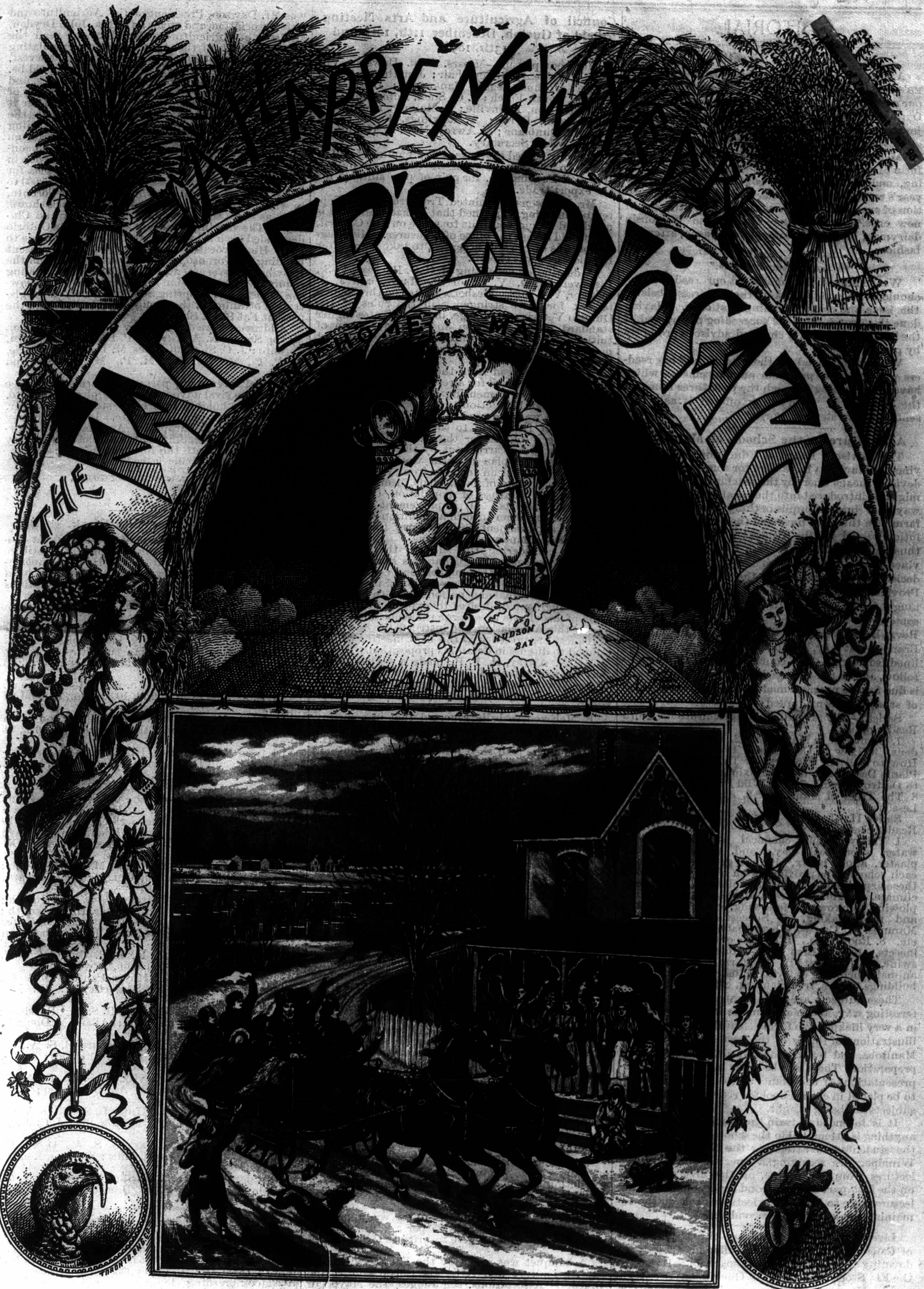


THE FARMER'S ADVOCATE



THE CANADIAN FARMER'S SLEIGH-RIDE PARTY.

EDITORIAL.

New Year's Greetings.

A pictorial New Year's greeting from the FARMER'S ADVOCATE to all its readers takes the place of our accustomed live stock illustration in this issue. Our artist has evidently caught the inspiration of a jovial holiday scene on a Canadian homestead.

Thanks are due our readers for the host of seasonable greetings we have been receiving in the form of renewals and new subscriptions. It is cheering, and we bespeak its continuance. Another year's work is upon us, and we desire the co-operation of every old friend and a strong contingent of new ones. Ex-Governor Hoard, the Wisconsin dairyman, breaks into song at this season, after this fashion:

"Come, let us renew,
And our journey pursue."

We commend this motto to our readers, who should, without fail, look up their address labels on this issue and remit accordingly at once. Having done this, watch the next succeeding paper, and if the label is not properly changed, advise us promptly by post card.

We also commend to the attention of our readers and agents the premium announcements which have been running through the past three issues of the ADVOCATE. Everything offered is as represented, and of sterling worth.

Agriculture in the Schools of Manitoba.

The Advisory Board of Education for the Province of Manitoba have been for some months past devising means whereby the teaching of agriculture might be introduced into the rural schools in such a way as to interest pupils in things pertaining to the farm. In this they have had the backing of a resolution passed by the Central Farmers' Institute, thus showing that the leading farmers of the Province are in favor of such a step; and also by the decision arrived at during the last session of the Provincial Legislature, that agriculture should be taught in the schools. In the FARMER'S ADVOCATE some issues ago we published the address given by Rev. Dr. Bryce before the Central Institute in Brandon last July. In that address the Doctor outlined somewhat the course it was proposed to follow, and to the reverend gentleman much credit is due for the progress made. The following course of study has been adopted:—

Series I.—Short readings in agriculture for Third Reader pupils:

1. Plant Life in Manitoba. 2. Flowers and Gardens. 3. How to Collect and Preserve Plants. 4. How to Tell the Flowers. 5. Thirty Best Known Plants Described. 6. Ten Noxious Weeds and How to Destroy Them. 7. The Wild Fruits of Manitoba. 8. The Trees of Manitoba. 9. Arbor Day and Its Lessons.

Series II.—Lessons in agriculture for Fourth Reader classes:

1. Thirty simple chemical experiments: Air, water, wood, coal, clay, sand, ashes, salt, lime plaster, alum, borax, blue and green vitriol, etc.; each school to be provided with a box sufficient for these experiments for \$4. 2. Soils and influence of climate. 3. Tillage—Preparations of the prairie: plowing, harrowing, fallowing, etc. 4. Drainage and road-making. 5. Succession of crops. 6. Manures. 7. Crops—Wheat, oats, barley, grasses, etc. 8. Root crops. 9. Disease of crops—Parasites, insects, etc. 10. Live stock—Horses, cattle, sheep, swine, etc. (illustrated). 11. Farm management of animals, including dairying (illustrated). 12. Farm buildings, fences, tree planting, etc. (illustrated).

These subjects are to be treated in a simple, interesting way, and placed in the hands of scholars in a very inexpensive form. An album containing illustrations of thirty of the best known plants of Manitoba, and ten noxious weeds, is in process of preparation. These will be made in colors, exact representations of the plants and flowers, one album to be placed in each school for reference when these subjects are being taught.

It is intended to train the teachers first, before anything is attempted in the schools, and to this end the students now attending the Normal School in Winnipeg are receiving a special course of ten lectures from Dr. Bryce, on the first series and on the first part of the second series, and two other lecturers are to deliver five lectures each on the remaining subjects of the second series.

Live stock husbandry being the sheet-anchor of Canadian farming, we need offer no apology for devoting a large share of our space in this issue to the Fat Stock Show held at Guelph on Dec. 11, 12 and 13. It was more than a "fat stock" exhibition, breeding interests being strongly represented, as our reports indicate.

Council of Agriculture and Arts Meeting, held at Guelph, December 11th, 12th and 13th, 1894.

Members present—Messrs. Wm. Dawson, Victoria (President), in the chair; Jonathan Sissons, Barrie; Joshua Legge, Gananoque; D. P. McKinnon, South Finch; J. C. Snell, Edmonton; W. J. Westington, Plainville; B. Mallory, Frankford; R. McEwen, Byron; A. Rawlings, Forest; Jas. Rowand, Dunblane; N. Awrey, M. P. P., Hamilton; and H. Wade, Secretary.

It was resolved that a second premium of \$10 be added to the special prize of \$25 given by the Ingersoll Packing Co. for pair of pigs suitable for the export trade.

Mr. J. Sissons, appointed Treasurer at the September meeting, explained that he had changed his mind and would continue to serve on the Council, and would resign the office of treasurer. His resignation was afterwards accepted, to take place after his successor was chosen.

A deputation consisting of C. G. Burgess, V. S., Listowel; Gibbs, V. S., of St. Marys, and J. J. Walker, V. S., of Londesboro, waited on the Council to ask for more stringency in the rules of the Ontario Veterinary College, in the way of a higher standard of matriculation and a longer term of tuition, and promised to formulate before the next meeting of the board a series of rules and regulations.

A letter was read from the Hon. John Dryden, thanking the Council for a resolution passed at the last meeting, complementing him on the success of the Columbian Exhibition.

A letter was also read from D. M. McPherson, M. P. P., of Lancaster, to the following effect:—Submitting a scheme for the reclamation of poor farm lands to be carried out by the Council: By (1) an improved plan of farm work as to cause greater profit, and an increase from year to year. (2) Increased value of farm lands in all the older districts. (3) Increase of population throughout the rural districts. (4) Improvement of public roads, making them in such a condition as to place them on a permanent basis to carry the ordinary traffic of the country in all seasons.

After considering the subject, the following resolution was passed:—"That this Board, having considered the valuable suggestions contained in Mr. McPherson's letter, re resolution of poor farms, by which individual and national wealth would be largely augmented, desires to express its appreciation of his efforts to enlarge the scope and usefulness of this Association, and instructs the Secretary to request his presence at the next meeting of this Council to discuss in detail his proposition."

Mr. N. Awrey, M. P. P., made a verbal report that he had attended for two days at the Deep Water Ways meeting, and thought it was too large a scheme to be carried out by anything but the Government.

R. McEwen verbally reported that in company with Dr. A. Smith, Dr. Warren Green and H. Wade, Secretary, they waited on Lt. Col. Otter, D. A. G., to ask for the drill shed for one week to hold our spring horse show in, and he promised to see the different commanding officers of the Toronto regiments, and if their consent could be obtained, he would be pleased to let them have the building.

H. Wade explained that since then Mr. Broadmore, Master of the Hunt Club, and Mr. Houston, Secretary, had waited on him and expressed their willingness to enter into partnership with this Association in giving a horse show, and would work up the saddle and driving horse part, and also promised to get the Society element to attend.

Mr. Awrey spoke in favor of such a show, and it was resolved that a special committee, consisting of Messrs. Awrey, McEwen, Snell and Wade, be appointed, with power to make arrangements for such a show at the new drill shed or elsewhere.

Mr. John I. Hobson, of Mosboro, was appointed auditor on behalf of the Association.

The reports of the three Provincial Ploughing Matches were read; one from D. P. McKinnon, of South Finch, for districts Nos. 1, 2 and 3; one from J. C. Snell, of Edmonton, for district No. 6, held at Markham; and one by A. Rawlings, of Forest, for districts Nos. 10, 11, 12 and 13, held at Petrolia.

The Finance Committee (R. McEwen, Chairman) then made their report, passing all accounts rendered to date, also accepting Hunter-Rose's tender for printing the 8th Volume of the Clydesdale Stud Book, and giving the estimate of requirements from the Ontario Government for 1895:

Spring Stallion Show	\$ 2,000 00
Fat Stock Show	1,500 00
Printing Stud Book	1,050 00
Ploughing Matches	600 00
Council Expenses	400 00
	\$ 5,550 00

Also a special grant of \$1,000 for an exhibition of dairy cattle, products and appliances, the said exhibition to be held in Eastern Ontario, as an equivalent to the Fat Stock Show at present held in Western Ontario.

Mr. David Kirkwood, of Brampton, was appointed treasurer at a salary of \$125 per annum, without expenses, and that he give security to the extent of \$5,000.

A banquet was given by the Fat Stock Club to the Agriculture and Arts, the Sheep and Swine Breeders' Associations, the Judges, the Mayor of the City, and other honored guests, at the Western Hotel. Mr. James Miller, President of the Guelph Fat Stock Club, occupied the chair. On his right

was Mr. Dawson, President of the Agriculture and Arts Association, and on his left, Hon. John Dryden, Minister of Agriculture. Mr. Dawson read the annual address of the Association, congratulating the farmers of Ontario upon the good harvest, although the prices were not what they should be. The Association had an existence of 48 years, and was an institution which had been the cradle of agriculture and arts in the Province, and to it must be credited to a very great extent the progress which has been made by the farming community. It had also developed the importation of cattle and horses from the Motherland, and consequently the improvement of all classes of stock in the Province. Mr. Dawson made a strong plea for a large building, with a seating capacity of 5,000 to 10,000, in some central place like the City of Toronto, in which could be held horse and fat stock shows, such as were so successful in New York and Chicago. The vast importance of agriculture in Ontario demanded such a building, and it could be made to pay. He advocated the selling of their present building in Toronto, and, with some aid from the Provincial Government, put up the kind of building required, with provision for offices, etc. Mr. Dawson reviewed the Spring Stallion Show, the registration of animals, the ploughing matches and the present Fat Stock Show.

Addresses were delivered by Hon. John Dryden, Mayor Smith, N. Awrey, M. P. P., Ald. Crawford, Toronto; J. C. Snell, J. Innes, M. P., Major Mutrie, M. P. P., Mr. Rowand, M. P., Mr. Sissons, and others.

Several interesting passages at arms took place between the rival advocates of Guelph and Toronto, as places for holding future fat stock shows. Mr. Mortimer Levering, Lafayette, Ind., Secretary of the American Shropshire Association, humorously capped the climax at the close of a very amusing speech with the following words:—

They talk of cities in the West,
And cities by the sea;
But this bright, busy town of Guelph,
Is good enough for me.

(Laughter and cheers.)

Farmers' Institute Work.

The December 15th issue of the FARMER'S ADVOCATE contained the complete list of Institute meetings arranged by Mr. F. W. Hodson, superintendent, for the January series. Since then local authorities have found a few minor alterations necessary.

Division I.—Tara, hour of meeting changed from 1 p. m. to 10 a. m.

Division II.—Coldstream and Iderton, fixed for the 19th and 21st, respectively, instead of vice versa.

Division III.—Port Rowan substituted for Port Dover, on Jan. 3, and Vittoria for Port Rowan, on Jan. 4.

Division IV.—Pelham, 10 a. m., instead of 1 p. m.

Division V.—Owen Sound, 10.30 a. m., instead of 1 p. m.

Division VI.—Collingwood, meeting on 15th alone, not on 15th and 16th; Stayner, on 16th, at 10 a. m.

Division X.—Vankleek Hill, 1 p. m. on 3rd., instead of 4th; and Duncanville, 1 p. m. on 8th, instead of 9th.

THE STAFF OF SPEAKERS.

We give below a list of the speakers to be sent out for each division. The staff appears to be a strong one, and the topics well chosen. The subject of "Good Roads" and "Roadmaking" have advocates in every division except IV. and IX. The speakers are:—

Division I.—John McMillan, M. P., Seaforth; Alex. E. Wark, Wainstead, Ont.; James Sheppard, Queenston.

Division II.—Wm. Rennie, O. A. C., Guelph; A. McNeill, Windsor; Alf. Hunter, Harrowsmith; Isaac Usher, Thorold. Messrs. Hunter and Usher will divide the meetings in No. 2 division between them.

Division III.—Prof. J. H. Reid, Guelph; A. H. Pettit, Grimsby; Wm. Dickson, Atwood.

