Happy is the man whom God correcteth."

In wishing you happiness during the coming year, I don't desire for you a life entirely free from troubles or difficulties. If you had no opportunity for exercising patience and endurance, you would soon cease to be "the backbone of the country." Isn't that the proper expression to use in describing farmers? You would lose your manly hardiness and become so limp and flabby that you could not stand against a storm yourself, much less support the weaker natures leaning upon you. Then take the word "prosperity." A farmer once found that his ground brought forth so plentifully that he had to pull down his barns and build greater, because he had no room to store his fruits and his goods. Surely he was a prosperous man? But wait! God calls him a fool. Why? Was it because he was rich? Abraham was rich, and he is called "the friend of God." Job was very rich, and God calls him "a perfect and an upright man." We are not left in doubt as to the justice of the title "Thou fool." His folly consisted in laying up treasure for himself instead of being rich towards God. He did not think riches were a means of doing good. He only thought of his own personal comfort, saying, "Soul, thou hast much goods laid up for many years; take thine ease, eat, drink, and be merry."

That was plainly very selfish, but how was it foolish? You would think a man very foolish if he put all his money into a bank which was on the verge of failure. It might break any day, it was certain to break before many years were over, and then he would be utterly ruined. It would be especially foolish if another bank were at hand; one that paid splendid dividends, and could not possibly fail. Well, that is just what this man did. All his treasure was stored in this world. Death was certain to come before very long, and then he must step out into another life—a ruined man! God said to him, "This night thy soul shall be required of thee," and he was bankrupt in a moment. All his hard-earned gains were snatched from him. Was he a prosperous man?

I do wish that your barns may not be big enough to hold your crops. God has promised that very kind of prosperity to those who obey the command, "Honor the Lord with thy substance, and with the first fruits of all thine increase." Are you doing that? Then listen: "So shall thy barns be filled with plenty." He has promised this very blessing to all who bring the tithes into His storehouse; saying, "I will open you the windows of heaven, and pour you out a blessing, that there shall not be room enough to receive it." Whether such a gift brings real prosperity or not depends on the way it is accepted and used. If a rich man lays up all his treasure on the earth he is a fool, undoubtedly. If riches harden his heart and make him selfish, then it is well for him if God in His mercy take them away.

The prosperity of the soul is of far more consequence than that of the body, and should be more carefully attended to. "Seek ye first the kingdom of God and His righteousness," that is *our* part—"and all these things shall be added unto you"—that is *God's* part. If we do our share He will do His, never fear.

Treasure laid up on the earth is not very safe, even while we are here to look after it. Moth and rust may corrupt it, thieves may steal it, or it may cease to give any real pleasure and satisfaction. Treasure laid up in heaven is perfectly safe. Every act of kindness is stored up in God's treasury, and He is responsible for both capital and interest. It may be so small that it is entirely forgotten by both giver and receiver; but He never forgets, and the interest He pays is far beyond anything earthly in the way of investment. He promises a hundred per cent. interest, and He never breaks His word. Happiness and prosperity are obtained by giving, far more than by receiving, even in this life. Some of the interest is paid at once.

"Not in having, or receiving, but in giving is there bliss; He who has no other pleasure ever may rejoice in this. Be it health, or be it leisure, be it skill we have to give; Still, in spending life for others, Christians only really live. What, in love we yield to others, by a charm we still retain, For the loved one's acquisition is the lover's double gain."

With what kind of coin does God pay back what is lent to Him? I cannot answer that question. He has many kinds in His treasury. What kind of reward do you wish for most? Do you love Him so heartily that your greatest reward would be to hear

Comment on the Christmas Farmer's Advocate.

A STEELING PRODUCTION.

The Globe, Toronto, Dec. 28:—"If the Christmas number may be taken as a fair indication of a journal's prosperity, the FARMER'S ADVOCATE of London is enjoying in large measure the success the labors of its managers deserve. It is in every way a creditable production, many-paged, profusely illustrated, ably written, and with an attractive and appropriate cover printed in colors. There are several special contributions from prominent agriculturists. Hon. Sydney Fisher writes on the agricultural situation and outlook for the Dominion; Senator Donald Ferguson deals with agriculture in the Maritime Provinces; Prof. Day, of the Ontario Agricultural College, exhibits the debit side, or what agriculture owes to science; Mr. Archibald Macneilage, editor of the Scottish Farmer, presents a view of the future of British agriculture. These are only a few of the leading articles, but enough

to show the sterling character of the FARMER'S ADVOCATE'S Christmas number."

MASTERLY AND CHEERING.

John Campbell, "Fairview Farm," Woodville, Ont., December 27th, 1899:—"Your Christmas FARMER'S ADVOCATE is certainly a treat to all admirers of good stock. Casting the eye carefully over the numerous excellent engravings, and reading over and over again the most interesting descriptions of many of Canada's noted herds and flocks, with the stirring accounts of the bold and successful operations of their owners, was a telling, substantial, and long-lasting addition to Christmas cheer. And not less enjoyable was the perusing of the masterly and instructive articles from able pens in the east and in the west of our great Dominion, from beyond the sea and our southern border, setting forth with a far-reaching ken the ever-increasing importance of farming operations. To have such a choice collection of good things placed before us by D. D.'s, ministers of agriculture, leading professors, secretaries of all-alive associations, and many others, with last, but ever best, the ladies' touching pen pictures of home life so daintily sketched, is a feast deserving of the heartiest appreciation."

TRIBUTE FROM AN ENTOMOLOGIST.

Mr. Chas. J. S. Bethune, editor of the Canadian Entomologist, writes:—"John Weld, Esq., Manager of the William Weld Co.: Dear Sir,—I beg to thank you very heartily for sending me a copy of the Christmas FARMER'S ADVOCATE. It is certainly a remarkable publication, and reflects the utmost credit upon all concerned in its production. The cover, printed in colors, with its beautiful and appropriate picture and loyal design, the eighty pages of excellent typographical work, and the wealth and beauty of the illustrations, are products of the printer's art which cannot easily be surpassed. When the contents are inspected, no one can fail to be pleased with the variety and interest of the papers, a large number of which have been contributed by leading Canadian writers of the day. Every intelligent farmer who reads this number will assuredly obtain from it much useful information on a variety of subjects of importance to himself and his household, and will find it of value for reference for a long time to come. When I look back at the ADVOCATE as I first remember it, when it was a very modest publication indeed, I am filled with admiration at what has been accomplished, and I feel that you and your colleagues may justly be congratulated on the great success you have achieved."

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J. E. SMITH, IMPORTER AND BREEDER. HAS FOR SALE: CLYDESDALES—Bargains in Stallions and Mares, all ages. SHORTHORNS—Choice Bulls, Cows and Heifers. HEREFORDS—17 Heifers. All animals registered in their respective herd books. Everything for sale except the stock bulls, Lord Stanley 2nd and Golden Measure. If notified, visitors will be met at the station. Come and see the stock. Satisfaction guaranteed. Write or wire J. E. SMITH, Smithfield Ave., BRANDON, P. O. Box 274. Telephone 4.

GOSSIP BULLS FOR THE N.-W. TERRITORIES. The following memorandum has been issued by the Department of Agriculture, Regina, in reference to the transportation of pure-bred bulls from Manitoba and Ontario into the Territories: "Importations of pure-bred bulls, under Government auspices, will be carried on under an arrangement with the Canadian Pacific Railway Company, whereby the bulls, (which must be delivered at some convenient point on the said railway in Manitoba or Ontario) are gathered and forwarded by carload lots to the West, in charge of a reliable man, and distributed at the various destinations. The Government and Railway Company defray all expenses over and above the sum of \$5.00 per head, which must be deposited by the applicant. As soon as parties are in a position to make application to the Department for the transportation of stock, blank forms will be supplied them, which are to be filled out, verified by statutory declaration and returned to this Department, accompanied by \$5.00. Stockmen availing themselves of this offer will have to make their own arrangements through friends, or otherwise, regarding the purchase of their bulls. If, however, a person is selected by a sufficient number of applicants to purchase a full carload of bulls for them, he will be furnished free transportation to Manitoba or Ontario and return in charge of the car. His incidental expenses, up to the time of taking charge of the stock in the east, must be defrayed by the parties he represents. If intending purchasers are unable to make either of the above arrangements, they will, upon application to the Department, be placed in communication with some reliable person nominated by the respective Live Stock Associations in Manitoba or Ontario, who will purchase for them what stock they require for a small commission."

It is not necessary for applicants for transportation of stock, under this arrangement, to make their purchases in the east prior to filing their applications with the Department. If anyone desires to obtain the reduced rate in question, he should file his application at once, and he can then make his arrangements regarding the purchase of his stock in the east at his convenience. As the shipment will not take place until May, 1900, there will be ample time to complete such arrangements. As above indicated, only male stock can be accepted for transportation under the arrangement outlined, and no more than two head can be shipped to any one applicant at the \$5.00 rate. All stock will be accepted for transportation at owner's risk only, but every precaution will be taken to ensure safe delivery. As the number of bulls, which it is intended to bring into the Territories during the coming spring under the foregoing scheme, is at present limited, applications will be considered in this Department on a basis of priority. (Signed) CHAS. W. PETERSON, Deputy Commissioner, Regina.

Spratt's Patent, Limited, of 248 E. 56th St., N. Y., represented in Canada by E. Hughes & Co., Montreal; J. A. Simmers, Toronto, and John S. Pearce, London, advertise a full line of dog foods, washes and medicines manufactured by them. Prior to May, 1899, this New York firm occasionally took charge of live stock importations into America, but owing to unavoidable delays in getting stock entrusted to them to show in time, they have abandoned this line of business, and in doing so recommend customers to entrust their property to regular express or forwarding companies.