Division IV.—Prof. J. Hoyes Panton, O. A. C., Guelph; Thos. McMillan, Seaforth; W. W. Hilborn, Leamington.

Division V.—T. G. Raynor, B. S. A., Rosehall; Joseph Yuill, Carleton Place; Allan McDougall, Toronto.

Division VI.—Prof. Geo. Harcourt, B. S. A., St. Ann's; Robt. Thompson, St. Catharines; A. W. Campbell, St. Thomas.

Division VII.—C. A. Zavitz, B. S. A., O. A. C., Guelph; D. E. Smith, B. A., Brampton; J. F. Beam, Black Creek.

Division VIII.—H. L. Hutt, B. S. A., O. A. C., Guelph; I. W. Steinhoff, Sebringville; J. C. Judd, Morton.

Division IX.—G. E. Day, B. S. A., O. A. C., Guelph; L. Patton, Oxford Mills; Simpson Rennie, Milliken.

Division X.—Prof. A. E. Shuttleworth, O. A. C., Guelph; Wm. S. Fraser, Bradford; P. Mahon, Aberfoyle.

The Breeders' Outlook.

"Now the sheep business is again improving, it will be at a short time until its volume will be as great as two years ago. It is not premature to predict that the sheep industry, the horse business, and live stock breeding in general, will attain unprecedented prosperity in the near future."—From the address of Mortimer Levering, before the Sheep and Swine Breeders' Association, at Guelph.

Why Canadian Records are Not Recognized by the U. S. Authorities.

We announced in the December 15th issue of the *ADVOCATE* the result of the negotiations between the Dominion and United States Governments, through the Imperial authorities, regarding the recognition of our live stock records by the U. S. authorities. We give herewith a copy of the report of the Minister of Agriculture to His Excellency in Council, and also a copy of the reply containing the decision of the U. S. Treasury Department in answer to the requests made. It is not pretended that the Canadian standards are not up to the mark, but the Canadian books were left out simply because it was "the wish of the different Live Stock Associations in the United States."

THE MINISTER OF AGRICULTURE TO HIS EXCELLENCY.

The undersigned has the honor to report that:—He has been moved by representations made by the Select Standing Committee on Agriculture and Colonization of the House of Commons, during the last session, and also by representations made to him by a deputation from the several Live Stock Associations of the Dominion, to call the attention of Your Excellency to the United States Treasury Orders relative to the importation of pedigree stock into the United States.

The Orders issued in January and May, 1892, and in March, 1893, contain lists of Herd Books recognized and published in the United Kingdom, the Colony of New Zealand, the Turkish Empire, France, Belgium, Germany, Algeria and other places, while the Canadian Herd and Stud Books are omitted.

The omission of the Canadian Herd and Stud Books, which previously had always been officially recognized by the United States Customs authorities, has caused surprise and disappointment to breeders of stock in Canada, the result of such action being that no pure-bred stock from Canada could be admitted into that country, from the date of such omission, without having been previously registered in records kept in the United States.

It was intimated to the undersigned by the deputation from the several Live Stock Associations of Canada, above referred to, that the Secretary of the Treasury of the United States, the Hon. Charles Foster, on being communicated with on the subject, admitted that the Canadian books had been left out, for the reason, not that the standards of the Canadian Stud and Herd Books were not up to the desired mark, but that such was the wish of the different Live Stock Associations of the United States.

It has been represented to the undersigned that the standard of the Dominion Shorthorn Herd Book is even higher than that of the United States.

The Shorthorn Breeders' Association of the United States recognizes the Dominion Herd Book and permits transfers from it for registration in the United States.

The same may be stated as regards the Dominion Clydesdale Stud Book.

The omission in the Orders of the United States Treasury Department, mentioned, in view of the facts stated, is found to be unjustly discriminating in its relations to Canada.

The delegation of gentlemen interested in the different Live Stock Associations of the Dominion urge that representations be made by Your Excellency, through the British Minister at Washington, to obtain, if possible, an amendment of the Orders of the United States Treasury Department, in such way as to place the Canadian Herd and Stud Books in the same position as those of other countries, and the British Colony of New Zealand, as respects recognition of standards of excellence, as formerly.

The undersigned, therefore, recommends that Her Majesty's Minister at Washington be requested to make representations in the sense of this report, if approved, to the proper officer.

The whole respectfully submitted.

A. R. ANGERS,
Minister of Agriculture.

Department of Agriculture,
Ottawa, 10th August, 1894.

MR. GOSCHEN TO THE EARL OF ABERDEEN.
Washington, 25th Oct., 1894.

My Lord,—On the receipt of despatch No. 43, of the 6th ultimo, respecting the omission of Canadian Herd and Stud Books from lists of recognized Herd and Stud Book contained in Orders issued by the U. S. Treasury, relative to the importation of pedigree stock, I immediately wrote to the Secretary of the Treasury on the subject, and while asking for an explanation of the omission, expressed the hope that the books in question might obtain his official recognition, which has heretofore been granted to them in the United States.

I have now the honor to transmit herewith a copy of a letter addressed to me by the Acting Secretary of the Treasury in reply, which contains a statement made by the Secretary of Agriculture in explanation of the omission in question.

Your Excellency will perceive from this statement that there is apparently no discrimination against Canada in the rules laid down in the Department of Agriculture with regard to the registration of stock, and that if Canada has any pure-bred stock which originates in the Dominion, and the record books are brought to the attention of that Department, they would be considered and accepted

or rejected in the same principles as those applied to the record books of any other country.

I should be much obliged if Your Excellency would inform me whether the explanation given by the Agricultural Department is satisfactory to your Government, or whether they have any further considerations to urge such as would be likely to induce the United States Government to modify their rules with regard to this subject.

I have, etc.,
W. E. GOSCHEN.

FROM THE U. S. SECRETARY OF AGRICULTURE.
Treasury Department, Oct., 16, 1894.

Sir,—Referring to your letter of the 14th ultimo, I have to state that the Department has received from the Secretary of Agriculture the following explanation of the omission:—

"It was decided, after full consideration, that no registers of the American Continent should be recognized except those of associations located in the U. S., unless such registers were for breeds of stock originating in the country where the record was established. There are, consequently, no South American, Central American, Mexican or Canadian registers on the list. There is no special discrimination against Canada. If Canada has any breed of stock which originated in that country, and the record books are brought to the attention of this Department, they should be considered and accepted or rejected on the same principles which are applied to the record books of any other country. If their breeds are all of European or U. S. origin, the breeding of the animals should be decided by European and U. S. record books.

"The registration in a U. S. Association causes no hardship to the Canadian breeder of pure-bred stock. As is admitted in the report of the Privy Council, the principal associations of Canada and the U. S. recognize each others' registers and permit transfers of pedigree under proper regulations and supervision. There is no delay or difficulty attending the matter if the breeding is all right. I have heard of no case where registry has been refused to Canadian stock which was properly vouched for, nor do I believe that such could occur. The Associations have their fixed and printed requirements for registration, and when those requirements are complied with the registration could not be refused."

S. WIKE, Acting Secretary.
MR. W. E. GOSCHEN.

The Outlook for Canadian Dairying.

SIR,—I consider the outlook for the dairy business a fairly satisfactory one. The prices of butter and cheese have, in a great measure, escaped the general depreciation in the values of farm products. Throughout Canada, the farmers have been increasing their output of milk by enlarging the capacity of the individual cows, by keeping more cows per farm, and by feeding these at less cost per head, through the growth of bulky, nutritious, cheap fodders. Indian corn is the main one of these, and horse beans (notwithstanding the lack of success which has attended the experiment of growing the crop in the hands of some Ontario farmers) are becoming a valuable supplement to Indian corn fodder. On the Experimental Farm here during the past season we had over twelve tons, green weight, of horse beans per acre, and that on a hardly suitable piece of ground, in an unfavorable season. In all the provinces of Canada, dairying is making substantial progress.

ONTARIO.—Notwithstanding the dry weather of August, with its consequent short pastures and shrinkage of milk, the output of cheese will be larger than that of last year. Throughout the season there has been a general averaging up of the quality in the districts that have been most backward. The winter dairying movement is making rapid headway. Although I have not the exact data available, I think probably fifty winter butter-making factories will be in operation in places where cheese was made during the summer. This is a speedy and yet solid outgrowth from the two solitary Dominion Dairy Stations started under the care of the Dairy Commissioner in the fall of 1891. The Dairy School at Guelph is reported as having a full class of students, and the influence of these throughout the Province will be such as to maintain a further improvement in the quality of the cheese and butter. A new Dairy School, being the first branch in the Agricultural Department of the School of Agriculture and Mining at Kingston, was lately opened. It is under the direction of the Dominion Dairy Commissioner, with Mr. J. A. Ruddick in personal charge as superintendent, and Mr. L. A. Zufelt and others as assistants.

QUEBEC.—The inspectors of the syndicates of cheese factories and creameries throughout the Province have been doing capital work, and the quality of the cheese from the Province shows a marked improvement over that of former years. The need of the cheese business in Quebec is that in many places several small factories should be consolidated into one well-built, well-equipped, well-managed factory, supported by from 750 to 1,000 cows.

The creameries throughout Quebec have had a fair output, but the low prices and dull tone which have prevailed in the British butter markets have left the prices for finest creamery butter, on this side,

lower than usual. It seems necessary to the success of the creamery movement in Canada, that larger and adequate cold storage accommodation be provided within easy reach of the several creameries. The British market refuses to pay more than a third-rate price for any butter which is stale or off-flavored, and during recent years the price from May till October has been too low to permit our shippers or creamerymen to accept them and hold their own. Where butter is held at or about the freezing point from within a day or two after it is made, it might be put on the British market in excellent condition during October, November and December, before the supplies from New Zealand arrive, and before the winter-made butter from Canada could reach the British consumer. The Dairy School at St. Hyacinthe is still doing excellent work, and the outlook is that it will pass as many students through its courses this winter as it did last year, when the number was 268. A new winter dairying station has been started at Lennoxville, Que. The winter dairying movement has been fostered by the Provincial Government through grants equal to:—

Five cents per 100 lbs. for milk supplied to a butter factory during November; 10 cents per 100 lbs. for milk supplied to a butter factory during December, and 15 cents per 100 lbs. for milk supplied to a butter factory during January.

In all the Maritime Provinces co-operative dairying has now obtained a firm foothold.

NEW BRUNSWICK.—A Dairy School was conducted at Sussex, N. B., last spring, for instruction in cheesemaking. Mr. J. E. Hopkins, of the Dairy Commissioner's staff, was in charge. As a result of the instructions given there, followed up by the work of the travelling instructor for the Provincial Government of New Brunswick, the quality of the cheese from that Province was very much improved. A travelling dairy was sent throughout the Province from the Dairying Service of the Dominion Department of Agriculture. It visited some sixty-eight places, and the Provincial Dairy Instructor is continuing similar work on behalf of the Provincial Government.

NOVA SCOTIA.—Many new cheese factories and creameries were erected and operated during the year. The Provincial Government made provision for paying a bonus of \$400 to two new and first factories in every county, payments to be spread over two or three years. The Dominion Dairy Station is being continued at Nappan, N. S., and butter is being made there throughout the present winter.

PRINCE EDWARD ISLAND.—From the modest and timid beginning, with one Dairy Station in 1891, the work of the Dairying Service has grown until during 1894 sixteen cheese factories and two creameries were run during the summer, and three creameries are being run during the winter. The value of the output from these factories for the season will be about \$100,000.00. The growing of fodder corn for cattle, which was almost unknown in 1890, is becoming general among the farmers of the Island. Horse beans do well where they have been tried, and coming years are likely to find Prince Edward Island producing as large quantities of cheese and butter per square mile as any county or other province in the Dominion.

MANITOBA AND THE NORTHWEST TERRITORIES.—Two travelling dairies were maintained as agencies of the Dairying Service in the western part of Canada. A creamery was also managed at Moose Jaw, N. W. T., as a Dairy Station. Notwithstanding the hot, dry weather, which fairly parched the crops and pastures, a fair supply of milk and cream was furnished by the patrons, and the probabilities are that the quantity will be doubled next year, and will reach at the flush of the season about 600 pounds of butter per day.

Through the Manitoba Dairy Association and the Central Farmers' Institute, the Provincial Government gave help to the maintenance, for a short time, of a provincial travelling dairy.

GENERAL.—As competition from all quarters increases, the prices of cheese and butter may be pushed somewhat lower than they have been; but at the present time the consumptive demand for the finest qualities of these appears to be increasing faster than the means of supplying it.

JAS. W. ROBERTSON, Dairy Commissioner.

A Big Load of Wheat.

A novel way of raising the wheat market is described in the *Carberry News*, of a recent issue, as follows:

"Farmers often talk of hauling big loads of wheat to market, and often 100 to 150 bushels were brought from Petrel. But Wellwood now carries off the palm, and Thomas McGregor is the man who brought in one load of wheat which weighed 500 bushels, or the largest load ever brought to Carberry market. For fear some doubting farmer would say this was an exaggeration, we will explain. Mr. McGregor loaded up seven wagons, hooked them all together and hitched on his traction engine, with a supply of wood and a well-filled tank of water, and soon came rattling into town, a distance of 13 miles. The buyers swooped down on him, like so many hawks on a chicken, with their usual bid of 38 cents. Tom was no chick, and the bid was no good. He asked 40. Soon 39 and 40 was offered, but Tom rattled along, and it is said that an advance on the price was paid. However, J. J. Armstrong got the load, and Mr. McGregor realized about \$18 more than if he had hauled it in in single loads."

The Ontario and Chicago Fat Stock Shows in Contrast.

BY R. GIBSON.

The fat stock at Chicago was decidedly disappointing from a cattleman's point of view. In the first place, he was made to feel like an intruder as soon as within the doors; for it was evident at first glance that the stock were only a side-show to the big circus, and this did not materialize as expected. The "bon ton" with the four-in-hands did not turn out a la Madison Square Garden. The reserved boxes were not filled with Chicago first families, so the stale old Hippodrome and Racing Dogs fell flat upon the old habits of these shows. But to the show proper. Comparing it with Guelph, I find that there were 48 head of cattle at Chicago, against 55 at the latter:—Shorthorns, 13 to 12; Herefords, 8 to 4; Angus, 7 to 2; Galloways, 0 to 4; Devons, 8 to 2, and Grades, 12 to 31.

Now, as to quality, Guelph decidedly leads in the Shorthorn class. Both the white steers in two-year-old class were decidedly better than any shown in Chicago, as is also Crerar's white heifer. The best of the lot was the over-done Whiskers, owned by that inimitable showman, "Billy Potts," a decided steal both in his class and again in Sweepstakes. Smith's steer, though 95 days younger, scales within 36 lbs. as much as Whiskers, and was smoother and leveler all over. Oke's Snowball was also a better steer, inasmuch as he was not loaded down with blubber, but carried plenty of natural flesh of firm quality, evenly distributed; and when it comes to real quality and neatness, the greatest weight in smallest superficies, Crerar's white three-year-old daughter of Indian Chief was decidedly superior to anything shown at Chicago, except, possibly, the two crack Herefords, and they would have had to be looking and feeling at their best, as she was just as neat and sappy, but lacked a little in handling.

In Herefords, Chicago decidedly leads, as I consider Cherry Brandy one of the best I have ever seen, and he only just beats H. Fluck's Percy (who did not show well at first, being off his feed and feverish in feet), the latter having the thicker loin, but is a trifle bare on shoulder; but they were a grand pair.

There were no Galloways at Chicago; had there been it would have taken a gem of the first water to have beaten Kough's heifer. In my opinion, the best and most profitable butcher's animals on exhibition were grades. While in these classes, at Chicago, Hereford grades won all before them, at Guelph Shorthorns did the same. The Hereford two-year-old would have been a worthy competitor of Rennie's heifer (weighing near 1,700 lbs., and sold for \$130), and the issue would be very doubtful, but in the younger classes Chicago decidedly scores; no such youngster as Van Natta's Tom Reid was to be found.