Farmers' Mutual Hall Insurance.—The annual meeting of the Manitoba Farmers' Mutual Hall Insurance Company was held in their office, McIntyre Block, on December 18th, and was largely attended by farmers delegated from different sections of Manitoba and the Northwest Territories, representing by proxy policyholders not able to attend in person. The Directors submitted to the meeting the following official statement: Assets, \$7,988.69; liabilities, \$17,628.07. The amount of insurance written and contained in 3,909 policies is \$3,339,564.3 taken in Manitoba and the Northwest Territories. The agreement notes contained in the application for 5% amount to \$166,978.21, on which an assessment was called, allowing 25% discount, making a total assessment due of \$125,233.67, of which \$51,175 has been paid in cash, and \$8,407 has been credited against policyholders who sustained loss, and whose claims were adjusted, the total amount paid to cover losses by hail amounting to \$31,824.25. The rate of assessment fixed, considering the 25% discount, was shown to be 3%. Commissions paid to agents the past year, \$32,970.77, and other large expenditures, such as organization, Government investigation, etc., was explained, and the members were assured that these expenses would be very much lessened another year. The annual meeting elected the following farmers as Directors for the ensuing year: Messrs. E. Townsend, Boissevain; E. N. Hopkins, Moose Jaw; D. W. McCuaig, McDonald, representing Portage La Prairie District; E. T. Baines, Hamiota. Mr. E. Townsend, of Boissevain, was elected President, and informed us that the Directors will hold a meeting early in January, when the by-laws of the Company will be carefully revised, and the Company's future programme outlined. In the meantime collections of outstanding claims would be made, and a refund given to all paid up policyholders. Mr. Townsend said that it was the intention of the new Directors to conduct the business in the interests of the policyholders, with the least possible expense, and now that the Directorate was composed of well-known farmers representing different districts of Manitoba and the Northwest Territories, he felt that the public would have renewed confidence.

Live Stock Breeders' Annual Meetings. Mr. Hy. Wade, Secretary and Live Stock Registrar, Parliament Buildings, Toronto, Ont., advises us that the annual meetings of the various breeders' organizations have been arranged as follows: Tuesday, Feb. 4th—Dominion Ayrshire Breeders' Association, at 2 p. m. Tuesday, Feb. 4th—Dominion Shorthorn Directors, 7:30 p. m., Albion Hotel. Wednesday, Feb. 7th—Dominion Shorthorn Breeders' Association, at 11 a. m. and 2 p. m. Wednesday, Feb. 7th—Hackney Horse Society, 8 p. m., Albion Hotel. Thursday, Feb. 8th—Shire Horse Association, 11 a. m., Albion Hotel. Thursday, Feb. 8th—Clyde-dale Horse Association, 2 p. m., Albion Hotel. Thursday, Feb. 8th—Dominion Horse Breeders' Association, 6 p. m., Albion Hotel.

"PASTEUR" Black-Leg Vaccine

THE original and genuine preventive vaccine remedy for Blackleg. Officially endorsed in all the cattle-raising States. Successfully used upon 1,500,000 head in the U. S. A. during the last 4 years. Write for official endorsements and testimonials from the largest and most prominent stock-raisers of the country. "Single" treatment vaccine for ordinary stock; "Double" treatment vaccine for choice herds. REGIS-TERED "BLACKLEGINE" TRADE-MARK. "Pasture" single treatment Blackleg Vaccine ready for use (no set of instruments required). No. 1 (10 head), \$1.50; No. 2 (20 head), \$2.50; No. 3 (50 head), \$6. Easily applied. No experience necessary. Pasteur Vaccine Co., W. J. Mitchell & Co., 65 Fifth Avenue, CHICAGO. WINNIPEG, MAN.

WINTER SPORTS Improved "Hyde Park" Hockey Skate. THE above is a cut of our Improved "Hyde Park" Hockey Skate which is unequalled, and is specially designed for hard and fast work. We also have the well-known Star Hockey Skates. In Hockey Goods: STICKS, PUCKS, PADS, KNICKERS, ETC., we have the best values in Canada. Send for our catalogue of WINTER SPORTING GOODS and see what we have to offer. We assure you our prices are right. THE HINGSTON SMITH ARMS CO'Y, 488 MAIN STREET, WINNIPEG.

NOTICES. Fleming's Seeds and Sheep Dip.—Messrs. Fleming & Sons, the well-known druggists of Brandon, are preparing for a large garden and seed business this year. They intend having a seed box of selected seeds, the most reliable for Manitoba and the Northwest, distributed amongst leading merchants in the Province and Territories, so that people can purchase Fleming's seeds in small quantities in their own towns. They will issue a handsome seed catalogue about the 1st of January, which will be sent to all who apply. Fleming's Sheep and Cattle Dip has been so successful in the West that arrangements are completed to have the dip sold in Eastern Canada as well, and Mr. J. A. Simmers, the well-known seedsman of Toronto, is eastern agent. Notable Dairy Exhibit.—Messrs. R. A. Lister & Co., of Montreal, made an excellent display of high-class dairy apparatus at the Ontario Provincial Fat Stock Show, London, Ont., December 12th to December 15th. In the stockmen's pavilion was shown a No. 4 Melotte cream separator at work, driven by a Northey gasoline engine, skimming most thoroughly 1,000 lbs. of milk per day, obtained during the dairy cow test; it was really a hand machine easily converted into a "power" separator, with a capacity of 700 lbs. to 750 lbs. per hour. The firm turn out a hand machine of still larger capacity, which is capable of handling the milk from 50 cows, and, it is said, can be worked quite easily by a young man. The special features in the construction of the "Melotte" are: Firstly, the suspended bowl, which is practically an inverted ball-bearing in principle, a marked advance, doing away with friction and assuring ease in running; secondly, all the gearing is cut by machinery, and is therefore perfectly accurate; this insures even running; thirdly, the lubrication is automatic, and all parts in motion run in an oil bath; the waste oil is conveyed to one receptacle, where it can be drawn off at leisure and used for other purposes; fourthly, no tin covers are used on the "Melotte," the milk and cream passes over a beautifully-enamelled casing, and is very easily and quickly cleaned. Ease of running is one of the most important features in a cream separator, for, if a hand machine is hard to turn, the speed is not kept uniform, and bad skimming is the result. It is claimed the "Melotte" takes 30 per cent. less power to work than any other separator. In the main machinery building there was shown a full line of Alexandra and Melotte separators, among them being a large power Alexandra capable of separating 3,000 lbs. per hour for factory use; rotary and centrifugal milk pumps, suitable either for driving by belt or steam turbine; a complete pasteurizing outfit for town milkmen, adapted for either milk or cream, with 1,000 lbs. per hour capacity. The milk or cream is first heated to a temperature of not less than 158 degrees Fahrenheit, and then passed through a circular milk cooler, quickly reducing the temperature to within a degree of the temperature of the cold water used. This process neutralizes germs and makes the milk much more palatable and wholesome, besides improving its keeping qualities. In all the leading towns and cities of Great Britain this system is being employed by milk dealers who cater for the best trade. The pasteurization of cream is an important factor in the manufacture of butter, ensuring uniformity in the flavor and destroying that salty and insipid taste so commonly found, besides adding to its keeping qualities. Seven-eighths of the butter imported from Denmark into Great Britain is made from pasteurized cream, and sells uniformly for higher prices than Canadian. Mr. Austin A. Lister, son of the head of the firm, is now in charge of the Montreal house, which is the headquarters for Ontario, Quebec and the Maritime Provinces. He has erected and equipped a factory with the most modern plant for the manufacture and repair of the Alexandra and Melotte cream separators, in order to avoid delay in the execution of orders. Users and intending buyers will appreciate this, as it is most important for factory proprietors or farmers to be able to get repairs done or new parts supplied quickly, and thus save a large quantity of milk being thrown on their hands.

Clydesdale Horses for Sale



25 young Clydesdale geldings, raised in the country, and of good weight (nearly all from registered mares, some of them imported), and sired by the celebrated prizewinning imported horses, Raith

Laddie, Pure Clink, and Balgrogan Hero. Also two Clydesdale stallions. For further particulars apply to

A. & G. MUTCH, Craigmiles, Lumsden P.O., Assa.

D. FRASER & SONS, EMERSON, MAN.

Breeders and importers of Durham Cattle, Shropshire and Southdown Sheep, and Pure-bred Poland-China Pigs a specialty. Young stock for sale. 9-3-m

YOUNG BULLS

of Missie, Mina, Rosebud, Strathallan, Wimple, and other choice Scotch breeding. Also, females at moderate prices.

W. S. LISTER, MIDDLECHURCH, MAN.
Marchmont Stock Farm, near Winnipeg, Man.

Galloways for Sale

6 Bull Calves for Sale

at right prices.

Also heifers and cows at reasonable figures. Stock all well pedigreed and first class quality.

Apply to **T. M. CAMPBELL, Manager.**
Hope Farm, St. Jean Baptiste, Manitoba.

Shorthorns



Will sell the fine young dark red Shorthorn Bull, Sharkey = 30615 =; calved March 15th, 1899; got by Mina's Prince = 24970 =; dam Maggie Bell = 30991 =; bred by John Treastin, Strathburn, Ontario.

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SHORTHORNS AND NATIVE RYE GRASS.

6 Shorthorn Bulls, including the splendid herd bull, Sir Victor = 21612 =, shown 11 times, taking 10 first prizes, 2 diplomas and a silver cup.

Western Rye Grass Seed (*Agropyron tenerum*). Sound, clean sample. In grain bags, \$6.25; in bran bags, \$6.10, per 100 lbs. f.o.b. Virden. Write or call.

KENNETH McIVER, Roselea Farm, Virden, Man.

WILLOWDALE STOCK FARM.

SHORTHORN CATTLE CLYDESDALE HORSES

A number of young Clydesdale Mares and Fillies. Also a few choice young Bulls, sired by Caithness = 2295 =. Address,

PURVES THOMSON, PILOT MOUND, MAN.

THORNDALE STOCK FARM, MANITOBA.

JOHN S. ROBSON, PROP.

30 Shorthorn Bulls and 50 Heifers FOR SALE

Write for particulars.

Shorthorn Cows and Heifers for Sale

GEORGE BONDY, HAMOTA, MAN.

PLEASE MENTION FARMER'S ADVOCATE.

Dominion Sheep Breeders' Association.