SHEEP.

As far as sheep are concerned, Guelph fairly smothered the Windy City. Take away the Ontario exhibit from Chicago,—what remains? Not a single ribbon. Not a third prize could have been won at Guelph by any American sheep shown at Chicago—except the Merinos had a class to themselves, and then they would have had no competition. John Rutherford, who did so well West, had to be content with five firsts here, against 17 there.

SWINE

Would be hard to compare. In numbers, I should think the Guelph entries, 240, would be more than three times as many, and, as far as I am capable of judging, the quality fully equal to anything there. Todd's young Chester Whites were certainly very fat—fatter than anything here; but of what avail; they would not fetch more than three cents a lb. in the market here, our buyers wanting something besides lard.

In summing up, Guelph had decidedly the better show. While honors were easy as far as cattle are concerned, in sheep and swine our cousins were not in it. Now, why is it that Chicago can't get up a show equal to the Royal City? Some will say because feeders did not have sufficient notice, and that they did not prepare. My own opinion is that the management is all wrong, and that as long as it is tacked on to the tail end of a horse show, it can never rise to the dignity of a Smithfield or a Guelph. Let a fat stock show be run entirely on its own merits; then, if the people of Chicago won't patronize it, move to some less pretentious city, and then let it die the death it deserves if still unsuccessful. If the West can't interest the people sufficiently without introducing the catch-penny, stale jumping exhibitions, let the East try, but never let it go forth to the world that a stock show cannot be held in the U. S., successfully, unless a circus performance is made the chief attraction. That it is so looked upon at Chicago is pretty evident, for the anathemas were just as loud and just as deep from the heavy horse stables as from the cattle pens. They were not an attraction, consequently were not paraded in the ring, and being stabled in dark stalls, in such out-of-the-way places, many were never seen by the public.

STOCK.

Essays on Swine Breeding and Management Criticized.

BY MR. J. C. SNELL, BEFORE THE DOMINION SWINE BREEDERS' ASSOCIATION, AT GUELPH.

When I was elected critic of the Essays on Swine Breeding and Management, in our report for 1893, I feared I had not been assigned a pleasant task, but I am glad to find so little room for adverse criticism, because I would at any time rather commend than complain. Yet, there are a few points in some of the papers upon which there are honest differences of opinion amongst practical men, and I think it is well to refer to some of these, with a view to drawing out discussion upon them, and of possibly reaching a conclusion which may be generally satisfactory and safe; and here let me say that if I make no reference to some of the essays, it is not because I consider them unworthy of notice, but because they are so good as to be beyond criticism.

RIGHT STAMP AND RIGHT MANAGEMENT.

The first paper on the list is that of my friend James Anderson, of Guelph, whose views largely coincide with my own upon many points, and especially one, namely, that success in swine breeding for profit depends not so much upon the breed as upon the "right stamp" of the breed and the right management or treatment after you have secured the right stamp. There are bad, good, better and best in all the breeds, and if we all would favor "the survival of the fittest," and act as we believe, that the "best is none too good," almost any of the breeds can be so improved by selection as to come near enough to the desired type for all practical and profitable purposes, without engaging in a war of extermination, though perhaps not without bloodshed. It is refreshing to find a man who has the courage to run a tilt at the conclusions of the professors at the Agricultural College, and Mr. Anderson takes issue with them on the question of raw versus cooked food for fattening hogs. This is a question upon which there is much difference of opinion, and it would be well if it could be definitely settled which is the more profitable. I think it safe to say that one experiment is not sufficient to settle such a question, especially when the experiment is conducted by different men, one of whom may not have shown as good judgment in the manner of feeding as the other, for it is well known that one man, with the same kind and quantity of food, may by judicious feeding, as to regularity and distribution, produce very much better results than another man with the same facilities, who lacks in these essentials of management. Much also depends upon the style of the pigs, their disposition to take on flesh and to make growth.

While I have never made any carefully conducted experiments to settle this question, I am free to say, from what experience I have had, that it seems to have settled itself in my mind that as a rule it is more profitable to give the food in a raw state. When the extra labor and the value of fuel if taken into account, I am quite persuaded it will not pay to cook food for pigs, and I am not sure that they will, as a rule, fatten more rapidly or make greater weight for the food consumed.

Mr. Anderson makes the statement that barley is a first-class feed for fattening hogs. This is a point that I think would bear some discussion, and as I have had very little experience in feeding barley, since I do not grow any, I would like to learn which is the best way of feeding barley. Of course, I take it that ground barley is meant, but whether it is best to feed it dry, or soaked in water, or freshly mixed with water or swill, is what I would like to have settled.

THE MANAGEMENT OF SOWS.

In the paper written by W. A. Cowie, Valens, Ont., on "The sow and her litter," the only statement I would criticize is that "the sow, at farrowing, should be from ten to twelve months old." I take it that the writer did not intend to convey the impression that this is the best age for the best results. My experience teaches me that older sows produce stronger litters, and as a rule make better nurses, and I think farmers as a rule are too ready to kill the old sow and try a younger one. As long as a sow is doing satisfactory work it is best to keep her at it, for the young ones are untried and consequently uncertain. I am persuaded that if the sow produces her first litter at from 15 to 18 months old, she will with the same treatment grow larger, and have laid the foundations of a stronger constitution. Certainly I think it safe to say they should not be bred to produce at a younger age than 12 months.

I have noticed in several of the papers in our report on the management of the sow and her litter at weaning time, it is recommended to wean a part of the litter first, say the stronger pigs, and the remainder in a few days later. I am not sure that this is the best practice, and would invite discussion on this point. I have never followed this rule, and have had no experience of injurious results to the sow. For the comfort and safety of the sow, I think it is well to let her return to the pigs once or twice, say on the second and fourth day after separation, but my idea is that every pig has settled down to one teat, and that if a part of the litter is removed, the pigs remaining with the sow will only suck the teats they have been used to, and that the sow will continue to secrete milk in all her teats, possibly to the injury of those which are not relieved.

In the essay of Dr. Ormsby, on "The sow and how to treat her," I find this statement: "That while it is generally supposed that a sow will farrow almost on the exact day she is due, I do not find it so. I find the time varies much with different sows, some running as much as ten days over the expected time." Now, while I do not doubt this for a moment, I will say that from my experience I have found that as a general rule a sow that has had the best treatment, that has had plenty of exercise and access to the earth or some substitute to this, such as ashes, charcoal and roots, will farrow almost on the exact day she is due, and when she goes from six to ten days over her time, I have little hope of seeing a strong litter of pigs. I have known them to go ten and twelve days over time with spring litters, but almost invariably the pigs have been weak and flabby, and have lived only from a few minutes to a few hours. I have never had a case of a fall litter coming more than four days late, and then never in the condition of helplessness that I have described in the case of spring litters that have gone over time, and I can only attribute the difference to the fact that in summer the sows have more natural conditions—that is, abundant exercise and free access to mother earth.

HANDLING YOUNG PIGS.

Mr. C. W. Neville and several other writers advise, at the time young pigs are born, taking them away from the sow, placing them in a box or basket, and returning them at intervals for nourishment. Now, I think that in very cold weather, or in a building where the temperature is too low for comfort and safety, and in special cases where the sow is very restless, this practice is all right; but I feel sure that, as a general rule, it is safer and better when the temperature and surroundings are all right to let nature have its course, and that the less meddling that is done the better it is for all concerned. If the sow has had proper treatment before she is due to farrow, having had exercise and such food as to keep her bowels regular and free, a quiet place, comfortably warm, and scanty litter of some short material, and protection from the sides of the pen, she will, in nine cases out of ten, attend to her own business better than any one can do for her. Of course, there are exceptional cases, which require exceptional treatment, and it is well to be on the lookout and provide for the management of such cases.

A POINT IN WINTER FEEDING.

Mr. Sleightholm, in his excellent paper, brings out a point which I think is worthy of consideration and of commendation. In the treatment of fall litters of pigs during the cold weather of winter, he says: "The feed should be fed dry, since wet feed loads the stomach with a cold mass, which is decidedly injurious." My own opinion is, that a great many pigs are ruined in winter by feeding large quantities of wet food, that is, a meal on shorts mixed with cold water. The pigs overload their stomachs with this cold mess, then lie in their beds and shiver. Nothing can be more likely to produce indigestion and derangement. I think that the troughs should be divided, so that in cold weather the dry food can be fed in one department and drink given in the other, so that the pigs can take it at their pleasure.

WHEN PIGS SHOULD BE FARROWED.

Mr. James Sharp, in his papers, says: "I look upon it as of very little account at what season of the year the pigs are farrowed, if one has a warm pen." My own opinion is, that there are just two seasons at which it is most profitable to have the pigs farrowed—that is in early spring and early autumn. Pigs born in March or April can soon be let out upon the ground in fine days for exercise and the variety of condiments which instinct teaches them to look for, for even a little pig "wants the earth," and may be fattened for the late summer and early fall market, and, if kept for breeding purposes, will be a good age in November and December—the boars for service and the sows for being bred to farrow when a year old. Fall pigs for best results should be born in September and early in October, when they can have abundant exercise on the ground to strengthen and develop bone and constitution to stand the close confinement necessarily incident to fattening pigs in winter. Pigs which are born in the late fall and winter months are liable to get stunted, even in very warm pens, or to go off their legs largely from want of exercise; and if they do not get stunted, it is reasonable to say they cannot have the necessary exercise to develop bone and muscle to the best degree, which is very essential in the case of those which are to be kept for breeding purposes. September and October pigs, again, are of good age in April and May to breed for early fall litters, or to market for pork in the early summer months, when, as a rule, prices are higher than at any other season of the year.

(TO BE CONTINUED.)

Nova Scotia School of Horticulture.

The Nova Scotia School of Horticulture at Wolfville, N. S., will re-open on Monday, January 7th, with a four months' course in horticulture especially adapted to young farmers and farmers' sons who can attend during the winter months. The lectures during the course are of such a nature as can be fully understood. No examinations are required for admission. Circulars and any information desired may be obtained from the Principal,

PROF. E. F. FAVILLE.

THE FARMER'S ADVOCATE & HOME MAGAZINE

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Good Roads.

From time to time the FARMER'S ADVOCATE has devoted a good deal of space to the subject of road improvement, which we are pleased to note will be very generally discussed at the gatherings of farmers this winter. In many localities much has been accomplished, but still more remains to be done. Too many fail to realize how bad the roads really are that they are compelled to travel over, usage having "hardened them to it," or from not having, in contrast, had the pleasure of travelling over really good ones. With regard to the good roads campaign, we believe it will be found that educational work will, in the end, be found more beneficial than any attempt at sweeping or radical changes in the road law. Good drainage, proper grading, the use of levellers, road machines, and proper gravel and the making of repairs wherever actually needed, are among the essentials in securing good roads. These things presuppose intelligent supervision, and as the road question is studied, practical men in every farming community will naturally come to the front and push on the work of improvement. Winter is the time to consider the subject, mature plans, and in many cases procure the supplies of gravel needed.

Principles to be Observed in Establishing a Flock or Herd.

(Paper read by Hon. John Dryden before a joint meeting of the Dominion Sheep and Swine Breeders' Associations, at Guelph.)

In order to accomplish the best results in any pursuit of life, it is necessary to have a clear conception of what is desired. A builder would make poor headway, and be likely to produce an uncouth building, without a definite plan, either defined on paper or clearly present in his own mind. The sculptor, before using his chisel on the rough marble, must have some ideal in his mind towards which he directs his efforts. The painter could never produce an effective picture by using his brush at random. The farmer, before he sows the seed, must have decided what his crop is to be. So, also, the first and most important principle in establishing a herd or flock will be to *decide definitely* what you wish to accomplish. The breeder can no more attain success by chance than the builder or sculptor. Did Bates or Booth or Webb or Cruickshank or any other of the old breeders reach their position by a haphazard system of management? Not at all. Study their lives and you will find that in every case they proceeded on a definitely defined plan. They decided what particular type of animal it was desirable to produce, and, with this ideal clearly set, they year by year pursued their work, with what result all the world now knows.

I want especially to emphasize this point, because I claim that no permanent success can be realized unless the breeder is impressed with its importance. Why is it that you see on entering many of our dairy stables so many types—all sizes and all shapes are represented? The reason is that the proprietor or agent who gathers the animals together has selected them without having any definite type fixed in his mind. One often wonders in looking at a flock of sheep why there is so little uniformity. The reason is clearly that the owner has no ideal, and may be unable to tell one from another without looking at the tag in the ear.

I well remember the herd of cows on my father's farm when it was passed over to my control. They were of all ages, all sizes and all colors: some of them red, some black, some blue, some white and some brindled, and others with a combination of all these. Some of them had long horns and some short, and some none at all; some were turned down and others turned back. They had been gathered together without any other idea than that they were able to produce a calf and furnish a supply of milk. It is not necessary in order to have a cow give milk that she should be ugly to look at. I remember a very old cow that used to be kept at the College Farm; I objected to her appearance, and the authorities there found fault with me because they claimed she was an extra good milker. My point is that it is just as easy, and certainly more desirable, to have the herd consist of animals of a reasonable appearance, which will furnish just as large a quantity of milk, as to have it composed of animals that are simply shocking to look at.

The best large milking herd I ever saw in this country was that owned at one time by Mr. D. D. Wilson, of Seaforth, who furnished the town with milk from his herd. They were nearly all grade cattle, but were evidently selected by some one who had a definite idea of what he wished to purchase. They were nearly all of the same size, and all had more or less the same outline—they were wedge-shaped, rather narrow in front and wider behind. All had similar shaped udders, and they were a delight to the eye and filled the pail as well.

One of my neighbor farmers, who was a Scotchman and reared in Ayrshire, Scotland, claimed, twenty years ago, that it should not be necessary to send abroad for a good family of milking cattle; that among what were called Canadian cows in our country at that time could be found the very best type of a milk cow that could be desired. This man knew the form he wished, and always had animals of that description in his yard, and he claimed that if some man would take it up and establish a breed on that foundation, it would be as useful as any of the dairy breeds we now have.

The young beginner should first decide what particular breed is best suited to his circumstances, but it is not enough for him to select the breed, nor is it enough for him to determine that these should be registered in some herd or flock book. There is often nearly as much distinction between individual specimens of the same breed as there is between average types of different breeds. He who is to be a successful breeder should have in his own mind the particular form as well as the particular breed he desires to produce. If this be understood, he will naturally, when selecting foundation stock, secure that which is nearest the ideal. Doubtless it will be impossible for him absolutely to reach it. We have not yet been able to find perfection in any of these animals. His skill will therefore be seen in his ability to build up and perpetuate the good, and at the same time eliminate, as far as possible, whatever imperfection his keen eye may discern.

There are some qualities common to all animals that must not be unnoticed by the beginner. Good health, robust constitution, with the ability to produce beef, milk, mutton, wool or pork, as may be the design, at the lowest cost, should be requisites in every case. A weakly, puny cow, pig or sheep is just as likely to bring his owner success as that a race of warriors should spring from puny, consump-

tive parents. These weaklings ought to be weeded from any herd or flock; much less should they be chosen as foundation stock by any beginner. I am a strong believer in judicious selection in order to increase superior production. It is true in vegetable and plant life, and is just as true, and more easily discerned, in the animal world.

Fortunately, in our day we have the advantage of the wisdom and experience of skilful breeders of the past, who, working with a definite object, have produced breeds of animals particularly adapted for certain specific purposes. Breeds of cattle have been developed with special beef qualities, and others with special milk characteristics, and some there are that claim a combination of both. There are breeds of sheep that are kept solely for the fine texture of the wool they produce; others are kept principally for the extra quality of the mutton, while the wool is considered of minor importance. We have also breeds of swine which, judging from their appearances, would never produce anything but lean meat, while others at an early age give indications of an extra quantity of lard. With these various characteristics developed in the different breeds, it is clear that the young beginner must decide what he specially desires to produce. If his design be to produce milk, then it is idle for him to invest his money in certain of the beef breeds. He will find already produced at his hand animals with special characteristics in the direction he seeks. On the other hand, if he determines that beef is his main staple—that his design is to produce cattle whose chief characteristic shall be the production of prime beef—he would be very silly to choose the Jersey breed for that purpose. He will find at his hand animals that have been bred for generations to a type that will give him the greatest returns in that direction in the least time. At the same time there is no doubt that all these breeds may be changed somewhat; that is to say, the milking qualities of a beef breed may be encouraged and developed, while the beefing properties of really a milking breed may also be turned in the same direction by judicious selection and breeding; but it is a great mistake for the beginner to think there is no difference. There is a vast difference, and he must, before he makes his selection, be prepared to acknowledge and act upon it.

PRACTICAL SUGGESTIONS.

In founding a herd or flock the females should be selected as near the ideal as possible. I should want to do this first. Having selected the females, then you are better prepared to select a male animal that will be calculated to fix the ideal type or to correct imperfections that may be observed in the herd.

While my judgment would be to give little prominence to pedigree without an animal to match, yet a selection, especially of cattle, will not be complete without some regard being given to breeding. Every man of any experience knows that in the coldest blood to be found among our cattle, you will sometimes discover an animal of very superior qualities. If this animal be selected for foundation stock, the chances are that the result will be most disappointing. If, on examining the breeding, it is seen that the animal belongs to a family of animals bearing that type, you will have greater certainty that the produce will be such as is desired. Let no young beginner, however, feel that he has an absolute certainty in this regard. No matter how careful the selection, it will sometimes happen, for what reason I am unable to tell, that the produce does not show that accuracy of form and type that the owner was warranted in expecting. Such animals should always be discarded as breeders and sent to the butcher at the earliest opportunity, and only those retained that come the closest to the ideal set before the breeder. As years go by, if the skill of the breeder is sufficient, the herd will improve in uniformity and conform more closely to the design he has in mind. On the other hand, it is a very easy thing, after you have selected a choice herd of females, to destroy the type altogether by the use, for a few years, of an improper sire. This is especially the case with sheep and swine, because the animals will need to be replaced by young ones within a few years. It is sometimes said that the male animal is half the herd; in some cases the breeder proves he is more than half, because if he be an improper sire he will destroy the type altogether. It is, therefore, true that the young beginner and the old breeder as well will always find the greatest difficulty in the selection of a suitable male animal. If the animals that comprise the herd are seen to have any special weak point, the selection of the male should not be such as to perpetuate it, because when it is once set it becomes a characteristic of the herd, and it is extremely difficult to breed it out. He should, therefore, be selected, bearing in mind the characteristics of the individual animals comprising the herd. This principle, if acted upon, means that an animal that might be useful to one breeder would not necessarily meet the requirements of another. I should be delighted if the day would ever come in this country when the man who goes to purchase would go having his own individual ideas of what he wants for himself, and be prepared to act upon them without regard whatever to the opinions of others. Who has not seen men refuse to bid at an auction sale because their neighbor was not doing so; or who, on the other hand, has not seen a man bidding on an animal simply because he saw a prominent breeder doing the same? It might be wise for the prominent breeder to bid, but very unwise for the man

who is copying and trying to follow in his footsteps. Every man should be his own judge, and be prepared to follow the good example of breeders in Great Britain, who formed their own opinions and acted independently of everyone else.

In selecting the male animal, the first principle to be observed is, that the general appearance should indicate his sex. It should not be necessary to look all around an animal before you are satisfied whether you are looking at a male or female. Especially in cattle and sheep, he ought to have what I call an independent, noble bearing. It ought to be seen when he walks at the head of a herd that he is not only prepared to assume the parentage of future generations, but that he will undertake their defence if necessary. Dignity of bearing and strength of character are good things in a man, and they are equally good at the head of your flock or herd. It is not an easy thing to describe to an inexperienced breeder what is meant by noble bearing, as seen, say, in a bull or ram. It might be better to say that an animal exhibiting sourness of disposition, sluggishness of movement, or coarseness in general formation, is not the best type of animal to select as the sire of a herd. He ought to be docile, yet alert and watchful; active, yet not ugly. I would expect to see a typical animal hold up his head as if he were not ashamed to meet the world, but rather proud of his position.

If the herd, once established, is to be maintained and improved, then attention must be given to the care and feeding of the animals. The first thing that meets us is the subject of health. In my judgment the best health can only be secured and continued by placing the cattle in the most natural conditions. I do not mean to turn them into a field regardless of there being found in it sufficient food for their sustenance, but I mean placing them in such conditions as nature would provide, where there is an abundance of food right at hand. In countries where cattle can graze outside for a large portion of the year, there is undoubtedly an advantage. I believe that the pure atmosphere of heaven is the best element in which these animals can live, but in our country the climate is such that we must shelter them from the storm and the severity of our winter weather. But if they must be confined, let the ventilation be strictly attended to, and let it be constantly remembered that your animals need fresh air just as much as you do yourself.

Nor do I believe that animals can be kept in perfect breeding health without more or less exercise. It is possible that a bear is so constituted that he can crawl into his hole and suck his paw during the winter without exercise, but none of our domestic animals will be able long to continue a process of that kind. I hope, however, that no one will misunderstand this statement, and conclude that the easiest and shortest way to give exercise is by the use of a dog. I once heard of a man who, listening to a discussion on sheep breeding, learned that he could not succeed unless the sheep had a good run. Mistaking the meaning of this remark, he determined to try it. He, therefore, gathered his sheep into a five-acre field, and sent for his hired man, to whom he gave instructions to take the dog and run the sheep for an hour, and to continue it each day. You may guess what was the success of such exercise. Exercising by dogs will not be conducive to health, or to the increased production of beef or milk. To quote from Mr. J. Gould, of Ohio, "a dollar's worth of bran is worth more than \$5 worth of dog." If an animal must be confined in winter, then it is best to give it such food as most nearly approaches that provided by nature. Ensilage from the silo, roots, etc., serve this purpose. But I have learned from experience and observation that there are different kinds of ensilage. Rotten ensilage is just as useless as rotten roots or rotten hay; the whole of them ought to be transferred to the manure pile, and never should find their way into the stable. The question of proper food, however, is a subject by itself, and possibly ought not to be mentioned in this paper.

The foregoing are some of the principles that ought to be observed in founding and continuing a herd or flock. I think it ought to be said further that every man will not be able successfully to apply them. There is required for this purpose a sort of intuition, which is not found naturally in every man, and which it seems very difficult to give some by instruction. It is said that one hundred persons could be found competent to fill the position of Prime Minister of England to one who could successfully carry out the principles (which every one may admit may be accurate) required in order to attain success as a breeder.

Having laid down all the principles, and discussed all the points that an animal ought to have, we then meet this difficulty: that no two animals of the same breed are to be found exactly alike. The power to select exactly what is needed, without mistakes, is one that may well be coveted by the wisest men. It is a power that may add to the perfections of an animal, or subtract and take from them those already there. It is a subject well worthy of study, and I am glad to know that in these days our young men are not left entirely to their own experience in the matter, but that we have schools and colleges where these questions are discussed, and where a boy commences, even in his school days, his observations, and receives constant aid and assistance to enable him to accomplish the desired result. We have not commenced this work too soon, and we cannot give it too much of our sympathy.

System of Management in Breeding Stud of Draught Horses in Scotland.

(Compiled from a paper prepared by Archibald MacNeillage, Secretary of the Clydesdale Horse Society.)

In dealing with mares kept for showing, breeders are fairly unanimous in inclining to the belief that the dual work of breeding and exhibition can rarely be carried on successfully; many of those consulted condemn the practice of showing breeding mares, and Mr. Roger makes the suggestive remark, that he never shows brood mares unless they get themselves into condition by the use of the ordinary feeding of all the stock in the stud. Mares may be exhibited locally with very little extra attention. In such cases they are exempted from labor perhaps a month before the date of the show, and turned out to graze in good pasture. Sometimes nothing more than this is required, but should they have been in low condition when taken from work, they may also get a feed of oats and a proportion of linseed cake daily. The risks attending the feeding of mares for the larger exhibitions are many and aggravated.

Should the mare have been long fed for showing purposes, there is little prospect of getting her in foal at all without taking the flesh off her, and abandoning all notion of prize-winning. But should she, by any chance, be got in foal while in high condition, the risks of inflammatory founder at foaling are great, and even if these be escaped, the probability is that the foal will be undersized and weakly.

A good plan to follow in the case of a mare intended to be shown, say in the mare-in-foal class at a large July show, is to have her in ordinary healthy condition during the preceding winter, and have her served on the earliest opportunity in spring. If got in foal then, she will, on ordinary feeding, soon begin to thrive, and a little additional food may then be safely given her. It is, however, pretty certain that a mare cannot be hurried for exhibition; the work must be done gradually, and great care must be taken that a mare, in the case supposed, be not unduly excited, as there is much risk of the foetus being slipped at the tenth or eleventh week. The best of all methods of bringing out mares for shows is, first of all to have mares that are naturally perfect in all essential points, with feet, pasterns and legs of the right sort, short, level backs, well sprung ribs, good quarters, and well developed thighs. A mare of this class, when lean—if wintered out—can be shown anywhere and at any time, but a mare that is naturally flat in the rib, and plain behind the shoulder, will take an immense amount of feeding to get her into shape for the show ring.

On the general management of the feet and legs little need be said. Constant exercise and care to have the feet kept level, low at the heels, and short in front, will generally do all that is required, and I have not thought it necessary to collect information regarding the various plans adopted for "doctoring" the feet and legs of animals constitutionally defective in their parts. One trouble that has to be guarded against, especially in highly fed animals, is the heating of the legs, and "itch" caused thereby. The late Mr. Drew's solution for this trouble was as follows:—One gallon of pure train oil, half a gallon of oil of tar, and a few handfuls of sulphur, mixed until the whole is brought to the consistency of cream. This is an eminently safe specific. McDougal's non-poisonous sheep dip has many advocates. Before the application of either of these remedies, the parts affected should be washed well with soap and water.

After a mare has foaled she should be sheeted for a couple of days to prevent chills, and the sheets should be gradually removed as the normal state of the body is resumed. Great care should be taken in the choice of a day for turning the mare and foal out for the first time. The day should be dry, and the grass free from white frost, which is frequently common in the west of Scotland as late as April and May. For the first eight days, should rain begin to fall, the mare should be at once sheltered, as the foal, if exposed in such weather, may contract joint-ill and other diseases, and the mare herself has a tendency to colic.

After the foal has been weaned, the condition of the mare requires some attention. In order to put her dry, four drachms of aloes, along with a pint of linseed oil, has been found beneficial, and the food rations should be reduced in quantity, while they are made as dry as possible. When the udder becomes so full as to cause uneasiness, a part of the milk should be drawn off, but the udder should never be emptied. Bathing the udder occasionally with vinegar assists greatly in the process of drying off.

(TO BE CONTINUED.)

About Curbs.

A Southern farmer, in the Horse Breeder, said his plan was to allow a curbed horse to run idle three or four weeks, on light feeding, then take him up and begin working him, lightly at first, but increasing his work gradually until he was in racing condition again. The curb would take care of itself. The enlargement could be removed by applying the following mixture, viz: Tincture of iodine, 4 parts; oil of cedar, 2 parts; ether, 1 part; tincture of cantharides, 1 part. Mix well, clip off the hair and apply once a day with a common tooth-brush, rubbing it in well. After applying it three days, omit three days, then renew the application, and so continue alternating for three or four weeks. The only advantage of this treatment is to improve the appearance. The enlargement can be removed by repeated applications of iodine, made every second or third day.

Our Scottish Letter.

No one would begin a letter to Canada at this date (14th Dec., 1894) without referring to the sudden and unexpected death of the Canadian Premier, Sir John Thompson, at Windsor two days ago. It so happens that the writer was, along with many other Scotchmen, within the Castle grounds at the very moment the sad event took place. It was the occasion of the sale of Her Majesty's fat stock at the Flemish Farm, and leaving the sale when the best were sold, a large number of the visitors from the North went over the Prince Consort's Show Farm and dairy. They were thus within a short distance of the Castle, where all was in commotion at the appalling nature of the summons to depart, which had then been obeyed.

During the past fortnight, the great events have been the shows of fat stock at Norwich, Birmingham, Leeds and London. The feature of the year has been the conquering career of Mr. Clement Stephenson's Aberdeen-Angus heifer, Benton Bride. Alike at Birmingham and at London, she came, she saw and she conquered. She is but 2 years 10½ mos. old, and weighs 16 cwt. 2 qr. and 13 lbs., or, in Canadian weights, 1,901 lbs. Both at Birmingham and London very handsome prizes are offered, the most coveted of which are the Queen's £150 Challenge Cup and the Elkington Challenge Cup. The conditions attached to both are practically the same: they must be won twice in succession or any three times by the breeder, who is also the exhibitor, of the best animal in the Show, before they become his property. This year both cups have been won by Mr. Stephenson with Benton Bride. This is the first year of the Queen's Cup, but four Elkington Cups have been offered and won at Birmingham. For nine years no single breeder was able to carry off the first cup, but in 1884 and 1885, Mr. Price, a Hereford breeder, carried it off, and it thus became his property. The second cup had a very short career. Mr. Stephenson won it right away in 1886 and 1887, the champion in the latter year being the famous AA heifer, Luxury. The third cup lasted longer, and was eventually won two years in succession by Her Majesty with Shorthorns, and thus became her property. The fourth cup was won by Mr. Stephenson with Bridesmaid of Benton, in 1893, and with Benton Bride, her uterine sister, in 1894, and thus it also becomes his absolute property. The Queen's Cup at London will now remain in his hands for twelve months, and no honors were ever more popularly bestowed. That beef such as Benton Bride is growing commands the highest price in the market is evident enough. She was sold for £150, or at the rate of about £9 2s. per cwt., live weight. There can be no question that for show beef the Aberdeen-Angus is the breed that beats the record.

I do not know whether Mr. William Tait, who manages the Royal farms in Berkshire, is known to many Canadians, but probably in all Great Britain there is no more successful breeder of cattle. A Shorthorn herd is kept at the Prince Consort's Show Farm, Windsor, and Hereford and Devon herds at the Flemish Farm. Some years ago a great and foolish noise was made in some quarters because Mr. Tait was winning honors for Her Majesty with animals which it only required a royal purse to obtain. It was an unlucky line of criticism for the critics. Mr. Tait ceased buying and set himself to breed the animals with which to fight the Queen's battles, and the results have been marvellous. This year, as well as last, the champion Shorthorn both at Birmingham and Smithfield were bred and shown by the Queen, and the champion Hereford this year is also bred and owned by Her Majesty. Both are great oxen. The Shorthorn, Masterpiece, is well named. His age at London was 2 years 11 months, and his weight 2,074 lbs. He was champion of his breed, and stood reserve to Benton Bride for the supreme honors of the show. The Hereford is named King Robert, and at 3 years 9½ months old weighed 2,160 lbs. He is, without doubt, the best ox of his breed shown for a long time, and singularly free from the faulty hind-quarters too often found in the noble white-faced race. Many other first-class cattle were shown from the royal herds at Windsor, and in every case they were bred by Mr. Tait. There is nothing fancy about the steadings at the Prince Consort's Show Farm and the Flemish farm, but they are kept in splendid order and are well arranged. The royal dairy, planned by the late Prince Consort, is, however, a sight never to be forgotten. The two dairymaids, the Misses Stoddart, are sisters, from Lanarkshire, and they keep the place in perfect order. The byre contains Shor horn crosses on one side and Jerseys on the other. The tables in the dairy proper are of marble, and the walls and floors of enamelled tile of the first quality. The cost of the dairy was something enormous, and the ideal of cleanliness and coolness is attained in it. Clydesdale horses form the farm stud, and the stud horse at present is the Macquhae, a son of Macgregor. It will be remembered that Her Majesty was the breeder of Duchess of York, first prize yearling filly at the H. & A. S., Aberdeen. As Canadians are proverbial for their loyalty, I have thought these notes about the royal farms, stock and dairy, might have a little interest for them.