The members of the Dominion Sheep Breeders' Association met in convention in London on Dec. 14th. President D. G. Hamner presided, and in his opening remarks congratulated the breeders on the year's business. On the platform before the audience were hung four dressed carcasses of mutton, viz., a Shropshire lamb, and yearlings of Oxford, Suffolk, and Southdown. Taking these carcasses as a text, Messrs. Foylds and Yapp, of Brantford, gentlemen who for years have handled large quantities of sheep, dead and alive, gave interesting addresses upon the needs of the home and foreign markets. These gentlemen had judged the dressed carcasses, and did not in every case agree with the decisions made by the judges of the sheep when they were alive. The block test, however, is the final court of appeal which settles the value of an animal from a consumer's standpoint. Mr. Foylds spoke first, referring more particularly to the requirements of the home market. He explained that the demand for heavy, fat mutton which held sway a number of years ago has given place to a call for lighter, leaner meat. Of the four sheep hung up, the Shropshire wether lamb was given a decided preference over the others, as on it there was not an excess of fat that would require to be cut off and thrown aside. The Southdown was referred to as an excellent specimen, but his feeder had been too good to him, as he carried an excess of fat on the ribs, tail, and over the kidneys. Mr. Foylds estimated that the Southdown's legs of mutton would require to be sold at 25 cents per pound in order to make up for the waste that would be cut off other parts of the carcass. The speaker claimed that the pure-breds or crosses of the Downs were most in favor, since they grow a greater proportion of lean to fat meat, and mixed it better. This proposition, however, is measured by growing the sheep on short pastures, where considerable exercise would require to be taken. The Shropshire lamb which pleased Mr. Foylds so well dressed 62 pounds, and was practically all, except the bone, high-class meat. The Oxford was declared to be very suitable for the market, as was also the Suffolk. The trend of the speaker's remarks was that a mutton sheep should be grown similar to a bacon pig, by first having a good animal and then keeping it gradually growing, but not fattening until it is ready for the market, at not more than a year old.

Mr. Yapp, in speaking on the export mutton trade, stated that it does not differ in its wants from those of the home market. A medium-sized carcass, plump, and predominating in lean meat, is what is wanted by all mutton eaters, except persons who do hard manual outdoor labor. What we must cater to is the high-priced trade. Mr. Yapp considers crosses of Lincoln, Leicester or Cotswold with Southdown, Shropshire or Hampshire give the ideal export sheep. Lambs dressing 60 to 65 pounds and sheep dressing 70 to 75 pounds fill the bill so far as weights are concerned, but they must be nicely fleshed and not over-fat. Great interest was taken in the addresses, as was manifested by questioning of those present.

Mr. George McKerrow, of Sussex, Wis., who acted as judge in several of the classes, made a brief address full of pithy points.

Hon. Mr. Dryden, M. P., expressed his pleasure in observing the interest taken in the block test, which is down to the rock-bottom of judging stock that is to be consumed. He expressed the opinion that the producer and consumer must go hand in hand, since the produce of the one must suit the other if business is to be done between them.

The election of officers resulted as follows:—President, A. W. Smith, Maple Lodge; Vice-President, R. H. Harding, Thorndale; Secretary-Treasurer, A. P. Westervelt, Toronto; Directors: Cotswolds, D. McCrae, Guelph; Leicesters, W. Whitelaw, Guelph; Hampshires and Suffolks, John Kelly, Shakespeare; Dorsets, John Hunter, Wyoming; Southdowns, John Jackson, Abingdon; Oxfords, Jas. Tolton, Walkerton; Lincolns, T. E. Robson, Ilderton; Merinos, W. M. Smith, Fairfield Plains; Shropshires, D. G. Hamner, Brantford; Ontario Agricultural College, Prof. G. E. Day, Guelph; Auditor, J. M. Duff, Guelph. Representatives to Fair Boards: Toronto Industrial, J. M. Gardhouse, Highfield; John Jackson, Abingdon, Ottawa; F. W. Hodson, Ottawa, London, W. H. Beattie, Wilton Grove; A. W. Smith, Maple Lodge. Delegates to the Board of Provincial Winter Fair: R. H. Harding, A. W. Smith, James Tolton.

EXPERT JUDGES RECOMMENDED.
Oxfords.—Smith Evans, Gourock; Jas. Tolton, Walkerton; R. J. Hine, Dutton; Henry Arkell, Arkell; Wm. H. Arkell, Teeswater; J. H. Jull, Mt. Vernon; Peter Arkell, Teeswater; Kenneth Findlayson, Campbellton; Andrew Elliott, Pond Mills; Duncan Brown, Iona; Wm. Dickson, Mildmay; John Harcourt, St. Ann's; John E. Cousins, Harriston; R. E. Birdsall, Birdsall; A. R. McKenzie, Thorwhin; J. V. Cooper, Picton; Wm. Newman, Cherry Valley; L. Parkinson, Greenock; Jas. L. Tolton, Walkerton; Noel Gibson, Delaware; Wm. Lea, Simcoe; Geo. McKerrow, Sussex, Wis.; W. A. Shafer, Middletown, Ohio; Prof. Craig, Ames, Iowa; Prof. Curtiss, Ames, Iowa.

Lincolns.—Wm. Oliver, Avonbank; J. T. Gibson, Denfield; E. Parkinson, Eramosa; T. E. Hobson, Ilderton; G. Walker, Ilderton; John Geary, London; J. C. Snell, London; R. W. Stephens, Lambeth; L. Parkinson, Eramosa; John Mitchell, Glencoe; John White, Eramosa; Alex. Smith, Maple Lodge; Wm. Whitelaw, Guelph; T. Curley, Fullarton; T. Hardy Shore, White Oak; J. H. Patrick, Ilderton; James Petty, Hensall; James Cranston, Denfield.

Southdowns.—John Miller, Markham; Wm. Martin, Binbrook; H. N. Gibson, Delaware; John Jackson, Abingdon; T. Douglas, Guelph; Henry Arkell, Teeswater; W. H. Beattie, Wilton Grove; A. Simonton, Blackheath; Geo. L. Birdsall, Birdsall; J. G. Hamner, Mt. Vernon; J. C. Cousins, Harriston; C. Baker, Simcoe; James G. G. Vernon; H. B. Jeffs, Bond Head; R. H. Harding, Guelph; Geo. McKerrow, and J. M. Duff, Guelph, N. Y.

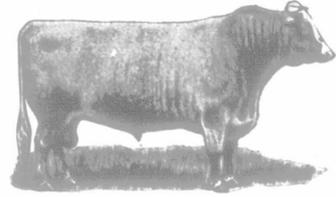
Shropshires.—Wm. M. Smith, R. H. Harding, A. W. Smith, D. G. Hamner, G. Walker, J. H. Jull, Wm. H. Arkell, Peter Arkell, Kenneth Findlayson, Andrew Elliott, Duncan Brown, Wm. Dickson, John Harcourt, John E. Cousins, R. E. Birdsall, A. R. McKenzie, J. V. Cooper, Wm. Newman, L. Parkinson, Noel Gibson, Wm. Lea, Geo. McKerrow, W. A. Shafer, Prof. Craig, Prof. Curtiss, Wm. Oliver, J. T. Gibson, E. Parkinson, T. E. Hobson, G. Walker, John Geary, J. C. Snell, R. W. Stephens, John Mitchell, Alex. Smith, T. Curley, T. Hardy Shore, J. H. Patrick, James Petty, James Cranston, John Miller, Wm. Martin, H. N. Gibson, John Jackson, Henry Arkell, A. Simonton, Geo. L. Birdsall, J. G. Hamner, J. C. Cousins, C. Baker, James G. G. Vernon, H. B. Jeffs, R. H. Harding, Geo. McKerrow, and J. M. Duff.

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Yorkshire AND Berkshire Swine.



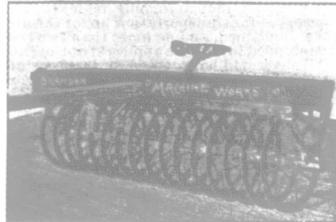
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Berkshires, by the great boar, Nonpareil, and out of such sows as Harmony and Starlight Maid, Yorkshires, by the sweepstakes boar, Yorkshire Bill, and out of such sows as Stamira, Markham Maid, Eliza Jane, and Crystal City Kate. Orders booked for spring pigs.

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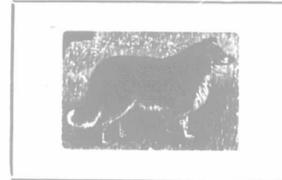
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Dairy Shorthorns. Lord Stanley 25th = 29247 = at head of herd. Berkshire Swine. Orders booked now for spring litters. Barred Plymouth Rocks. Choice cockerels for sale.

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Stock of all ages and both sexes, at prices according to quality. Auction sales of farm stock undertaken. Improved farm and wild lands for sale in the Winnipeg district. Correspondence solicited.

W. G. STYLES,

Sec. 12-13-1. West, Rosser P. O., C. P. R.



6 young bulls, by Manitoba Chief and Robbie O'Day, out of some of our best cows. 9 Berkshire sows of choice quality and breeding, from 5 months to 3 years. The standard of our Yorkshire herd is steadily improving. Our stock boars, the sweepstakes at last Industrial.

the other recently imported from England, are grand specimens of the breed. A choice lot of sows ready for breeding. About 50 B. P. Rock Cockerels, strong, healthy birds, of great size and good markings. All at reasonable prices.

ANDREW GRAHAM, Forest Home Farm, Pomeroy, Man. Roland, N. P. R.; Carman, C. P. R.

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STOCK FOR SALE. WRITE OR CALL ON J. H. KINNEAR, SOURIS, MAN.



POPLAR GROVE HEREFORDS THE LARGEST HERD IN CANADA.

STOCK OF ALL AGES FOR SALE.

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I keep only the best. For stock of all ages Write or call. WM. SHARMAN, "Ridgewood Stock Farm," SOURIS, MAN.

Polled - Angus AND BERKSHIRES.

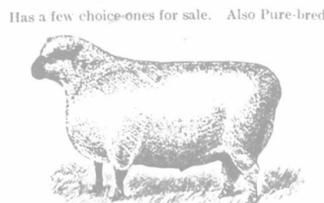
I have a few young pigs of both sexes for sale. Write:

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IMPORTER OF Clydesdales, Shires, Hackneys.

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SHROPSHIRE SHEEP, Rams and Ewes, from the most fashionable imported blood. Inspection invited. For full particulars, Apply: Box 483, Brandon, Manitoba.

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40 Ram Lambs, 8 Shearlings, 50 Breeding Ewes for sale.

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SOUTH SIDE FARM CO.,

White Bear, Minn., Have fine butter-bred Holstein Friesian bull calves for sale at reasonable prices. Johanna Rue 2nd's Paul De Kol at head of herd.

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Breeder of high-class T. C. B. Minorcas, Houdans, and White Wyandottes; also Bronze turkeys, Pekin Bantams, Pekin ducks. Young stock for sale of all varieties. Write or call.