Harking back for a little to the Smithfield Show, it is gratifying to find the Galloways so steadily improving. The fact that the Council has this year, for the first time, given the various Scottish breeds cups for themselves is sure to be beneficial, and judging from the Galloway classes, a great improvement is discernible. The champion of the breed was

Mr. Leonard Pilkington's steer from Cavens, bred by Sir Robert Jardine, Bart., and although not three years old, weighing 14 cwt. 2 qr. 28 lbs., or 1,620 lbs. His sire was the famous Liberator of Balig. The heaviest animal but one in the hall was Sir John Swinburne's great ox, which at 3 years and 7 months weighed 2,251 lbs. He won first prize in his class, and there was some speculation as to his purity. West Highlanders never showed to such advantage as on the present occasion. The Earl of Cawdor gained first prize for steers and also the Breed Championship with Highland Master, a red ox 3½ years old and weighing 1,988 lbs. His Lordship also won first and second prizes for heifers, and the remaining specimens of the mountain breed shown were worthy of Auld Scotland. No cattle sell more quickly, and nearly all the Highlanders found customers. Cross-bred cattle were a wonderful display, and the best came from breeders in the north of Scotland. The champion of the section at both shows was Mr. Robert Copland's Hereford-Aberdeen-Angus cross heifer, Queen of Spades, and the reserve at London, a splendid steer named Little Model, three-parts-bred Shorthorn, and weighing at less than three years old, 17 cwt. 12 lbs., or 1,916 lbs. This steer also stood reserve to Her Majesty's roan ox, Masterpiece, for the championship as the best male animal in the hall. A large number of the best cross-bred cattle, including Little Model and his rival in his own class, the Inverness champion, Bluebeard, which were bred by Mr. John Ross, Meikle Tarrel, Fearn, were reared in Eastern Ross, one of the best farming districts in all Scotland. Looking back over all that has come and gone at these big shows, the verdict is— SCOTLAND YET.

Chatty Stock Letter from the States.

(FROM OUR CHICAGO CORRESPONDENT.)

The receipts for 1894 at Chicago were, in round numbers, close to 3,000,000 cattle, 7,500,000 hogs, and 3,000,000 sheep, against 3,133,406 cattle, 6,057,278 hogs, and 3,031,174 sheep the year previous. The decrease in cattle was entirely in Texas and Indian stock, which fell off about 270,000 head. The North-western range cattle, at about 400,000 head for the season, were the largest on record.

The average weight of live stock at Chicago the past year was 1,087 lbs. for cattle, showing a gain of about thirty pounds, while hogs averaged about twelve pounds lighter and sheep about one pound per head heavier. The quality of the cattle was not as much better as the increase in average weight would indicate, but was in fact poorer than the year before, the gain in average weight being due to the fact that there were fewer Texas cattle, which, of course, run light in weight.

The decrease in the hog weight was all in the last half of the year, when the market was kept flooded with pigs that were forced in by the drouth. During the last six months the average weight dropped about twenty-eight pounds from the corresponding time a year ago.

Top prices during the year were as follows:—Cattle, September, \$6.40; December, \$6.60; hogs, \$6.75 in September; sheep, April, \$5.10.

The following table shows the average prices for different kinds of stock each month of the year, with a comparative general average:—

MONTHS.	Beef Steers.	Fat Cows.	Cann'g Cows.	Hogs.	Sheep.	Lambs.
January	\$4 10	\$3 45	\$1 75	\$5 30	\$2 95	\$4 00
February	3 85	3 00	1 60	5 15	3 05	3 75
March	3 75	3 10	1 60	4 70	3 30	4 00
April	4 05	3 25	1 75	5 00	3 65	4 50
May	4 00	3 50	1 90	4 90	3 20	4 20
June	4 15	3 50	1 75	4 75	2 90	3 70
July	4 00	3 50	1 80	5 25	2 60	3 45
August	4 30	3 20	1 65	5 40	2 20	2 80
September	4 80	3 25	1 75	5 75	2 40	3 00
October	4 65	3 20	1 65	5 05	2 25	3 05
November	4 55	3 10	1 55	4 40	2 35	3 05
December	4 30	3 10	1 60	4 30	2 50	3 20
Average, 1894	\$4 20	\$3 25	\$1 70	\$5 05	\$2 80	\$3 55
1893	4 15	3 30	2 10	6 09	3 95	

Prices for Western range cattle ranged as follows:—July, \$3.00 to \$3.95; August, \$2.80 to \$5.00; Sept., \$2.80 to \$4.85; Oct., \$2.60 to \$4.90; Nov., \$2.65 to \$4.90; Dec., \$2.75 to \$3.00.

There were twelve days during the year when sheep receipts were more than 20,000, the heaviest being October 1, when 31,334 arrived. Largest receipts of stock on record for one day at Chicago:—32,677 cattle, 66,597 hogs, and sheep as above stated. Shorthorns and Aberdeen-Angus cattle sold at the top prices during the year, the latter leading.

Closing prices, compared with a year ago, were as follows:—

	1894.	1893.
Beef cattle	\$3 00 to \$5 60	\$3 25 to \$6 00
Cows	1 00 to 3 40	1 50 to 3 50
Heavy hogs	3 90 to 4 60	4 95 to 5 35
Light hogs	3 75 to 4 20	5 00 to 5 35
Sheep	1 50 to 3 50	2 00 to 4 75
Lambs	2 00 to 3 75	3 50 to 5 00

The general live stock business of the year was more satisfactory than might have been expected in face of general trade depression.

Nitrogen is the most expensive manurial element we have to obtain. Mr. T. B. Terry stated before the Ontario Experimental Union, in a talk on clover culture, that over every acre of land is \$90,000.00 worth of that valuable gas element. The question is, How can we get hold of it in agriculture? The answer is, Grow clover.

Our Buffalo Stock Letter.

BY EIRICK BROS.

The general condition of the live stock trade in the States is fairly good, excepting possibly on sheep and lambs, which has been very unsatisfactory both to feeders, shippers, and also to buyers on the markets. Cattle have been doing better, and feeders generally are fairly well pleased with results. Prices in the main have been satisfactory all along on everything excepting the export grades, which have not been selling quite as well, compared with butcher stuff or cattle weighing 1,000 to 1,200 pounds. The export business has not been very satisfactory to country shippers of this sort to this market, and we believe in all the Western markets, as a rule, they have not made them any money. The outlook for the future, or for next spring, is considered rather favorable by the trade. There are not as many cattle feeding this year as last, which of course has had a tendency to stimulate prices. A good many are contracted at higher values, to come after the holidays, but as far as we are concerned, we hardly believe they will make any money. We call present prices on cattle high.

In the hog market prices have fluctuated all the way from 10 to 25 cents per hundred within the past month. Early in the season the crop was generally thought to be a small one, which would eventually result in higher prices. Receipts have continued very liberal all over the country, and as yet there seems to be no let-up. Packers who looked for a decrease in offerings are getting weak-kneed, and unless we soon have a let-up, we are likely to have still lower prices. The large operators that thought in the early part of the season the hog crop would be very light are now operating slowly, and a good many have changed their views. We can see nothing encouraging in the situation for the near future. We certainly cannot have higher prices until receipts decrease and the weather gets colder. The warm spell prevailing all over the States has been an unfavorable factor in the market. As yet, there has been no evidence of scarcity in any section we know of.

The sheep and lamb trade has shown considerable improvement, and the market generally is not much better than it was several months ago. Canadian lambs have been marketed liberally at times, and prices within the last week have held up remarkably well, with choice to prime grades selling at \$4.25 to \$4.50. This advance is no doubt due to a large decrease in the offerings of native stuff, and inasmuch as it looks as if the surplus crop had been marketed, the outlook is much more favorable than it has been any time in the past six months. We don't mean to say there is any scarcity, or that there is going to be a boom in values; on the contrary, we think there is enough left in the country to satisfy the demand in such a way that the markets will be active and strong. We expect to have some advance in prices, though we would advise everybody to be cautious. We hear of lambs being contracted at from \$5.00 to \$5.50, to go in April, and of good sheep at \$4.50. We will have to have a good liberal advance to make any money at these figures, and those who risk it, we believe, are taking risks.

The Provincial Fat Stock Show.

The annual Fat Stock Show held at Guelph on Dec. 11th to 13th, under the joint management of the Agriculture and Arts Association, the Sheep and Swine Breeders' Associations, and the Guelph Fat Stock Club, was, as a show, an unqualified success, and a good evidence of what well-directed organization may accomplish. The magnificent display of sheep and swine at this show has but confirmed our opinion that in order to bring out the best results in an exhibition of live stock, the show must be directed largely by practical breeders and feeders, who know from actual experience what is needed to draw out the best efforts of the men who make the show. The organization of the Sheep and Swine Breeders' Associations has marked a new era in the management of live stock shows in this country. In order to make men feel a real, live interest in a society, or a show, it is necessary to get them to realize that it is theirs, and that its success depends upon their effort and energy. It is true that in this, as in many other enterprises, "money makes the mare go," and the comparatively liberal grants given by the Provincial Government, which enables the Associations to offer liberal premiums, has, no doubt, had much to do in bringing out such keen competition, but some such stimulus is necessary to induce farmers and feeders to incur the labor and expense of preparing for such an exhibition of their products, and the Government of an agricultural province does wisely and well to give liberal encouragement to such efforts to improve the products of the country.

What is needed now, in order to the greater success of our live stock shows, is a vigorous Cattle Breeders' Association, well officered and well managed, to look after the interests of that department, and then we may expect to see a larger and better display of beef cattle; and, also, what is perfectly reasonable in a Province now so largely interested in dairying, an exhibition of dairy cattle and dairy products, either in connection with the Fat Stock Show, or at a different season of the year, if preferable.

The prize list of the fat stock show, as it has been arranged, is, we are bound to say, not an ideal one

for the purposes of such a show. The main object should be to encourage the preparation of animals intended directly for the butcher's block, and not an exhibition of breeding stock, which, in the sheep and swine classes, it largely is. It was well, perhaps, in starting such a show, to include breeding stock for awhile, in order to bring out a larger exhibition; but we submit that this feature of the show should be gradually eliminated, and that we should get down to the solid basis of a real fat stock show, by offering larger and perhaps more numerous prizes for such animals as are intended directly for slaughter. In order to keep up our reputation in the export trade in cattle, we need to send out more high-class steers, and our farmers ought to be encouraged to make steers of a larger proportion of the bull calves that are born. It is one of the curses of our sheep and lamb export trade that our farmers neglect to castrate and dock their ram lambs. In order, then, to encourage attention to these matters, let liberal prizes be given for steers, wethers and barrows, and let these be the leading features of the show.

Another improvement which we claim should be made as soon as practicable, is a fuller classification of the sheep and swine. There should be a full list of prizes for each breed, to bring out a strong representation, and competition between the breeds should be limited to sweepstakes. It is an awkward position for a judge to be called upon, in classes which include breeding stock of different breeds, to decide which is the best. There are few men who are not predisposed in favor of some one breed, and they will naturally give at least the benefit of a doubt, if not a little more, to the breed they are interested in. Even if the prizes have to be a little lower, we submit that it would be better to give a full list for each breed, and let the public judge of the comparative merits of the breeds.

THE CATTLE.

We purpose to refer to what strike us as the outstanding features of the show, and to offer such suggestions as we think may tend to improvement in future management. The display of cattle at Guelph, this year, while it was a marked improvement on the last two years, and included some really meritorious animals, was not by any means what we ought to have, or what we can have, if our breeders and feeders take hold of the matter in real earnest. This is all that is needed to make ours the greatest Fat Stock Show in America. An entry of some sixty head of cattle, all told, even if they were all strictly first-class, would be a very inadequate representation of the capabilities of our country in this line. There is no good reason why there should not be at least five times as many good ones shown.

In the class for Shorthorn steers under three and over two years old, the competition lay between the two excellent white steers, Village Hero, shown by H. and W. D. Smith, of Hay, and Snowball, entered by Jas. Oke & Son, Alvinston, Ont. The former was a typical export steer and butcher's beast—blocky, low set, deep ribbed, smooth and well balanced, with a well-fleshed back, long level quarters, full twist and flanks. He was at sight a candidate for the highest honors of the show, and one which improved in one's estimation by longer acquaintance. A son of the white cow, Village Lady, shown by Mr. Cockburn at the Columbian Exhibition, he comes of a royal family, being closely related to the world's champion bull, Young Abbotsburn; he ought to be, as he is, a good one in every sense of the term.

Snowball made a good second. He is large, lengthy, well-matured, and will make a valuable carcass of beef. His fore end is almost faultless, but he lacks a little in width and levelness in his rear end, and is a bit light in his buttocks, as compared with his confrere.

Mr. Oke had first and second prize animals in the section for steers one year and under two. The steer, Ironclad, placed first, is long, level and smoothly fleshed, not as fat as he might be, but promising to go on to make a winner another year.

Steers under one year old were a good lot, the first prize going to a white owned by John Boulton, Armstrong's Mills, a lengthy, straight calf; and second to Mr. Oke's roan, a blocky fellow, which may stand higher in the list another year if he remains in such good hands.

The section for Shorthorn cows, three years and over, was well filled by four entries of high-class animals.

Mr. Crerar's Nonpareil Prize, a white, bred by Arthur Johnston, and sired by Indian Chief (Imp.), has, unfortunately, proved hopelessly barren. She was a prominent figure in the heifer classes at leading shows in the Province, and high hopes were entertained that she would do better service for home and country than winning first prize at a fat stock show at four years old; but she made a good first, and is a model for the breeder and feeder, as well as the inexorable butcher.

Mr. Ballantyne's imported roan, Meadow Sweet, bred by Edward Cruickshank, of Aberdeen, having quit breeding, made an excellent second in a strong ring. She is full of good flesh, firm, smooth and well finished.

John Richardson, of Fergus, got third place with a well-finished and well-proportioned cow, Maude of Fergus.

The other beef breeds have never done themselves full justice at Canadian Fat Stock Shows, and we have failed to understand why their breeders do not see it to be to their interest to prepare some of their best for this competition. Herefords, Polled

Angus and Galloways have held their own nobly at English and American shows of kindred purpose. And there is no good reason why they should not do it here, if they were brought out right.

Not a single steer in these classes was entered, and the same, we repeat, must be said of the grade classes, where they surely ought to show some good specimens; but we had in this show a new feature in three splendid Galloway cows shown by Mr. Kough, of Brookholm, whose four-year-old Countess of Glencairn, which won first prize in her class, is a perfect model of a butcher's beast,—long, low and level, with deep, well-sprung ribs, a thickly-fleshed back, full crops, smooth shoulders, level quarters, broad buttocks and firm flesh, the whole covered with a mossy coat of jet black hair. She was the object of envy of the butchers, and surely must "die well," if one can judge with any certainty from outward appearances. Mary 6th, a year older, shown by the same exhibitor, fills very nearly the same description as her stable companion, and marks a standard of uniformity which speaks well for the breed and the breeder. A couple of very good Hereford cows were shown by Mr. Rawlings, of Ravenswood, and Mr. Stone, of Guelph, and their broad, thickly-fleshed backs and quarters are characteristic of the breed. Mr. Bowman, of Guelph, showed two useful Polled Angus cows, and Mr. Rudd, of Eden Mills, a capital Devon cow in Fanny, a smooth, evenly-fleshed animal. Mr. Rudd also showed an excellent Devon steer, under a year old, which won first prize in his class.