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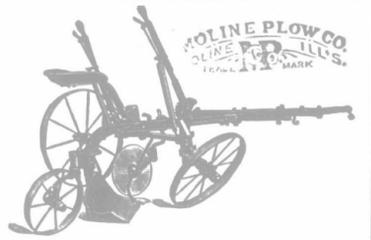
Rosebank Stock Farm, Pilot Mound, Man. Breeders of Poland-China pigs and Cotswold sheep of choice quality, offer select seed potatoes of eighty varieties. Write for catalogue.

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Young stock for sale - some beauties. Satisfaction guaranteed. A. M. ROBERTSON, KEEWATIN, ONT.

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A great opportunity is here offered to any one desiring a first-class farm. For particulars apply to

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Currelly, Fullarton; R. Eastwood, Mimico; John Kelly, Shakespear; Andrew Thompson, Fergus; J. K. Campbell, Palmerston; J. C. Snell, London; G. B. Armstrong, Teeswater; John Gibson, Denfield; C. E. Wood, Freeman; Jos. Gaunt, St. Helen's; J. M. Gardhouse, Highfield; John Laidlaw, Wilton Grove; Andrew Whitelaw, Guelph; Wm. Whitelaw, Guelph; R. C. Martin, Marysville; Alex. Smith, Maple Lodge; A. Waldie, Acton; W. Nichol, Platts-ville; H. G. Arnold, Maidstone; Prof. Craig, Ames, Iowa; John Marshall, Cass City, Mich.; A. W. Murphy, Cass City, Mich.; Prof. Curtiss, Ames, Iowa; D. C. Graham, Cameron, Ill.; Geo. Penhale, Exeter; Jas. Snell, Clinton; Jno. Wright, Chesley; Prof. Grisdale, Prof. Day; M. Campbell, Northwood; D. Lillico, Galt. Cotswolds - Jas. Russell, Richmond Hill; Wm. Thompson, Uxbridge; Thos. Teasdale, Concord; D. McRae, Guelph; H. Rawlings, Ravenswood; Val. Ficht, Oriol; J. C. Snell, London; T. Hardy, Shrewsbury; Geo. Weeks, Glanworth; Wm. Ward, Uxbridge; W. G. Laidlaw, Wilton Grove; Wm. Rae, Arkell; Joseph Ward, Marsh Hill; John Park, Oriol; Jos. D. Davidson, Belhaven; A. Johnston, Greenwood; John Good-fellow, Maxville; Andrew Russell, Carrville; A. J. Watson, Castleberg; Samuel Bailey, Atoxeter; J. Slater, Buttonville; George Allen, Oriol.

Shropshires - R. Gibson; G. P. Everett; J. Doworth, Paris; W. H. Beattie; A. Brown, Pictou; R. Miller, Brougham; J. Hamner; Jas. McFarlane, Clinton; J. Campbell, Wood-ville; D. G. Hamner; Jas. Phinn, Hespeler; M. Levering, Lafayette, Ind.; A. Elliott, Galt; J. Dickin, Milton West; J. S. Thompson, Gas City, Ind.; Geo. Allen, Allerton, Ill.; W. G. Pettit, Freeman; D. J. Campbell, Woodville; G. Phinn; Charles Calder, Brooklin; H. N. Gibson, Delaware; Geo. Hindmarsh, Ailsa Craig; C. W. Gurney, Paris; W. E. Wright, Glanworth; J. Miller, Brougham; H. Hamner, Burford; Prof. Curtiss, Ames, Iowa; Prof. Craig; J. C. Duncan, Lewiston, N. Y.; G. McKerrrow; Prof. G. E. Day; S. Hagar, Plan-tagenet; Jos. Barnet, Rockland; Geo. T. Tel-fer, Paris.

Hampshires and Suffolks - Henry Arkell, R. Gibson; L. Hillier, Thornton, Mich.; John I. Gordon, Mercer, Pa.; John A. Craig; W. H. Beattie; James Bowman, Guelph; John Kelly, Shakespear.

Dorsets - G. McKerrrow; John Hunter, Wy-oming; James Bowman; Henry Arkell, Tees-water; Henry Arkell, Arkell; M. N. Empey, Napance; E. O. Denton, Somerset, N. Y.; Herbert Hamner; R. Bailey; R. H. Harding. The judges named for the principal fairs were:

Leicesters - Toronto Industrial - James Snell, Clinton; Jos. Gaunt, St. Helen's; referee, John Laidlaw, Wilton Grove. London - William McIntosh, Burgoyne; reserve, W. Parkinson, Eramosa. Ottawa - John Orr, Galt. Brant-ford - W. Whiteleau, Guelph. Director, W. Whiteleau, Guelph.

Cotswolds - Toronto Industrial - G. Weeks, Glanworth; W. Thompson, London - J. Rus-sell, Richmond Hill; W. G. Laidlaw, Wilton Grove. Ottawa - V. Ficht, Oriol; J. D. David-son, Belhaven. Director, D. McCrae.

Orfords - Toronto Industrial - James Tolton, Walkerton; Henry Arkell, Arkell, London - W. H. Arkell, Teeswater; J. L. Tolton, Walkerton. For Toronto - George Allen, Allerton, Ill.; George Hindmarsh, Ailsa Craig; reserve, W. H. Beattie, Wilton Grove. Lon-don - J. C. Duncan, Lewiston, N. Y.; reserve, Geo. Phinn, Hespeler, Ont. Ottawa - R. Gib-son, Delaware; reserve, A. Elliott, Galt. Fat Stock Show - George McKerrrow, Sussex, Wis.; reserve, Prof. Curtiss, Ames, Iowa.

Orfords - For Toronto - James Pettit, Hen-sall; L. Parkinson, Greenock. London - Earn-est Parkinson, Eramosa; Hardy Shore, Glan-woth.

F. W. Hodson, the retiring secretary, was elected a life member of the association.

GOSSIP.

Edward R. Hogate, of the "Hogate Importing Company" of Toronto, Canada, sailed last Wednesday, the 20th of December, from Boston, per the steamer "New England," for Liverpool, where he intends purchasing a number of shire, Clyde and coach horses. Mr. Hogate's first shipment will land in Toronto about the 1st of January, 1900. He intends remaining in England and to continue shipping over to this country. Messrs. Hogate's stables are at 84 and 86 George St., Toronto. Their sales have been very good this year. See another page for their advertisement.

H. O. Aycarst, Middlechurch, writes: "In regard to the young bulls advertised in this issue, I can only say that they are the best, I believe, I have ever bred. The oldest is 14 months, got by Gravesend's Heir 2nd, imported in damp, and out of Crimson Chrysanthemum, by imp. President. He is white and is a grand bull, big and stylish. The next, a solid red, got by Gravesend's Heir 2nd, and out of Star-light, by Vensgarth (imp.). He is one of the thick, heavy-set sort, with a remarkably well-fleshed back a beautiful young bull, good enough for anyone; his age is 13 months. The other is a red and white, 6 months old, and is a full brother to Mr. Robert White's (of Wabou) grand stock bull, got by President (imp.) and out of Crimson Gem, by Indian Chief (imp.). They are in just nice growing form, have not been forced in any way, and are in the best possible condition to do their purchasers good.

GLADSTONE GRAIN COMPETITION.

In connection with the annual meeting of the Agricultural Society of Westbourne, held on December 12th, at Gladstone, an exhibit of grains and grass seeds was held, when the following prizes were awarded:

Wheat, Red Fyfe, J. J. Stewart, A. H. Rogers, Alfred Clayton. Collection, Geo. Grantham, A. H. Rogers. Barley, two-rowed, A. West. Barley, six-rowed, G. Grantham, J. J. Stewart. Barley, black, Geo. Grantham. Oats, white, J. J. Stewart, A. West. Oats, black, A. West, G. Grantham. Peas, J. H. Grantham, G. Grantham. Flax, A. H. Rogers, J. J. Lackie. Corn and timothy, A. H. Rogers. Home grass, W. C. Murrin, A. H. Rogers. Beans, Geo. Grantham.

[Presumably it is the intention of the Society to enter the prize-winning samples in the Inter-provincial contest at the next Winnipeg Industrial.]

Horse Owners! Use



GOMBAULT'S Caustic Balsam A Safe Speedy and Positive Cure The Safest, Best BILSTER ever used. Takes the place of all liniments for mild or severe action. Removes all Bunches or Blemishes from Horses and Cattle. SUPERBIDES ALL CAUTERY OR FIRING. Impossible to produce scar or blemish. Every bottle sold is warranted to give satisfaction. Price \$1.50 per bottle. Sold by druggists, or sent by express, charges paid, with full directions for its use. Send for descriptive circulars. THE LAWRENCE-WILLIAMS CO., TORONTO, CAN.

THE Very Best

PLACE FOR THE FARMER'S SON TO SPEND THE WINTER MONTHS IS AT THE Winnipeg Business College.

WRITE FOR HANDSOME CATALOGUE (FREE). G. W. DONALD, SECRETARY.



Dana's White EAR LABELS stamped with any name or address with consecutive numbers. I supply forty recording associations and thousands of practical farmers, breeders and veterinarians. Samples free. Agents Wanted. C. H. BAYNE & Co., 101 West Labadie, N. W.

THORNCLIFFE Stock Farm

The largest stud of Clydesdales in Canada, headed by the Champion Stallion of all ages, "LYON MACGREGOR."



Stallions, Mares, Colts and Fillies

Of all ages, from the best blood in Scotland and Canada. Now is the time to purchase a young colt and raise him yourself. We have on hand weanlings weighing over 900 lbs., also year-olds, 2-year-olds and 3-year-olds, colts and fillies. Ayrshire bulls and heifers from imported stock. Best milking strains, with good teats. Terms reasonable. A visit to Thorncliffe will well repay you.

ROBT. DAVIES, Thorncliffe Stock Farm, TORONTO.

DALGETY BROS.,

GLENCOE, ONT., "Largest Importers . . . in Canada."

A large importation of CLYDESDALE stallions and mares just arrived, also Hackneys and Shires, including several prizewinners in Scotland. Ages ranging from 2 yrs. to 6; weighing up to 2,400 lbs. No exorbitant prices asked. Small profits and quick returns.

Edward R. Hogate Company

IMPORTERS OF English Shire and Clydesdale Stallions.

We have them on hand from 3 to 5 years old, weighing from 1,800 pounds upwards. Write now for particulars and where you can buy the cheapest. We expect our next importation from England to arrive about January 1st, 1900.