GRADES AND CROSSES.

This is always an interesting class, and always brings out some good things. The only feature about it that calls for regret is that the breeders of Herefords, Polled Angus and Galloways do not see to it that some of their best grades are brought out. This would increase the interest of the show, and be a good advertisement for the breeds. As it was, only Shorthorn grades were shown, but they included a number of animals of very fine character. First among these was Mr. Oke's grand steer, Jupiter, in the class over two and under three years. He is good enough for first-class company anywhere: a model beef animal, with a thickly-fleshed back, level quarters, broad, full twist, and full of quality from start to finish. We wondered that with so many butchers for judges, they could go past such a steer, and in the sweepstakes contest tie to a cow of doubtful character, as some of them did.

Wm. Sharp & Sons, of Everton, showed a grand steer in this class, got by a son of old Barmpton Hero.

In steers over one and under two years, Mr. Bolton got first on a straight, smooth, promising steer; Mr. Oke second on a very useful sort, and Mr. Rennie, of Wick, third, with a neat, well-proportioned and evenly-balanced steer.

Grade steers under one year were a very promising lot. Mr. D. D. Wilson, Seaforth, won first prize with a blocky, low-set, thick-fleshed calf, which should go on well. Israel Groff had a real good second in a calf of even proportions and good feeding qualities, and in the hands of Mr. Rutherford, who purchased him here, we may expect to see him again in good shape. Mr. Rennie's third-prize calf is also a good one, and will come again, we doubt not.

The sections for grade cows and heifers were uncommonly strong. Among those three years old and over was Mr. Rennie's Queen, a grand young cow, full of quality and showing fine breeding and feeding. Mr. Barber showed a red cow that was sold to J. A. Leaman, of Halifax, N. S., a firmly-fleshed cow in a high state of finish, but wanting in the symmetry of form and levelness of contour which catches the eye of the breeder and feeder. She was, however, the favorite with the butchers judging, and took first place, Mr. Rennie's cow being second, and Mr. Rutherford's entry, a very good one, third.

The class for grade heifers over two and under three years included one of the plums of the show. Mr. Rennie's Daisy was, by most of the breeders present, looked upon as the closest competitor of the white steer for the championship, and but for something like prejudice which seems to prevail against a heifer, it is difficult to see how this animal could be got over. She is as near perfection in outline as one can reasonably expect to find in one animal. An oblong figure, filled up to the line on every side of it, is just about what this Daisy would be with her head and legs cut off. She had been judiciously fed, was ripe for the butcher, and full of good flesh in every part.

Mr. Oke had a good one in the same class, which won second place, and Mr. Murney, of Goderich, got third prize with a real good heifer.

In yearling heifers, Mr. Reddock, of Everton Mills, won first prize with a very smooth, level heifer, Mr. Oke winning second and third with two good ones.

The competition for the championship, a silver medal, for the best fat animal of any breed or sex, brought out the first prize animals in all the classes, and made one of the finest displays we have ever seen in this country in this line. After a careful examination by the four judges who had passed upon the classes, the competition was narrowed by selection to a short list of five, comprising the white steer Village Hero, Mr. Oke's first prize two-year-old grade steer, Mr. Rennie's heifer Daisy, Mr. Crerar's white Shorthorn cow, and Mr. Barber's first prize grade cow. The jury failed to agree on a

verdict, and adjourned for supper. At 9 o'clock p. m., under electric light, after two referees had been added to the committee, and a good deal of excitement had grown up, the coveted prize was finally awarded to Messrs. Smith, for the Shorthorn steer Village Hero, and he was crowned victor over all at the show of 1894. The most notable feature about this last contest, it occurred to us, was not so much the cattle as the action of the judges. They were about equally divided, breeders and butchers, and it was considered remarkable that the contest narrowed down at the last to two animals, one of which was not considered "in it" by the great majority of breeders and feeders around the ring, but was apparently the favorite with the butchers, and it looked at one time as if a great mistake was to be made by giving the championship to a cow that was far from being the style or quality of beef animals which the export trade demands, and which modern taste and breeding calls for. We have no hesitation in saying it would have been exceedingly unfortunate if such an animal had been uplifted as the standard for our young breeders to work by. As it is, there is cause for congratulation that a worthy animal has won, though we are free to say that if it had gone to any one of three of the best, there would have been little room for complaint.

From our observation at this show, we are confirmed in the opinion that at the Fat Stock Show there should always be on the committee of judges at least as many breeders and feeders as of butchers. The latter are, no doubt, just as honest and fair, but while they may be right in their judgment from a butcher's standpoint, it is, after all, of more importance that the proper type of animals should be selected to stand as object lessons for our young farmers, and for unexperienced men to copy and follow.

The judges were as follows: Pure-breds—Messrs. Thos. Crawford, Toronto, and Richard Gibson, Delaware, Reserve, C. M. Simmons, Ivan. Grades—Jas. Allison, Galt, and Henry Thurlow, Fergusonvale, Reserve, James Miller, Guelph.

SHEEP.

The sheep exhibit at Guelph seems to be a thrifty doer from year to year. Since the Sheep Breeders' Association has taken an active part in its conduct, in no department has there been a more marked increase. The number of exhibits this year (over 280) were more than 100 in advance of 1893, when they were thought to have almost reached the limit for an Ontario Fat Stock Show. The quality, too, may be said to have raised several degrees. Surely we, as a country, have a right to congratulate ourselves on the high standing of our live stock industry as represented by our flocks of sheep.

LONG-WOOLS.

The first section called was for Long-wooled yearling ewes, Cotswold, Lincoln and Leicester. Eleven good sheep answered the call, four of which soon demanded all the attention of the judges, being one each of Cotswold and Leicester, and two Lincolns. Just here was shown the necessity for a greater division of breeds, as the task to decide as to the superior merits of the representatives of so many sorts was so arduous as to require the judgment of a third man to decide the awards, which were given: 1st to Gibson & Walker's Lincoln, 2nd to J. G. Snell & Bro.'s Cotswold, and 3rd to John Kelly's Leicester. In the ewe lamb section, the attempt to judge the fifteen entries brought out would cause many a sheep man to draw a sigh before commencing. In Cotswolds were three of the finest specimens ever brought before judges in this country. They were shown by J. G. Snell & Bro., of Edmonton. As they were imported, they were debarred from competing with home-grown stock, according to the rules of the Association. The remaining entries were Lincoln and Leicester. The awards were given: First, Gibson & Walker, Denfield, for Lincoln; second, John Kelly, Shakespeare, Leicester; third, Wm. Oliver, Avonbank, Lincoln. Long-wooled wethers, one year and under two, just had five animals answer to the call, consisting of three Leicesters shown by John Kelly, and two of the same breed exhibited by John Rutherford, Roseville. The first prize was awarded to a well-grown sheep of Mr. Kelly's, with a splendidly ripened body for that age, which so often handles raw and bare. The second and third awards went to Mr. Rutherford's first and second Chicago winners a few weeks ago. In the section for Long-wooled wethers under one year, Mr. Kelly and Messrs. Gibson & Walker came forward with five well-grown lambs exhibiting lots of quality. The decision of the judges was a long time in coming, but ultimately placed the first and third awards upon Lincolns, the second going to a Leicester. In Long-wooled, three ewes under one year, Kelly, Oliver, and Gibson & Walker brought out the competitors and won in the order named. The three wether section, under one year, had only two competitors, namely, Gibson & Walker's and Kelly's. It seemed to make no difference how small the number of entries, the task of judging seemed equally irksome, as the specimens brought out were very even in quality and condition. The coveted ribbon was placed upon the Lincolns by a very small majority, due, perhaps, to the slightly larger growth of Gibson & Walker's lambs. Mr. Kelly's was just a little lower set, a desideratum not to be despised. In "five Long-wools, bred by exhibitor," the competitors were from the same flocks as those of last section, Mr. Kelly having out four yearling ewes and one yearling wether. Gibson & Walker's were all yearling ewes, and succeeded in winning the \$25 prize, after a lot of comparing.

MEDIUM AND SHORT-WOOLS.

What might be termed medium and short-wools included pure-bred Oxfords, Hampshires and Shrops, in one class; Southdowns and Dorsets in another, and grades in another. To give a comprehensive report of these classes, we will consider each of the principal flocks, giving these with each man's winnings. The strong contest was between Shropshires and Oxfords. There were, however, a small number of very fine Hampshires present, owned by John Kelly, Shakespeare, but, owing to their lack of compactness in form, they were not among the winners.

The flock of John Campbell, Woodville, was one of the most successful at the show. It consisted of ten pure-bred Shrops, and seven grades, each of which secured a prize in one or other of the sections, and three individuals won first prize in each of three sections; thirteen of the whole won firsts in pens and sections; among them were the three yearling ewes that won the lamb prize for three last year, over which judgment was severely criticised at that time. This year they won first in their section, and also in pen of five, one of which hung a long time for grand sweepstakes prize for best pure-bred ewe under two years, any breed, bred by exhibitor, but ultimately lost the award, which was given to a Lincoln ewe shown by Gibson & Walker. So difficult was this award to decide, a third man had to be called in. The whole flock was in grand fix, and were splendid specimens of the breed. This flock won in pure-breds: first on ewe one year and under two, first on ewe under one year, second on wether under one year, first on three ewes under one year, third on three wethers under one year, first on five sheep under two years, bred by exhibitor. In grades, third on ewe two years and over, first on three ewes under one year, first on three wethers under one year, first and third on wether under one year, second on ewe under one year, and grand sweepstakes premium on Shropshire ewe lamb as best sheep on the ground.

John Rutherford & Son, Roseville, had out a grand lot of wethers, including five Leicesters, three Shropshires, two Southdowns and twelve grades and crosses. It will be remembered that this flock cleared almost everything before it at the recent Chicago Fat Stock Show. A casual glance at Messrs. Rutherford's pens would give the impression that they contained a mixed lot of minor importance, as there were all shades of faces, quality and length of wool, size and age of sheep, but a more minute scrutiny could not fail to convince any sheep man that every individual was a mutton animal. Besides the awards in Long-wools, already mentioned, this flock received second on wether one year and under two, third on Southdown wether one year and under two; first, second and third on grade wether two years old and over, first on grade wether one year and under two, second on three grade wethers under one year, second on single grade wether under one year, first on grade wether any age.

Mr. Thomas Wood, Nassagaweya, showed three excellent grade Leicesters, on which he received first prize out of twenty-seven entries of ewe lambs. It is needless to say that she is a dandy, her weight being 169 lbs. He also received second ribbon on ewe two years and over.

D. G. Hanmer & Son, Mt. Vernon, made a nice exhibit with eleven pure-bred Shropshires and six high Shrop. grades. They were a pretty lot, even, and showed considerable quality, but to compete successfully in a fat stock ring they should have carried a little more mutton. This flock's awards were second on Shrop. ewe under one year, third on grade ewe under one year.

H. Hanmer, Mt. Vernon, was out with six nice grades, upon which second and third prizes were received in a strong ring of grade wethers one year and under two, third on grade ewe under one year.

W. B. Cockburn's pen contained four high class Oxford females, three of which were under one year. They were among the finest, as they weighed 200 lbs. each. Because of being imported they were not allowed to compete, therefore no awards were received. The fourth was a yearling, also imported.

W. E. Wright, Glanworth, exhibited Shropshires and Shrop. grades, and they were well up among the finest, as the awards show, which were as follows: In pure-breds, third on wether one year and under two, first on wether under one year, first on three wethers under one year.

The favorably known Oxford flock of Peter Arkell, Teeswater, had out nine pure-breds and one grade. They consisted of five very fine shearling ewes, two of which won second and third premiums in splendid company. There were also three very fine ewe lambs which promise well for the future. One monster two-shear ewe completed the number. It is worthy of mention that three shearling ewes and two ewe lambs of this flock made up the pen of five sheep bred by exhibitor, that were held by the judges, along with Campbell's Shropshires, for the single prize of \$25.

W. H. Beattie, Wilton Grove, had out his flock that recently made a nice record in the Chicago Fat Stock Show ring. The exhibit consisted of one pure-bred Shropshire and three Southdown yearling wethers, three pure Shrop. ewe lambs and three pure Shrop. wether lambs, three grade wether lambs and three grade ewe lambs. These sheep are of the proper sorts, but a little longer feeding should have been given to make them perfectly ripe. The awards were: first on Shrop. wether, one year and under two; third on Shrop. wether, under

one year; second on three Shrop. wethers, under one year; second on Southdown wether, one year and under two.

Messrs. Jas. P. and Geo. Phinn showed a nice pen of pure-bred Shrops. and Shrop. grades, all under one year old, the former showing six pure-breds of grand quality, having lots of size and individual excellence. For lambs intended for breeding they were all right, but evidently had not been pushed hard enough to be right ripe for the butcher; however, they won a third-prize for three ewes under one year in a strong ring. Geo. Phinn's three high grades showed the Shrop. element very decidedly, being slightly more open in fleece than the registered lambs.

The exhibitors of Southdowns had very little competition with other breeds. The only Dorsets were two yearlings, a wether and ewe, shown by R. H. Harding, Thorndale. They were a fine, strong pair of sheep, in real nice fix, but for a beau ideal mutton sheep, no one disputes the excellency of the Southdown.

T. C. Douglas, Galt, showed a nice flock of Southdowns, consisting of one yearling wether, three wether lambs, six ewe lambs and one grade wether. They exhibited first-class Southdown points, but some of them might have been a little larger and fatter; however, we would not object to a chop from any one of them, if we were looking around for a real delicacy. This flock won second on wether under one year; third on three ewes under one year; second on three wethers under one year.

R. Shaw & Son, Glanford Station, are old-time exhibitors, and always take home a creditable number of prizes. Their Guelph exhibit consisted of five Southdown shearing ewes, three Southdown ewe lambs and two half-bred Leicester and Southdown ewes. In the section for five sheep under two years, bred by exhibitor, this flock won the only prize offered, a \$25 premium, on five yearling ewes.

Mr. A. Simenton & Son, Blackheath, made as good a record as any exhibitor at the show, on their three Southdown ewe lambs and one yearling, winning first on the yearling, which was one of the best ever taken into a show ring. So good was she that the judges held her for a long time in the grand sweepstake section for pure-bred ewe, any breed, under two years, bred by the exhibitor. The three ewe lambs won first in the section for three, and third in single lambs.

R. L. Burgess, Burgessville, although a new exhibitor, brought out five creditable Southdowns—two shearlings, one of which carried off a second ribbon, and three ewe lambs, which did not go unnoticed, as the envied red ribbon came to one of them in the single lamb contest.

D. H. Dale, Glendale, was an exhibitor of very fine Southdowns, consisting of three ewe lambs, three wether lambs and one yearling wether. The awards were: First on wether lamb, first on three wether lambs, first on yearling wether, second on three ewe lamb; grand sweepstake for pure-bred wether, any breed, under two years, bred by exhibitor; also special prize for best two lambs, one ram and one ewe, bred and raised in Ontario.

A. Telfer & Sons, Paris, were also successful competitors of the neat little mutton breed. Their exhibit comprised three ewe and three wether lambs, which received second on ewe lamb, third on wether lamb, both sections being very strong; also third on three wether lambs.

Daniel Barberie, Corwhin, showed a few creditable grades, on which he won third on three ewe lambs in a section of nine entries.

James Bowman, Guelph, with a grade exhibit, won second on grade yearling ewe, the third going to James Scott, Aberfoyle, who also showed a few good specimens.