EDWARD R. HOGATE, 10 Maitland Street, TORONTO, CAN. Barns: 84 and 86 George Streets.

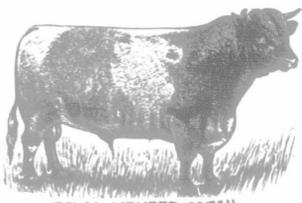
10 Imported Shorthorn Bulls

ALL SCOTCH.

21

IMPORTED HEIFERS.

ALL SCOTCH.



ROYAL MEMBER (64741)

21

IMPORTED HEIFERS.

ALL SCOTCH.

Heifers all in calf to imported bulls. Also a number of first-class home-bred animals of either sex. The oldest home-bred bull we have was calved in April last. Correspondence or a personal visit solicited. Catalogues on application.

H. CARGILL & SON, CARGILL, ONT.

Cargill Station and Post Office on G. T. R., within half a mile of barns.

20 - Imported Scotch Shorthorns - 20

2 BULLS, 1 and 2 YEARS OLD; 14 HEIFERS, 2 YEARS OLD; 4 YEARLING HEIFERS.

THIS importation came out of quarantine on the 12th July, and representatives of many of the leading Scotch families are amongst them, including Minas, Brawith Buds, Secrets, Mysies, Beauties, Lady Mays, Lustres, etc. The home-bred herd contains Indian Statesman = 23004 =, and 15 young bulls from 6 to 18 months old, and 50 cows and heifers of all ages. Registered Shropshires, yearling rams and ewes, ram lambs from imp. Flashlight. Any of the above will be sold at reasonable prices. Correspondence or a personal visit solicited. Catalogues on application.

Burlington Junction Station and Telegraph Office, G. T. R., within half a mile of farm. **W. G. PETTIT & SON, FREEMAN, ONT.**

HILLHURST FARM.

ESTABLISHED 1864.

Scotch Shorthorns.

Sires in service: **SCOTTISH HERO AND JOY OF MORNING.** BRED BY W. DUTHIE, COLLYNIE.

Oldest Stud of Hackneys in America. Shropshire, Dorset Horn, and Hampshire Down Sheep.

M. H. COCHRANE,

HILLHURST STATION, COMPTON CO., P. Q.

The Largest Herd of Ayrshires in America. The Largest Herd of Guernseys in Canada.

Special Sale for January Only:
Six Ayrshire bulls, from 1 to 3 years; 4 Guernsey bulls, 1 year and over. The above animals fit to head any herd. Also a few choice bull calves of either breed. 10 Yorkshire boars fit for service; 6 Yorkshire young sows, for breeding. All choice stock.

For particulars, address
ISALEIGH GRANGE FARM, Danville, Quebec
J. N. GREENSHIELDS, PROP. T. D. MCCALLUM, MGR.

SPRING GROVE STOCK FARM

Shorthorn Cattle and Lincoln Sheep. Herd prize and sweepstake at Toronto Industrial Exhibition, 1897 and 1898. Herd headed by Topman = 17847 =, champion at Winnipeg, Toronto, London and Ottawa, 1899. High-class Shorthorns of all ages for sale. Also prizewinning Lincolns. Apply

T. E. ROBSON, Ilderton, Ont.

FIVE SHORTHORN BULLS

Will be sold to make room. Good quality and breeding. Also Mammoth Bronze turkeys. Inspection invited on **H. C. GRAHAM, Ailsa Craig.**

Maple Lodge Stock Farm

ESTABLISHED 1854.

SHORTHORNS.—Exceptionally good young bulls by Cathness = 22063 = and Abbotsford = 19146 =. And choice heifers in calf to Abbotsford and our grand young imported bull, Knuckle Duster (72973). We have the best milking strains, **LEICESTERS.**—The very best imported and home-bred rams and ewes for sale. Write us for prices.

ALEX. W. SMITH,

MAPLE LODGE P. O., ONT.

8 SHORTHORN BULLS 8

From 8 to 19 Months.

Thick-fleshed reds and roans, out of Bates-bred Scotch-topped dams, and by Lord Stanley 1th, twice a winner at Toronto. Registered Yorkshires later, on **G. & W. GIER, Grand Valley, Ont.**

PLEASE MENTION FARMER'S ADVOCATE.

River Bow Stock Farm.

B. SNARY & SONS, CROTON, ONT.,

Breeders of

Shorthorn Cattle, Poland-China and Chester White Swine.

We offer for sale three good fleshy young bulls: a number of cows and heifers; six Poland-China and Chester White boars; twenty Buff and Barred Plymouth Rock cockerels. Prices moderate.

25-Shorthorn Bulls-25

From 6 to 18 months. Also a limited number of females, among which are grand, thick-fleshed and choicely bred animals, mostly solid red colors. Speak quick, for they will not last long.

G. A. BRODIE,

STOUFFVILLE STATION, BETHESDA, ONT.

F. W. STONE ESTATE, GUELPH, ONTARIO.

The first Hereford herd established in Canada by importations in 1859 of the best prizewinners of England, followed by repeated further importations, including winners of first prize at Royal Agricultural Show. Choice young Hereford Bulls for sale. Also McDougall's Sheep Dip and Cattle Wash, fresh imported, non-poisonous and reliable; thoroughly tested by over forty years' use on farms of above estate.

BRAMPTON JERSEY HERD.

Brampton's Monarch (imported), Canada's champion bull, 1898, heads the herd, which numbers 75 head. Now for sale, high-class cows and heifers in calf, heifer calves, and 6 extra choice young bulls, sired by Monarch, the best we ever saw. They are from test-stool show cows. A few high-grade springers.

B. H. BULL & SON,

BRAMPTON, ONT.

GOSSIP.

John E. Smith, Beresford Stock Farm, Brandon, reports the sale of the (Clydesdale stallion, Jubilee of Beresford [2359], out of Rosilee of Beresford, by Lord Randy (imp.), to William Bryce, of Fort Qu'Appelle. Also the Shorthorn bull calf, Lord Stanley 25th, to Walter James, Rosser, to head his Shorthorn herd.

It is with deep regret that we chronicle the death of James Gaunt, Jr., of the firm of James E. Gaunt & Sons, St. Helen's, Ont., whose names have for many years been intimately associated with the Shorthorn cattle and Leicester sheep industry in Canada. Mr. Gaunt's lamented death came on December 2nd, after a protracted illness.

J. A. S. Macmillan, Brandon, announces, just as we go to press, that he has sold his celebrated Hackney stallion, Prince Danegelt II., to J. T. Mooney, of Wawanesa. This magnificent horse has been a successful prizewinner at the Winnipeg Industrial and Brandon Summer fairs. As a stud horse he has been exceedingly popular in the Brandon district, and Mr. Mooney is to be congratulated upon his purchase. See his portrait in Mr. Macmillan's beautiful illustration in the Christmas issue, also reference to his breeding and accomplishments.

Mr. Kenneth Melvor, of Roslea Stock Farm, Virden, Man., offers for sale six pure-bred Shorthorn bulls fit for spring service, including the herd bull, Sir Victor = 21612 =, of which Mr. Melvor says: "I am reluctantly compelled to part with Sir Victor, owing to my herd being too small to keep two bulls. Sir Victor has never served over 25 cows in one season, consequently is as sure and active as ever. His get, both pure-bred and grade, are almost invincible at our local shows. Mr. Melvor also informs us that the demand for Western rye grass seed is much in excess of previous years.

Walter James, Maple Grove Stock Farm, Rosser, Man., whose advertisement appears in this issue, has recently purchased from John E. Smith, of Brandon, the young bull, Lord Stanley 25th = 27247 =, by Lord Stanley 2nd, dam Lady Greenway, by imp. Lord Lansdowne, grandam by Champion Hero = 324 =. Lord Stanley 2nd was sired by Topman, the champion bull of Canada, in 1899, out of imp. Roan Princess. Lord Lansdowne was imported by Hon. John Dryden, and stood at the head of J. & W. B. Watts' herd for three years. Lord Stanley 25th is a solid red, low, thick-set, deep-bodied youngster of large size for his age, lots of width and constitution. Mr. James has recently sold a promising bull calf to James Black, of Headingly.

James Yule, manager Hon. Thomas Greenway's Prairie Home Stock Farm, reports among others the following recent sales: To Hough Bros., of McLean, N. D., the imported cow, Red Rose, bred by Wm. Ross, Aberdeenshire, sired by Waterloo (68065), and also Lady Jane Grey 5th (imported), and a Yorkshire boar and sow; to Senator McCana, of Cando, N. D., a 2-year-old heifer, Emma Hazelwood, and a Yorkshire boar; to A. McCarty, Cando, the 2-year-old heifer, Narissa; to E. T. Cochran, Clearwater, one of the best Berkshire sows in the herd; Easter Queen, and also a boar; to Thos. Baird, Clearwater, one Berkshire sow; to Samuel Roberts, Clearwater, one Yorkshire sow; to D. Crawford, Wapella, Yorkshire sow; to O. A. Henderson, of Methven, Yorkshire boar; to Mr. Mey, Niverville, two Berkshire sows and a boar, and two Yorkshire sows and a boar.

Henry Stevens & Sons, Lacona, N. Y., write: "Sales at Brookside continue good. We have been breeding Holstein-Friesians for 23 years and sales were never better than this fall. Milk, butter and cheese have been bringing good prices, and there appears to be a better feeling among breeders and dairymen than for some years past. The victories our breed have won in competitive Fair Ground butter tests all over the U. S. and in Canada is demonstrating year by year the value of our breed, not only as milk producers, but also butter producers as well. One of the most important sales we have made of late was the young bull, Brookside Hengerveld Paul, to Henry Wisler, of Columbia, Pa. This bull is a son of Netherland Hengerveld. It will undoubtedly be remembered by most of your readers that this cow made more butter in her week's official test than any cow ever yet officially tested, viz., 26.65 lbs. Her milk averaged during the week of this test 3.92 per cent. butter-fat. Mr. Wisler's herd contains about 40 head, many of them exceptionally well bred animals. Among the number is a daughter of our great cow, Helena Burke. It will be remembered that Helena Burke won the seven-day butter test open to all breeds at the Trans-Mississippi Exposition in 1898 after travelling thousands of miles and being exhibited at five State Fairs before the test commenced. Her official test is 25.45 lbs. of butter in seven days, 98 1/2 lbs. of milk in one day, and 65 1/2 lbs. in seven days, which is the largest week's milk record made by any cow in an official test."

NOTICE.

Stock Breeders', Farmers' Institute and Dairy Bulletin.—The report of the Farmers' Institutes, Cattle Breeders', Sheep and Swine Breeders', and Dairy Associations of the Province of Manitoba for the year 1899 have recently been published by the Department of Agriculture, Winnipeg. There are in the volume 160 pages of closely-printed and carefully-selected matter.

The Institute report contains a list of Institutes, secretaries and meetings held, and some fourteen addresses by leading Institute workers, among which are: "The Improvement of Live Stock" by Prof. G. E. Day, of the O. A. C., Guelph; "Contagious Diseases of Animals," by Prof. Hopkins, of Wisconsin Agricultural College; "Concrete for Farm Buildings," by N. B. Hagar; "Noxious Weeds," by Rev. W. A. Burman; "Tree Planting," by A. P. Stevenson; and others.

In addition to the regular reports of business transacted during the year, lists of members, officers, etc., the Live Stock Association's report contains copies of papers read at the last annual convention, together with the discussions which followed each. Many of these papers are worthy of careful study.

The Dairy Association report also contains full particulars of the season's business, lists of members, and addresses delivered at the annual convention. Copies may be had on application to the Department of Agriculture, Winnipeg, or the Association secretaries.

\$200 Do you want a Snap? \$200

Now is your chance. One good Jersey cow, 7 years old; one good Jersey heifer, 3 years old; and one bull, 3 years old; or, if preferred, a good yearling bull. All registered in the A. J. C. C. Both cows due to calve soon (in calf to Handsome Kloter, one of Mrs. E. M. Jones' best bulls). All for the low price of \$200 (if taken before cows drop their calves), f. o. b. cars at Chatham, or will sell singly. Also young Jersey bulls, and a few choice Jersey grade heifers at reasonable prices.

W. W. EVERITT, Chatham, Ont.

GLEN ROUGE JERSEYS.

WILLIAM ROLPH, Markham, Ont., offers twelve Jersey Bulls and Heifers (pure St. Lamberts), out of tested cows. Grand individuals. Prices right.

Jersey Cattle

THAT WILL PUT

MONEY IN YOUR POCKET.

Mrs. E. M. Jones,

Box 324. BROCKVILLE, ONT., CAN.

The Big 4 at Brookside

THEIR HOLSTEINS:

Netherland Hengerveld..... Official test, 26.66 lbs.
De Kol 2nd..... " " 26.57 "
Belle Koradyke..... " " 25.77 "
Helena Burke..... " " 25.45 "

We want to sell 40 cows and heifers, and 20 young bulls, bred in the lines above mentioned. Write, stating exactly what you want.

Henry Stevens & Sons, Lacona, N. Y.

Maple Glen Stock Farm.

For immediate sale, **Quality Tops** of 10 choice females of rich breeding. **Blood Best** of winners. Some are prize winners. "test" others bred to bulls of rich merit; ranging in age from one to eight years old. Also a bull one year past, and a couple of Sylvia DeKol August bull calves. C. J. Gilroy & Son, Glen Buel, Ont. Brockville, on C. P. R. or G. T. R.

MAPLE HILL HOLSTEIN-FRIESIANS

Three Yearling Heifers, sired by Colanthus Abbecker 2nd, and in calf to Daisy Teake's King (brother to Daisy Meake's Queen, the great test and show cow).

Three Bull Calves, sired by De Kol 2nd's Paul De Kol Duke, the great butter-bred bull; dams, the fine show cows, Lady Akkrum 2nd, Cornelia Artis, and Madge Merton.

G. W. CLEMONS, St. George, Ont.

OH, YES!

We sell Holsteins, singly or a car-load. For sale now—7 bulls, over 1 year; 7 calves, over 1 month; 15 females, any age desired, bred to any one of our great bulls, Calamity Jane's Paul, Homestead Albino De Kol, Count Calamity Clay, three of the greatest bulls in America. State just what you want.

A. & G. RICE, Currie's Crossing, Oxford Co., Ont.

CHOICE AYRSHIRE BULLS

OFFER for sale 1 August and 1 October, 1899, bull, and an April, an August, and a November calf, of 1899. The August calf is a son of that exceedingly fine cow, Daisy 1st of Auchenbrain. Good individuals. Dams of heavy milking ancestry, and sired by prizewinning imp. bulls.

W. W. BALLANTYNE,

Formerly Thos. Ballantyne & Son, Stratford, Ont.

"NEIDPATH FARM" adjoins city, main line G.T.R.

AYRSHIRES FOR SALE.

The kind that can speak for themselves. Size, constitution, dairy and show combined. Six young bulls for sale, by Glencairn 3rd (imp.), dam Primrose (imp.). Five from Napoleon of Auchenbrain (imp.). Their dams are all Glencairn heifers. Five of their dams were shown last fall at Toronto, London, and Ottawa. Also a few good cows. No culls sold.

JAMES BODEN, TREDINNOCK FARM,

STE. ANNE DE BELLEVUE, QUE.

HICKORY HILL AYRSHIRES.

A few choice dairy bulls for sale, or will exchange for first-class fresh milch cows, if taken at once.

N. DYMONT, Clappison's Corners, Ont.

Hamilton Station.

FOR SALE.

1 Three-year-old Ayrshire Bull; 4 Ayrshire Bulls, one year old; 3 Ayrshire Bulls, 8 months old; Bulls and Heifers under two months, and Cows of all ages; 8 Shropshire Ram Lambs, also Ewes; 1 Berkshire Boar, 1 year old; 2 Boars under one year, also Sows, pairs not akin. Plymouth Rock Hens and Chickens; a few fine Cockerels left.

J. YUILL & SONS, Props., Carleton Place.

Ayrshire Bull Calves of 1899

3 YET on hand, and more to come within the next month, from some of our best imported cows. Will sell at reasonable prices. Address:

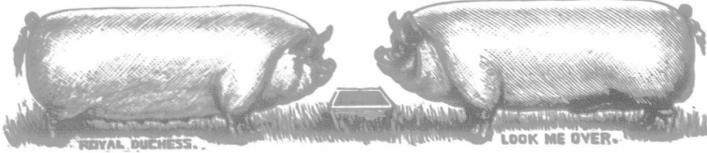
ROBT. HUNTER,

Manager to W. W. Ogilvie, LACHINE RAPIDS, QUE.

PLEASE MENTION FARMER'S ADVOCATE.

Summer Hill Herd

HEADQUARTERS FOR THE IDEAL BACON HOG.



The largest herd of pedigree Yorkshires of the large English type in Canada. Purity of breed, size, and general excellence is my motto. One hundred awards with one hundred and five exhibits at 7 shows in 1899. A choice selection of young boars and sows of all ages for sale; also boars fit for service, and pregnant sows. Fifty breeding sows, of which 25 (twenty-five) are imported; also three imported stock boars bred by such noted breeders as Sanders Spencer and Philo L. Mills. Am also using two Canadian-bred stock boars, first prize at Toronto in 1898-99. Express charges prepaid. All stock carefully shipped and guaranteed as described. Telephone, Millgrove, Ont. Telegraph 254 Bay St. S., Hamilton, Ont.

D. C. FLATT, MILLGROVE, ONT.

EUROPEAN ADVERTISEMENTS.

Hampshire Down Sheep.

SPLENDID MUTTON. GOOD WOOL. GREAT WEIGHT.

This highly valuable English breed of sheep is unrivalled in its

Rapid and Wonderfully Early Maturity,

possessing, too, a hardness of constitution adapted to all climates, whilst in the quality of

MUTTON AND LARGE PROPORTION OF LEAN MEAT IT IS UNSURPASSED.

Full information of

JAMES E. RAWLENCE,

Secretary, Hampshire Down Sheep Breeders' Association, SALISBURY, ENGLAND.

W. W. Chapman,

Secretary of the National Sheep Breeders' Association, Secretary of the Kent or Romney Marsh Sheep Breeders' Association, and late Secretary of the Southdown Sheep Society.

Pedigree Live Stock Agent, Exporter and Shipper. All kinds of registered stock personally selected and exported on commission; quotations given, and all enquiries answered.

Address: FITZALAN HOUSE, ARUNDEL ST., STRAND, LONDON W. W. Cables—Sheepcote, London.

Maple Cliff Dairy and Stock Farm.

Ayrshires and Tamworths for Sale

1 yearling and 5 fall calves, and a number of heifers. Five Tamworth boars, fit for service, and 40 fall pigs.

R. Reid & Co., HINTONBURG.

Belvoir Shropshires

ARE AGAIN TO THE FRONT.

At the late Provincial Fat Stock Show they won as follows: First and third for wethers; second, ewe lambs; second, pen of three wether lambs; third, pen of three ewe lambs. First Am. Shropshire special, and sweepstakes best Shropshire; also first slaughter test for best as judged by butchers. This year again puts the Belvoir Flock at the head, winning first on foot, judged from the breeder's standpoint, and first on block, from consumer's standpoint, judged by outsiders. This year confirms previous records, and the Belvoir Flock to-day has the enviable record of winning more firsts for wethers and wether lambs at prominent shows in Canada and the U. S. than all the flocks of Canada and the U. S. combined.

RICHARD GIBSON, DELAWARE, ONT.

SHROPSHIRE SHEEP AND COLLIE DOGS. 200 Bronze Turkeys, the Emperor, the Duke, the Empress, 100 White Holland Turkeys.

W. H. BEATTIE, WILSON TOWN, ONT.

Shropshire Rams and Ewes

Newly imported from the greatest Friesian breeders. These fine rams and ewes are of the quality, Scotch and English, and are the best horses for sale at a low price, and in large numbers.

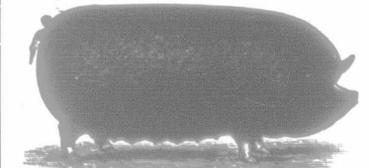
ROBERT MILLER, STUFFVILLE, ONT.

W. S. Hawkshaw & SON.

I have just landed with a fresh importation of Shropshire Sheep. These sheep were all bred before leaving England. We have also for sale Tanworth Swine and Am. Bronze Turkeys.

GLANWORTH, ONT.

LARGE ENGLISH BERKSHIRES.



Herd headed by five first-prize boars of large size and fine quality. Twenty-five young sows and ten boars for sale, bred from prizewinners. Pairs supplied not akin.