The judges on Oxfords, Hampshires, Shropshires, Southdowns, Dorsets and Merinos, with sweepstakes, were Mortimer Levering, La Fayette, Indiana; and Henry Arkell, Teeswater, Ont., with Thos. Wilkinson, Hamilton, as reserve. The Cotswold, Leicester, Lincoln and Grade classes were judged by Jas. Russell, Richmond Hill, and A. W. Smith, Maple Lodge, with Thos. Wilkinson as reserve.

SWINE.

The exhibit of swine was a triumphant success, surpassing in number and quality of entries any previous fat stock show held in Canada. The increased amount of prize money offered was doubtless accountable for the great interest manifested by the leading swine breeders, together with the general revival in Canadian swine raising and the efforts of the Swine Breeders' Association.

The building in which the show was held was well adapted for the purpose—light, airy and well ventilated. The pens for the hogs were fairly well arranged, only somewhat overcrowded, owing to the large number of entries. The feeding troughs were made of rather frail material, and many were smashed to pieces before the show was half over by the big clumsy porkers. This and the arrangement for a judging ring should receive the attention of those in charge in the future. A simpler and more efficient system of weighing might also be introduced with advantage.

A brief review of some of the individual exhibits will be of interest:

BERKSHIRES.

The judges of this class were: A. Elliott, Galt, and S. Coxworth, Claremont. The exhibitors were: Messrs. Snell, Edmonton; Geo. Green, Fairview; P. McGarr, Guelph; J. Kitching, Corwhin. In the section for barrow, over nine months and under eighteen, Mr. McGarr made two entries and Messrs.

Snell three; the latter were all by that famous sire "Enterprise—1378—," an illustration of whom appeared in a recent issue of the ADVOCATE. The judges placed that wonderful barrow, "Happy King," first. He possesses great length, together with thickness, levelness and depth, standing well on a good set of legs. This hog was afterwards awarded the sweepstakes as best pure-bred barrow, any age or breed, in the show; Freedom making a close second, and being the handsomer and more showy of the two, a thicker fleshed and a more level pig, but not having the length of Happy King. The third prize, Smart, was also a fine specimen. All three were brought out in capital fix, standing well on good feet and possessing bone of good size and quality. Altogether, this pen was one of the attractions of the show. McGarr's entries in other company would have been considered good specimens.

Geo. Green had it all to himself in the section for barrow under nine months, with two capital youngsters, Texas and Fairview Duke, placed in order named. Texas, a worthy son of Queen's Own, is a good, thick, level pig; well down on his under line. Both were well brought out. There were seven entries for sow over nine months and under eighteen. Green had three entries, taking first place on Maid of Texas, sired by Royal Crown; a sow of good length and depth, being level and smooth and not quite so fat as an unplaced entry, Lady Parnell; Green's third entry in this section being Blue Bell, by Queen's Own, too young for her class, being just a few days too old to enter as under nine months; she is, however, a wonderfully good sow, with fine carriage, and a show sow all through.

John Kitching got second and third place with a right good pair of sows—full sisters, sired by Wallace—2463—, Lady Fancy and Lady Flora; splendid typical specimens of Berkshires. Sows under nine months called out three entries from Green's pens and two from Snell's; Green's Charmer, by Royal Hubert, heading the list, with Cherry Blossom, by Queen's Own, third; while Snell's Memory wedged into second place, leaving two excellent young sows unplaced; in fact, Mr. Green seemed to fancy his sow Rosy the best of his string, but she was carrying a little too much fat and had to give way to the more modern type. She did good service, however, to her owner in the next section—three pigs, offspring of one sow and bred by exhibitor: Messrs. Snell were first with Freedom, Happy King and Smart, dam Happy Bell; Geo. Green second, with Texas, Rosy and Cherry Blossom, dam Queen Albina, and P. McGarr third with Dick, Sam and Lass, dam Swan.

POLAND CHINAS.

There were just two exhibitors in this class, Messrs. W. and H. Jones, Mount Elgin, and W. and F. Row, Avon. In barrows over nine months and under eighteen, Messrs. Jones made three entries, taking first and second on Sir Oliver, by Canada Boy, and Trenton Rock, by Ella's Moor—both good, thick-fleshed, deep-sided pigs. In barrows under nine months, Messrs. Row were first on Jack, a son of Senator, with Jones second with Oxford Boy. Three sows under eighteen months were paraded before the judges, Jones showing Pride III. by Ella's Moor, a truly wonderful sow with broad, level back, and great, deep, full sides, and hams—such hams as only a Poland-China can have, but unfortunately she was off her feet and had to take second place to Dorchester Belle, a sow of great length, depth and evenness, with another good daughter of Senator in third place.

In sows under nine months, Row entered three, all sired by Senator, getting second place on a good, lengthy sow, Fancy Queen. Jones got first and second on two full sisters, by Ella's Moor, out of Comparison. The judges, declaring for length rather than breadth, placed Princess ahead of her sister, Princess A.

In section for three pigs out of one sow, Row stood first with Jack, Dorchester Belle and Beautiful Belle, out of Avon Belle; Jones second on Princess, Princess A. and Oxford Boy, and third on Trenton Rock, Pride III. and IV.

YORKSHIRES.

J. E. Brethour, Burford; Jos. Featherston, Streetsville; R. Gibson, Delaware; Robt. Chadwick, Burnhamthorpe, and Jas. Jackson, Avon, were the exhibitors in this class.

R. Gibson's "Quality" was an outstanding first in barrows under nine months; he was a big one for his age, with a good back, deep sides and hams. Chadwick was second and third with Prince and Charlie, both good pigs.

In barrows over nine months, Featherston was first with a great, big, good one, appropriately named English Bacon. Chadwick followed closely for second and third with Nip and Tuck, a good pair; but, perhaps, not quite so well hammed as the first prize. Chadwick's four prize-winners were by Plymouth Prince—671—, out of "Prescot Lady." "English Bacon" was also by the same sire.

Sows under nine months were a fair lot of five—two from Featherston's pens, and three of Brethour's Fraulines. First and third went to daughters of Halton King—1045—: Canadian Maid, first; Dominion Maid, third; the former a very even, level, well-hammed sow; Brethour's Frauline IV., the best of his pen, ranking second; and a right good one she was—lengthy, level and well-sided and hammed. She was by Oak Lodge Model II., out of Flora. R. Chadwick's Nip, Tuck and Prince won first for three pigs out of one sow; Featherston

second with Dominion Maid, Dominion Girl and Dominion Lass; Brethour third on Frauline IV., V., VI.

CHESTER WHITES.

Judges were: Jos. Featherston and J. E. Brethour. The exhibitors were: R. H. Harding, Thorndale; Wm. E. Wright, Glanworth, and H. George & Sons, Crampton. In barrows over nine months, George's Best topped the lot, with Wright second and third on Jim and Sam, a very even pair of brothers by Glanworth King, out of Glanworth Maid. The Georges won first in barrows under nine months, with a mammoth Lennox, beating a good, straight, deep-sided pig, Eddie, forward from Harding's pens.

The call for sows over nine and under eighteen months, brought out one capital entry from each exhibitor. Wright's Glanworth Lily, a sow of very considerable merit, perhaps not so well balanced or so even as might be, had to take third place. Harding's wonderful sow, Flossy, bred by D. DeCourcy, Bornholm; fitted to the last notch, with a great back and sides, and remarkably good hams, had to content herself with second place, making way for that magnificent sow, Chester Queen, from George's pen, afterwards judged best sow of any pure breed any age in the Show. The Georges had two entries forward in sows under nine months, and Harding three nice, even sows. George's Rosa, first; sired by Honest Tom—301, the sire of most of their prize winners. Second and third to Harding, on Annie and Minnie, full sisters, by Cleveland—320—, out of Thorndale Maid.

Three pigs out of one sow, bred by exhibitor—First to George & Sons, second to Wright, third to Harding.

TAMWORTH OR JERSEY RED.

These two red breeds had to class together. The former especially were strongly in evidence. H. George & Sons, Crampton, and W. and F. Row, Avon, were the principal exhibitors. L. H. Stauffer, Breslau, making three entries in Tamworths. In barrows under eighteen months, the Georges were first with a Jersey Red monster, Sambo, weighing 614 pounds; second with a Tamworth, Last Look, and third with another Tamworth.

The call for barrow under nine months brought forward, in our opinion, the best pig of the class, George's Tamworth, Pork Packers' Choice, sired by Short Nose—88—, the sire of most of their winning Tams. This was a remarkably smooth, level, well-balanced pig of good length and depth and well hammed. Second stood a good pig from Row's pen—Sam, sired by Indian Chief—85—. The Georges had two wonderful Jersey sows under eighteen months, Duroc Choice and Lena, both sired by Stanley—4—, out of Dora. Row had the winning sows under nine months, in Fancy and Red Bird (Tamworths), both by Indian Chief, and good typical specimens. Three pigs, out of one sow—First went to George's Tamworths, out of (imp.) Countess 2nd—105—; second to the same exhibitor's Jerseys, out of Dora—4—, and third to Row's Tamworths, out of May Queen—220—.

BEFORE THE BOARD.

A protest was entered against the Georges for including in their exhibit pigs belonging to other parties, which being admitted before the Agricultural and Arts Board, the winnings were withheld according to the Act. It was claimed in justification that others had done similarly, and we are advised that another such complaint is yet in abeyance. It would be better for all concerned if rules were strictly observed.

SUFFOLKS.

Mr. James Main, Milton, and Thomas Teasdale, Concord, acted as judges. The exhibitors in this class were: Jos. Featherston, Streetsville; R. Dorsey, Burnhamthorpe, and A. Frank & Sons, The Grange. Featherston captured two firsts, five seconds and three thirds; Dorsey three firsts and a third.

GRADES.

Same judges as above class. In the section, barrow under eighteen months, the Messrs. Snell, Edmonton, came in nicely for first with the Berkshire grade, Boxer, and a capital all-round hog; he was a good sample of a money-making pig. A. Barber, Guelph, was second and third on Grit, and Tory, a Yorkshire-Berkshire cross of extra merit. Grade barrow, under nine months: There were fifteen entries in this class. Barber's Jake was placed first, second and third going to a well brought out pair of cross-breds (Poland China and Berkshire) shown by Messrs. Jones, Mount Elgin. Mr. Barber, Guelph, also won first on grade sow under eighteen months. The call for sows under nine months brought out five good beasts, mostly Yorkshire grades and crosses. A. Hales, Guelph, won first on a good, evenly-fleshed sow; S. Congdon, Everton, second, and W. J. Rudd, Eden Mills, third, with nice, even pigs.

SWEEPSTAKES SILVER MEDAL.

for the best grade hog, any age, breed or sex, was awarded to Messrs. Snell Bros., on Boxer. It is worthy of note, here, that at the last Fat Stock Show it was also a Berkshire grade that captured this prize.

THE INGERSOLL PACKING CO. PRIZE.

When this, the last class, was called, there was a general scramble; twelve pair of very lively porkers were turned loose among the judges and interested spectators, and, with the aid of the electric light, the judges, Messrs. Elliot, Coxworth and Teasdale, entered upon their unenviable task. The class called for pair of pigs (grade or pure bred), under nine months old, to weigh not more than from 100 to 220 lbs. each; suitable for the export trade.

The judges began at the bottom by ordering those that were not in it out of the ring, finally narrowing it down to three pair: Featherston's Yorks, a fine, even pair of long, deep-sided, bacon pigs; George & Son's Tamworths, also a typical pair of bacon curer's pigs, and a pair of cross-breeds (Tamworth, Berkshire) shown by Geo. North, Marden. They were finally placed in order named. A protest was, however, entered, claiming that these pigs were over weight. This proved to be the case with the first and second pairs, and after considerable cross-firing, the Directors ordered Dr. J. Y. Ormsby into the ring to settle the matter, and he placed Geo. North's cross-breeds first, with a pair of Yorkshires shown by J. E. Brethour second. The first-prize pair were model packer's pigs, lacking, perhaps, in hams, but good and even there.

Now, "after the ball is over," and one can calmly look back over all the different breeds represented in the various classes, we come to the conclusion that all the large breeds are coming to much the one type: The Berkshires, Poland-Chinas, Chester Whites are being lengthened out, and the Yorkshires shortened, brought near the ground, and made finer,—all aiming to give the packer the type he desires for export bacon, modified so as to be a profitable feeding pig for the farmer.

QUESTIONS AND ANSWERS.

[In order to make this department as useful as possible, parties enclosing stamped envelopes will receive answers by mail, in cases where early replies appear to us advisable; all enquiries, when of general interest, will be published in next succeeding issue, if received at this office in sufficient time. Enquirers must in all cases attach their name and address in full, though not necessarily for publication.]

Miscellaneous.

SELF-SUCKING COW.

E. C. T.:—"I have had the misfortune to buy a pure-bred Jersey cow that sucks herself whenever the teats become filled. How can she be cured of her habit?"

2. I had no guarantee from the person from whom I bought her that she did not suck herself. Could I recover damages or price of cow in a court of law?

[1. A cow that acquires the troublesome habit of milking herself, seldom, if ever, is cured without keeping her tied with a halter so that she cannot reach her udder, and by applying a fixture of some sort when she is turned out. We gave in our June 1st issue, 1893, a cut and description of a contrivance to prevent a cow from sucking herself. It is this: Take two pieces of good wood, one and a-half by two inches, two feet six inches long, and two pieces one and a-half by two, one foot six inches long, and bolt them together in the form of a square poke, with the ends of the cross-pieces projecting about a foot on either side of her neck, each piece having a sharp spike, one inch long, projecting from the back side about one inch from the end, so that when the cow turns her head to suck, the spike will catch her in the shoulder, which will soon teach her to leave the milk for the milkmaid. The appliance should fit close to the neck, so that the cow cannot get her head out. It may be removed by taking out the bolts on one side. Another method is to cover the udder with a canvas bag, held in position by two ropes which pass over the loin, one in front and the other behind the leg, and fastened to a strap which passes forward to a surcingle firmly buckled around just back of the forelegs. 2. No.]

TEACHER'S CERTIFICATES IN MANITOBA AND MICHIGAN.

FRED. THORNTON, Ingersoll, Ont.:—"I take pleasure in reading your 'Questions and Answers,' and I think this phase of your paper is very useful. Here are some questions which you may answer in your next issue of the ADVOCATE: 1. What is necessary for a teacher holding a third-class professional and a second-class non-professional certificate here, to do in order to be a teacher qualified for Manitoba? Are third-class teachers allowed to teach in Manitoba? 2. Would it be necessary for a teacher going from here to Michigan, to pass an examination there? If so, what would be the nature of the examination, and how long would one have to go to school there in order to pass it?"

[1. On the strength of your Ontario certificates, the Manitoban Inspector in whose district you sought a school, might give you a permit until the July examinations. 2. Yes. 3. After studying U. S. history, the holder of an Ontario certificate has usually no difficulty in passing the examination in Michigan.]

RAPE FOR SHEEP.

JAS. A. MARTIN, St. Williams:—"I would like to ask for information regarding rape for sheep food: When it should be sown? When and what stage of its growth should it be pastured? I think of using it to supplement early fall pasture."

[Rape should be sown in Ontario from June 20th to July 5th. It should not be fed till fairly well grown, say about Sept. 1st, or later, according to the season. In our Sept. 1st issue appeared an article on feeding rape, to which Mr. Martin would do well to refer.]

FARM.

Popular Geology—No. 8.

BY PROF. J. HOYES PANTON, M. A., F. G. S.

Silurian System.—This name is derived from the word Silures, the name of an ancient tribe of Britons, who lived in the west of England, where the rocks of this period were first studied.

Nature.—These rocks are chiefly dolomitic limestone (a combination of lime and magnesia, with carbonic acid), but in some places a soft, red sandstone appears.

Locality.—The area over which the G. T. R. passes from Weston to Baden, in Ontario, embraces this system.