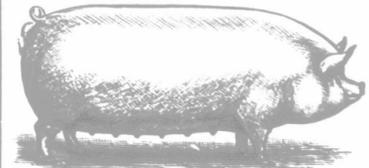
GEORGE GREEN, - FAIRVIEW P.O., ONT. om Telegraph and Station: Stratford, G. T. R.

SNELGROVE BERKSHIRES AND COTSWOLDS.

We can supply singly, in pairs, or trios, not akin, or in larger numbers, registered Berkshire pigs and Cotswold sheep of the highest class. Young boars fit for service, sows old enough to breed. Young pigs 6 to 8 weeks old. Ram lambs and ewe lambs. Write for prices and particulars.

SNELL & LYONS, SNELGROVE, ONT.

OAK LODGE HERD OF Large Yorkshires.



The oldest established and largest in America. Look up the record of this herd at the larger exhibitions—more prizes won than all others combined, sweepstakes over all breeds in class for bacon hogs two years in succession; winner of championship and gold medal at the Royal; also several prizewinning boars and sows personally selected from noted English herds. Oak Lodge Conqueror and Oak Lodge Challenge, two of the best boars in Canada, are in the herd. Stock from these boars are winners. Improve the quality of your pigs by securing some of the Oak Lodge blood.

J. E. BRETHOUR, BURFORD, ONT.

WOODSTOCK Yorkshires, Berkshires, Shorthorns

40 head of improved White Yorkshires. Boars and sows from 2 mos. to 9 mos. Sows in pig to imported boar. 20 head of choice Berkshires, same age. Six Shorthorn bulls from good milking strains. Address: om

H. J. DAVIS, BOX 290, WOODSTOCK, ONT.

DUROC-JERSEY SWINE.

We have a fine lot of all ages and either sex. Address, om

TAPE BROS., Ridgetown, Ont.

Few

BOARS for sale at a bargain; also sows. Also for sale about Jan. 20, 1900, a fine lot of the same breed as the first prize at the Provincial Fat Stock Show at Toronto in 1899. Also for sale at the same time, a fine lot of the same breed as the first prize at the Provincial Fat Stock Show at Toronto in 1899. Also for sale at the same time, a fine lot of the same breed as the first prize at the Provincial Fat Stock Show at Toronto in 1899.

R. H. HARDING, Mapleside Farm, THORNDALE, ONT.

Dominion Cattle Breeders' Association.

The annual meeting of the Dominion Cattle Breeders' Association was held in London, Ont., Dec. 11th, with President Jno. I. Hobson in the chair. The officers elected were as follows:—President, Richard Gibson, Delaware, Ont.; Vice-President, Arthur Johnston, Greenwood; 2nd Vice-President, Henry Wade, Toronto; Secretary, A. W. Westervelt, Toronto; Vice-Presidents for Provinces: Manitoba, Hon. Thos. Greenway, Winnipeg; Northwest Territories, C. W. Peterson, Regina; Quebec, H. D. Smith, Compton; Nova Scotia, C. A. Archibald, Truro; New Brunswick, T. A. Peters, Fredericton; British Columbia, W. H. Ladner, Ladner's Landing; Newfoundland, T. C. Dudder, St. John; Prince Edward Island, Senator Ferguson, Charlottetown.

Auditor—J. M. Duff, Guelph. Directors for breeds—Shorthorns, J. I. Hobson, Guelph; Herefords, Walter McDonald, Toronto; Polled Angus, Jas. Bowman, Guelph; Galloways, David McCrae, Guelph; Ayrshires, D. Drummond, Myrtle, Ont.; Holsteins, G. W. Clemons, St. George, Ont.; Jerseys, W. E. A. Massey, Toronto; O. A. C., Prof. G. E. Day, General Director, A. W. Smith, Maple Lodge, Ont. Messrs. Richard Gibson, David McCrae, and John I. Hobson were appointed a committee to investigate and endeavor to suppress fraudulent practices by exhibitors at live stock exhibitions.

J. S. Woodward, Lockport, N. Y., gave an instructive address on an "Ideal Dairy Cow." After showing that all domestic animals are now artificial, being far removed in characteristics from their original progenitors, he divided the cattle of the present day into "beef" and "dairy" animals, which differ widely. Breed, however, is immaterial, if the animal itself is good for the purpose desired. The ability of a cow to make milk depends on her capacity to eat, digest and to turn feed into milk. Dairy cattle eat, digest and turn their feed into milk in a higher degree than beef animals eat, digest and turn their food into beef. It was stated that the highest producing dairy cows have given in one day solids in milk an amount equal to 25 pounds of bone-free beef, which is far ahead of the daily produce of any beef animal. The highest producing dairy cows possess a well-developed nervous system. To such an extent is this true, that proprietors of some of the best herds make it a rule to exclude strangers from the stables during milking hours. By the aid of a chart the ideal form was shown the meeting. The address was much appreciated.

American Leicester Breeders' Association.

The annual meeting of the American Leicester Breeders' Association was held in London, Ont., on Tuesday, December 12th. In the absence of the President, D. C. Graham, Cameron, Ill., Vice-President A. W. Smith, Maple Lodge, Ont., presided. The president's address referred to the past year as being the most successful in the history of the association to its members in business done, and to the association in increased membership and number of entries. The secretary's report showed a balance of \$777.53. Communications were read from Chicago; Denver, Col., and Detroit, Mich., inviting the association to hold their next annual meeting, but a vote taken at the close of a discussion decided that it be held at the time and place of holding the Ontario Provincial Fat Stock Show. On motion of Mr. John Kelly, seconded by J. M. Gardhouse, it was resolved to increase the Secretary's salary 20 per cent., which raises it to 50 per cent. of the receipts of the association. It was resolved, on motion of the Secretary, A. J. Temple, seconded by J. M. Gardhouse, that the matter of giving a grant to the Chicago Fat Stock Show of 1900 be left in the hands of the executive.

The advisability of adopting a standard of excellence for the breed was discussed at considerable length, but since there are two decided types of Leicesters, viz., the Border and English, it was decided not to attempt a standard at the present time.

Messrs. J. M. Gardhouse, Wm. Whitelaw, and J. H. Grisdale, B. A., were appointed, on behalf of the association, to prepare a resolution of condolence to be sent to the bereaved families of their late lamented members, Messrs. Geo. Richardson, Benedict, Neb., and James Gaunt, St. Helen's, Ont.

Officers:—President, D. C. Graham, Cameron, Ill.; Vice-President, A. W. Smith, Maple Lodge, Ont. Directors—John Kelly, Shakespeare, Ont.; John Walton, Walkersville, Mich.; J. W. Murphy, Cass City, Mich.; C. E. Wood, Freeman, Ont.; J. M. Gardhouse, Highfield, Ont.

Hon. Vice-Presidents for States and Provinces: Pennsylvania—W. A. McCoy, Mercer, Ont. Ontario—A. Whitelaw, Guelph, Mich. Michigan—John Marshall, Cass City, Nebraska—Robert Taylor, Abbot, New Brunswick—M. H. Parlee, Sussex, Illinois—A. L. Wingate, Avon, Nova Scotia—S. P. Gandy, Yarmouth, Prince Edward Island—Wm. Stark, North Wiltshire, Quebec—Isaac Parnell, Lennoxville, Oregon—J. W. McKenney, Salem, Manitoba—Alex. D. Gamley, Brandon, New York—W. E. Scribner, Scholario, Massachusetts—H. D. Harriman, Saxonville; and Col. T. D. Burch, Chicago.

Mr. J. H. Grisdale, Agriculturist and Live Stock Experimenter, Central Experimental Farm, Ottawa, delivered a brief but comprehensive address on the history of the Leicester breed since they were taken in hand 150 years ago and set apart as a distinct breed. Bakewell in 1755 was spoken of as having raised them to a high standard, it is supposed chiefly by selection, but his methods were not given to the public. What Bakewell sought was excellence in fleece, as well as an improved quality of mutton, cheaply produced. It was claimed by Mr. Grisdale that the Leicester was the oldest long-wooled pure breed and had been largely used in the make-up of other breeds, such as Lincolns and Cotswolds. In concluding his address, the speaker expressed a hope that all breeders of cull sheep would help themselves into a better plane by using the blood of this early-maturing, quick-fattening breed of sheep.

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Dominion Swine Breeders' Association.

The annual meeting of the above association was held in London, Ont., Jan. 12th. President George Green, of Fairview, Ont., presided, and at the opening of the meeting gave an excellent address, in which he referred to the improvement taking place in hogs as seen in the various breeds at the exhibitions of the present day. He referred to the nomination of expert judges by the association as having great value. Reference was made to the credit packers are taking to themselves for the improved type of hogs being produced, but Mr. Green considers they could do much more effective work in that direction by paying a fair price for the right sort of pigs, but they evidently consider it cheaper to give advice free than pay more money. Mr. Green considered it would be well for the association to appoint a committee to investigate the methods by which the markets are conducted, and, if possible, to secure for the men who work hardest, and produce the best class of hogs, due remuneration. Owing to the low prices of hog products during the past season, it was pointed out, except for the favorable state of the dairy business, hog feeding would have been done at a serious loss. A continuation of low prices for hogs will drive a great many farmers out of the business. A favorable reference was made to the introduction of the block test, which Mr. Green considers will have a high educational value. Referring to the most suitable pig for the present demand, it was pointed out that it is more a matter of type than of breed. One of the breeds may be brought to a high standard of perfection if bred from proper selections, and then properly grown and fed.

Prof. G. E. Day, of Guelph Agricultural College, with the aid of charts showing illustrations of typical bacon pigs, and of a bacon side, showing the various cuts and prices obtained for same in Britain, gave a valuable address on bacon type, which we summarize along with a scale of points recommended by him in our stock department.

During the meeting the retiring secretary, Mr. F. W. Dodson, was read an address, signed by the presidents and secretaries of the Dominion Live Stock Breeders' Associations, congratulating him upon his promotion to a wider field of action as Live Stock Commissioner, and expressing their appreciation of the magnitude and excellence of the work accomplished by him in organizing and promoting the various associations with which he has been connected. Along with the address, in illuminated form, Mr. Hodson was presented with a full cabinet of solid silver table cutlery of very handsome design, as well as a beautiful granite clock presented by a number of personal friends.

In a feeling reply Mr. Hodson expressed his appreciation of the kindly utterances and valuable presents, which he said would be long cherished. He pointed out that many of the results credited to him were due in large measure to the substantial breeders of the country that have stood by the associations since their inception. He advised that the officers and directors must be wisely aggressive, and all that they do must be done with a view of doing the greatest good to the greatest number. The value to the country of the substantial importer and breeder was dwelt upon, which he claimed was not recognized or valued as it should be by Canadian farmers or rulers. These breeders introduce blood that helps every farmer that uses it to make more money out of his operations. Too often these great benefactors are not sufficiently remunerated for their valuable work. The effort of the associations should be to advance the interests of these men, which really means to help Canadian farmers as a whole. He contended that there was need of a thorough revision and reorganization of the Agricultural Fair system of Ontario, in order to greater efficiency and economy in the use of public funds. In view of the serious fact that the quality of Ontario horses, cattle, and sheep is not as good as it was twenty years ago, Mr. Hudson pointed out the need of more persistent effort on the part of Canadian breeders, as is exemplified by the owners of the great herds and flocks of Britain. It was claimed that we can produce as good animals in Canada as they can in Britain, but in order to do so we must cease vacillating and adopt the substantial British system of breeding.

The election of officers.—President, Wm. Jones, Zenda; Vice-President, G. B. Hood, Guelph. Directors: for Berkshires, Thomas Teasdale, Concord; for Yorkshires, J. E. Brethour, Burford; for Whites, R. H. Harding, Thornedale; for Poland-Chinas, Wm. Smith, Fairfield Plains; for Duroc-Jerseys, W. E. Butler, Dereham Centre; for Tamworths, Andrew Elliott, Galt; for Suffolks and Essex, Joseph Featherston, Streetsville; for Ontario Agricultural College, Prof. Day, General Director. Geo. Green, Fairview; Auditor, J. M. Duff, Guelph; Secretary, J. W. Westervelt, Toronto.

EXPERT JUDGES RECOMMENDED.

Berkshires.—H. J. Davis, Woodstock; J. C. Snell, London; Thos. Teasdale, Concord; George Green, Fairview; Robert Vance, Ida; T. A. Cox, Brantford; James Quirie, Delaware; Jos. Featherston, M. P., Streetsville; R. P. Snell, Snelgrove; Malcolm McArthur, Lobo; C. R. Decker, Chesterfield; Chas. Youngs, Brooksdale; William Jones, Zenda; D. DeCoursey, Bornholm; Geo. Thompson, Bright; Robert Gibson, Galt; R. H. Harding, Thornedale; Joseph Yuill, Carleton Place; Joseph Barnett, Rockland; Henry Glendinning, Manilla; E. E. Martin, Canning; Beverley Jeffs, Bond Head; William Linton, Aurora; E. Brien, Ridgetown; G. B. Hood, Guelph; J. E. Brethour, Burford; Alex. Hart, Hampstead; W. A. Shields, Milton; Geo. Hill, Delaware; S. Pangman, Vallantyne.

Suffolk and Essex.—Wm. Jones, Geo. Green, Thos. Teasdale, Jas. McGarvin, R. H. Harding, Jas. Main, Milton; D. DeCoursey, Bornholm; C. W. Yapp, Brantford; G. B. Hood, Streetsville; Jos. Featherston, M. P., Streetsville; Jas. Bray, Portage la Prairie, Man.; Wm. Jones, Geo. Green, Thos. Teasdale, R. H. Harding, D. DeCoursey, H. Jones, W. Tape, Ridgetown; H. George, Crampton; W. E. Butler, Dereham Centre; Geo. Bennett, Charing Cross.

Poland-Chinas.—Thos. Teasdale, Jos. Featherston; J. H. Shary, Croton; Jas. Main; Capt. A. W. Young, Tupperville; Geo. Green; Wm. Smith, Fairfield Plains; Wm. Jones; Oliver

Drury, Fargo; C. W. Yapp; R. Willis, Glen Meyer.

Yorkshires and Tamworths.—N. M. Blain, St. George; A. Dunn, Ingersoll; J. H. Simenton, Chatham; G. North, Marden; A. Elliott, Galt; L. F. Master, Haysville; A. C. Hallman, New Dundee; J. Bell, Amber; D. G. Hanmer, Burford; John Nichol, Hubrey; Jos. E. Brethour; H. Caldwell, Orchard; W. Elliott, Hamilton; C. C. L. Wilson, Ingersoll; F. C. Fearman, Hamilton; Andrew Laurie, Gilverton; Wm. Davies, Toronto; Richard Gibson, Delaware; Henry Dedels, Kossuth; G. B. Hood, Jos. Featherston, M. P.; H. E. Sharp, Ida; A. F. McGill, Hillsburg; J. G. Muir, Howick, Que.; J. M. Hurley, Belleville; Geo. Gier, Grand Valley; James Stephen, Trout River, Que.; R. McLellan, Harriston; Joseph Pfelecher, Oxford Mills; Robert Nichol, Brussels; A. and F. Foreman, Collingwood; J. Y. Ormsby, Woodstock; Jas. Leach, Toronto; Wm. Howe, North Bruce; Chas. Yapp; G. E. Day, Guelph; F. Shore, White Oke; H. J. Davis; D. C. Flatt, Millgrove; W. R. McDonald, Ridgetown; Wm. Elliott, Galt; R. G. Martin, Marysville; J. C. Cousins, Harriston; Geo. Green; F. W. Hodson, Ottawa; Prof. Grisdale, Ottawa; Robt. Robertson, Napan, N. S.; J. W. Calbeck, Augustine Cove, P. E. I.; J. G. Clark, Ottawa; J. C. Smith, Hintonburg; D. Drummond, Myrtle. **Chester Whites.**—Wm. Jones, J. C. Snell, Geo. Green, D. DeCoursey, R. H. Harding, W. E. Butler, G. B. Hood, Prof. G. E. Day, Thos. Teasdale, Gideon Snyder, H. Jones; Jos. Cairns, Cambschie; Jos. Featherston, M. P.; Thos. Brooks, Brantford; G. Bennett, W. Tape, J. E. Brethour; J. C. Nichol, Hubrey.

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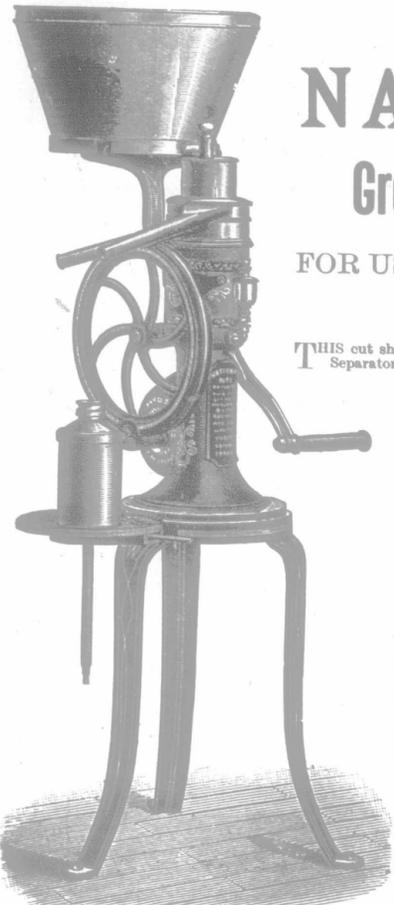
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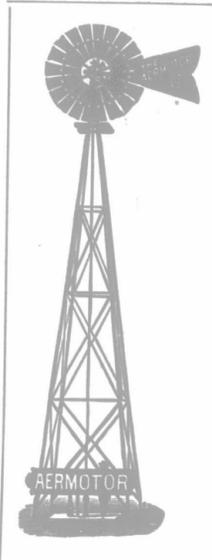
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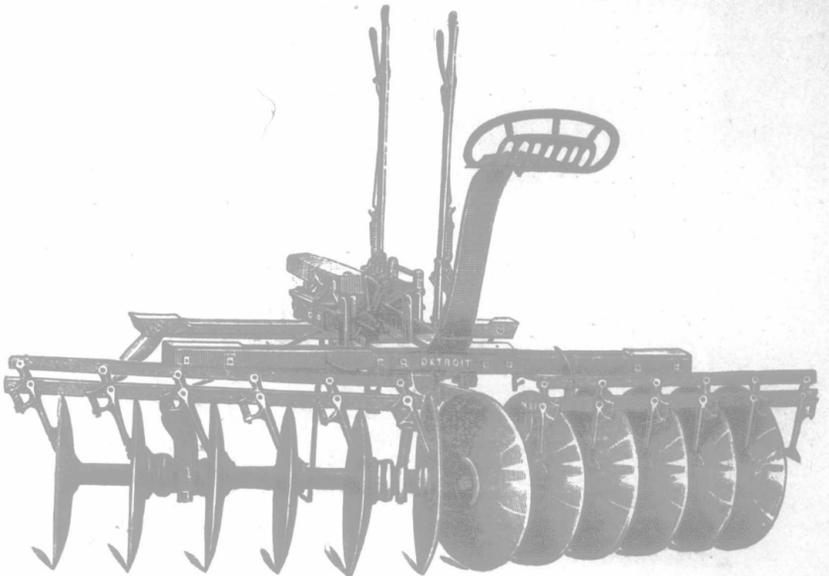
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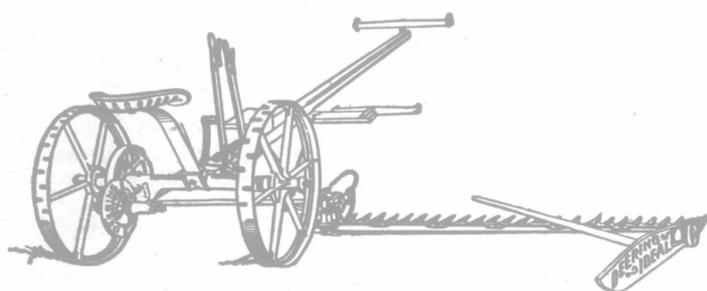


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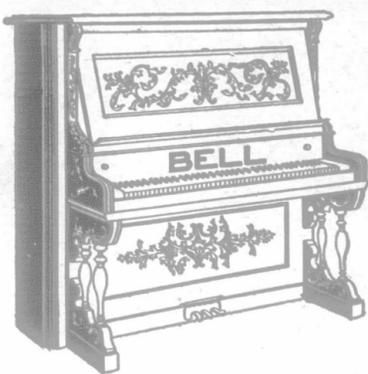
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