Life.—Fossils are innumerable in deposits of this system. Shells are so common it is known as the "Age of Mollusks." Many remains of seaweed occur; a very characteristic one (*Arthropycus*) is found in rocks near Grimsby. A fossil land-plant has been found; corals also abound. In Europe remains of fish have been found at the summit of Silurian rocks. In 1888 remains of fish were discovered in these rocks in New Brunswick.

The Silurian species have been estimated as 718 corals, 1,579 trilobites, 1,086 bivalve shells, 1,306 univalves, and 40 fishes.

Economic Products.—Salt (Goderich), gypsum (Paris), building stone (Forks of the Credit), Dolomite for building purposes and the manufacture of lime (Guelph), lithographic stone (near Walkerton).

The deposits containing gypsum and salt are supposed to have originated partly in salt lakes or inlets of the sea while rapid evaporation was taking place, and some account for them by a simple chemical union of the elements of which they are composed. It was likely a time of elevation, and dry climate, with deserts and salt lakes. The Silurian period was one of shallow seas. Life largely in the seas, and warm climate. Silence was a leading feature of that time, for there were no animals as yet capable of making a sound, and no forests, as plant life was confined to the sea. The only break to the silence was the sound of nameless seas, and the rush of the wind over bare rocks. The Green Mountains made their appearance at the close of this period.

Devonian Period.—This name is derived from Devon, in England. Some have given the name Erian to this system on account of the great area of these deposits found about Lake Erie. This is the old red sandstone of Scotland.

Nature.—Sandstone is common among the deposits in Scotland, but in Ontario they are chiefly limestone and clay beds, with some sandstone.

Locality.—The area included between Baden, on the G. T. R., and Sarnia lies within this system. With this period the geology of Ontario ended until the fifteenth (Pleistocene) was reached, when this Province received another donation. During the vast period of time including seven systems, Ontario was at a geological standstill as far as receiving further deposits. It is likely the rocks were above the sea, and so not in a position to receive additions to the beds already formed.

Life.—The advance of both plant or animal life is very marked. Land plants are common in the form of ferns, and trees similar to pines. They indicate the presence of forests. Fish are so plentiful that this has been termed the "Age of Fishes." These fishes were a peculiar type called ganoids; the skeleton was cartilaginous, and hence boneless; the body was covered with plates, or firm scales, and the tail was unequally lobed. They were wonderful in variety, size, and number, and were prepared to attack or defend themselves against their enemies. The *Dinichthys* was a huge form, whose remains have been found in Ohio. The head was three feet in length, and its body as great in diameter, and the length of the creature was fully thirty feet. Supplied with tusks one foot long, it became a terrible engine of destruction in the nameless seas of Devonian times.

It was among the fossils of the old red sandstone that Hugh Miller labored with such distinguished success, and in writing of them became famous for his descriptive powers.

Corals were very abundant. Seventy-five species are reported in the rocks along the shores of Lake Erie. Insect remains have been found.

Economic Products.—While a certain amount of limestone is obtained from these rocks, the great product is petroleum, its source being in the corniferous formation of this system. Regarding the origin of this valuable product, two explanations have been advanced. A. The distillation of bituminous coal. B. The decomposition of organic matter, chiefly vegetable. The oil is usually found in a porous dolomite limestone, a few feet in thickness, and comparatively soft. Two well-known fields exist in Ontario—Petrolia and Oil Springs—with about 2,500 wells from which petroleum is being obtained. All petroleum is not derived from Devonian rocks. The Canadian is gotten from lower Devonian (Corniferous). The wells of Kentucky and Pennsylvania are from the upper Devonian; those of Virginia are from sub-carboniferous, and those of Ohio are from the lower coal measure.

Secretary John Hall, Rochester, N. Y., writes us that the 40th annual meeting of that progressive organization, The Western New York Horticultural Society, will be held at Rochester on January 23rd and 24th, 1895.

British Columbia.

(Continued from page 191.)

Of the many fertile localities in this Province, probably that of Chilliwack is justly considered one of the best. In consequence of the uncommonly high waterlast spring, many early planted crops were destroyed. The wonderful fertility of the soil and other favorable conditions soon almost obliterated the appearance as well as the effect of the losses sustained, and fine fields of fodder, splendid vegetables and roots were grown as a result of a second planting. At the Fair of the Chilliwack Agricultural Association, held on October 16, 17 and 18, a special prize was offered for a collection of vegetables grown after the water receded, which were far superior to such exhibits in many places, under normal conditions. The exhibition at this place, as a whole, showed that the people of the locality could accomplish a great deal under most unfavorable circumstances, and many of the exhibits reflected credit on the producers, as well as being a practical demonstration in favor of the locality. Fruit is grown to perfection, and to such an extent that that sent to other parts of the country is becoming well and favorably known. The ease of access to market, luxuriant growth of cultivated crops, plentiful supply of pure water and favorable climate, renders this a most desirable place for dairying. Adjacent to this district is Agassiz, where is located the Government Experimental Farm, under the efficient superintendence of Mr. Thomas A. Sharp. That an important work is being done here is very evident. The experiments made in all branches of agriculture at this farm seem to be highly appreciated by a great many of the principal agriculturists of the Province. This is as it should be. Every fruit grower will understand that no spot can be found where all varieties of fruit grow to their greatest perfection. The fact that British Columbia has such a varied climate makes it a necessity, to secure best results, to obtain as accurate knowledge as possible of adaptability of different varieties for the localities where they are to be grown. It is very unwise to plant all kinds promiscuously. While almost all kinds may be successfully grown in the Province, the highest degree of success in every instance will be had by selecting special varieties for special conditions. This knowledge is only to be obtained by much careful study and experiment, and the advantages to be gained through the work being done along this line at the farm are great indeed. To go into detailed accounts of the hybridizing of different cereals, already done here, would occupy too much space, but we shall endeavor to mention, from time to time, the more important. Of winter wheats tested last year, we might mention that "Canadian Velvet Chaff" stood head and shoulders above all others. The heads were the largest we remember ever having seen. One of the most novel results of the work coming under our notice has been the production of a barley-wheat. The heads of this curiosity resemble that of barley, but on shelling, it presents a change—behold! you have wheat. Whether this new grain possesses such qualities as will recommend it to general favor or not, requires a little time to demonstrate.

(TO BE CONTINUED.)

Restoring Soil Fertility.

BY JAMES MILLER.

Manuring should be looked upon as something more than merely adding to the soil a certain amount of matter in which it is deficient. Some parts, for instance, are valuable, not so much on account of what they themselves add to the soil, but because they act upon matter already in the soil, and render it available for the use of plants. For instance, manure is largely composed of carbonaceous matters, and it was formerly supposed that the roots of plants were capable of taking up carbon from the soil, as well as through their leaves, but modern experimenters have exploded this idea, and have discovered that the plants derive their whole supply, or nearly so, through their leaves, in the form of carbonic acid. So that the sole use of the carbon contained in the manures is as an insorbent ingredient. It also keeps heavy soils loose and porous, in developing by its decay the carbonic acid, which is the best solvent known. It is this substance which sets loose the stores of potash, phosphorous and other mineral manures which the soil may contain, and therefore the great point in maintaining or restoring fertility to soils lies in the increase of carbonaceous material. In the different parts of Canada which have been longest cultivated, and the fertility of which has consequently diminished, the restoration is best brought about by growing grass and clover, especially the latter. Many have the idea that other cultivated crops give more food per acre than clover or grass; no doubt they do, but it is not quite so certain that they do this with corresponding advantages to the soil. In Canada, where grain is grown year after year on the same land, nothing of any account remains after the harvest; but, in the case of clover, even if the growth above ground be entirely removed, there yet remains several tons of roots, which must go towards the fertility of the soil. By growing grain the soil soon becomes impoverished; by growing clover it does not. A good crop of clover plowed under has about the same benefit as \$15 worth of manure to the acre. A crop of wheat, which yields 30 bushels to the acre, will carry off in the grain 33 lbs. of nitrogen; in the straw, 12 lbs., or 45 lbs.

altogether. So that the roots and stubble of clover, with the assistance of nature, will supply as much nitrogen as two crops of wheat of 30 bushels. The same crop of wheat will carry off in the grain and straw, 22.7 lbs. phosphoric acid, and almost 28 lbs. of potash.

The point which I wish to make plain is the advantage of growing a green crop as a manure. A crop of clover which will yield in its dry state two tons per acre, will yield 102 lbs. of nitrogen, 25 lbs. of phosphoric acid, and 87.4 lbs. of potash, or enough with the natural supply to produce a wheat crop of 30 bushels per acre for five years, and which is equal to twenty-five tons of manure. A farmer could easily sow a crop of rye on the land in the fall after the harvest was taken off, and plow it under in the early part of the season for his root crop; or he could sow and plow in two crops of buckwheat or rape on his summer-fallow, both of which are rich in the fertilizers mentioned. By these judicious means the land need not become exhausted, but, on the contrary, be built up.

(TO BE CONTINUED.)

DAIRY.

Mistakes in Cheesemaking.

BY T. B. MILLAR, INSTRUCTOR FOR THE WESTERN ONTARIO DAIRYMEN'S ASSOCIATION.

At this season of the year it would be well for cheesemakers to devote part of their leisure hours to considering some of the mistakes made in the

manufacturing of cheese during the past season. True, every cheesemaker does not make many mistakes. Yet almost every one makes a few. It may be that the one who buys the cheese doesn't find fault with them. He inspects and passes them as all right, and although there is nothing said about the quality, yet the maker feels that there is something about certain lots that should be better, and he will set about learning the cause and applying the remedy. That is, he will if he has his own interests and the interests of the industry at heart, and unless a maker has something of this spirit he should quit the business at once, and try some other line of work that does not require the untiring watchfulness and attention that cheesemaking does.

In pointing out a few of the mistakes that have been made during the past season, and in fact I may say every season, I do so with a view of throwing out a few hints on cheesemaking that I trust will be helpful to makers, more especially to those who have made these mistakes. In this article I will confine my remarks to summer cheesemaking.

USING RENNET.

I take it for granted that all cheesemakers are familiar with and use the rennet test. If not, they should, as it is very essential that every cheesemaker should know just when the milk is in the proper condition for the application of the rennet. To determine this, the rennet test is a very simple and accurate method. All makers admit that adopting the rennet test has been a great stride in the right direction, and the maturing or ripening of milk before setting is of untold value to cheesemakers. Yet all good things may be overdone, and I must say that this practice of maturing milk has been overdone in a great many instances. A certain class of makers persist in maturing the milk too far before adding the rennet. By doing so they think it will enable them to get out of the factory an hour or two earlier in the evening. This is a great mistake. After maturing milk past a certain point it develops forms of fermentation and bad flavors that otherwise might be escaped. The results are that it requires more time to get the curd in proper condition before going to press. During the past four seasons I have made cheese in almost every cheesemaking district in Western Ontario, and in all my experience the best results were ob-

tained from milk set about 18 seconds by the rennet test, using one drachm Hansen's pure extract and 8 ozs. of milk at 86°. Of course, there are exceptions to all rules, and local circumstances must always be taken into consideration. It is a well-known fact if milk is allowed to become over-ripe, or develop too much lactic acid before it is set, it has a detrimental effect upon the quality of the cheese. There is a coarseness in the grain or texture. It lacks that silky texture and quality so very desirable in all cheese.

COLORING.

In coloring, some add the annatto immediately before adding the rennet, and stir both in together. The coloring matter is not evenly distributed in the milk, and the result is mottled cheese. Then the maker wonders what is the matter with his annatto. Add the coloring as soon as possible after you get the weight of milk in the vat, and be sure that it is thoroughly mixed before the rennet is put in.

COAGULATION AND CUTTING.

Right here the question arises: How much rennet should be used for 1,000 lbs. of milk? I find makers using all the way from 1½ ozs. to 4 ozs. Still, the quantity is not a safe guide to go by, as a great deal depends upon its strength or quality. Yet I find vats of milk coagulating and ready for cutting, varying all the way from 20 to 45 minutes. This is another mistake. We should have a more systematic way of doing our work. Enough rennet should be used to cause perfect coagulation, fit for cutting, in from 30 to 35 minutes. Commence cutting

curd it is an advantage to develop more acid before dipping; pile it up in the sink as deep as they can get it, and leave it there for hours before milling. At this stage it has developed anywhere from 2½ to 3½ inches acid, according to the hot iron test. After milling, they will turn it over a few times, then cover it again, and keep covered until salted. This is a decided mistake. The longer the curd remains in the whey the stronger the flavor becomes. When a bad flavor is developed in the vat, draw off the bulk of the whey early, dip curd with little acid, and keep it warm up till the time it is ready for milling. If you haven't proper means for keeping curd warm in the sink, it is advisable to raise the temperature 2° higher just before dipping. This will help to maintain the heat at the desired point, about 94° or 96°. Turn the curd frequently, and mill when it becomes velvety or flakey and will show about 1½ inch acid. Give a good deal of stirring. Air and mature well before salting.

SALTING.

Use from 2½ to 3½ lbs. of salt per 1,000 lbs. of milk, varying the quantity in proportion to the percentage of moisture in the curd, and by all means use some brand of dairy salt. Don't use common barrel salt on any account, as some of it contains ingredients which are anything but beneficial to the cheese. Allow the salt to dissolve before putting curd to press, and see that the temperature is not above 85° at this stage.

HOOPING AND PRESSING.

After putting the curd in the hoops, don't be

in a hurry to apply the pressure. Some practice putting the full pressure on as quickly as possible, using a lever three or four feet long for that purpose, keeping them at high pressure mark for 10 or 15 minutes, then take them out and bandage in a haphazard way, and into the press again, paying very little attention to the style or finish of the cheese. They do not turn the cheese in the hoops in the morning, but have them taken to the curing room at once and placed on the shelves. There you may find them, all shapes and sizes—medium, little and big, straight, crooked, shoulders, bandages pulled down off the corners and wrinkled on the sides—yet

hardly any two of them alike. From their appearance one might easily be led to believe that they had been specially prepared for a variety show. In the first place, it is a mistake to apply the pressure so quickly. This should be done very slowly at first, and gradually increased until the full force or pressure is applied.

BANDAGING.

It is a mistake to try to bandage cheese in 15 or 20 minutes after they have been put in the press. They should be left in the press at least 45 minutes before bandaging. Pull the bandages up neatly, and try to have about an inch of the bandage to lap over each end of the cheese. Use a double set of cap or end cloths, so that one will be left on the cheese until a perfect rind is formed. Turn the cheese in the hoops every morning, and trim off any shoulders that may have been formed during the night, then put back to press for some hours before removing to the curing room.

CLEANLINESS AND NEATNESS.

I would like to impress upon every maker the necessity of keeping his factory clean and tidy. No matter what the quality of his cheese may be, unless he is clean and neat, he cannot be rated as a first-class maker.

British Columbia Vegetables.

The accompanying illustration, from a photograph, will afford our readers an idea of the extent and excellence of the vegetable display at the last exhibition held at New Westminster.



A PACIFIC COAST VEGETABLE DISPLAY.

with the horizontal knife, then follow at once with the perpendicular. Begin cutting while the curd is tender, and handle it very carefully, as rough or careless handling at this stage means a decided loss both in quantity and quality.

STIRRING.

Some make a mistake by turning the steam on the vat as soon as the cutting is completed, and commence stirring at once with a rake, and the way they go at it would give one the impression that they were raking hay, or something that did not require careful handling. After cutting, the curd should be stirred gently by hand (where agitators are not used) for 10 or 15 minutes before any steam is turned on, unless in the case of a fast-working curd, raise the temperature gradually, taking about 35 or 40 minutes to raise from 86° to 98°. Continue stirring for 15 or 20 minutes after the temperature has been raised to the desired point, and occasionally afterwards, to keep from matting, until the curd is dipped.

ACID DEVELOPMENT.

With regard to the amount of acid that should be developed in the whey before the curd is ready to dip, ideas are varied and numerous. Some dip with 1-16 inch acid, or as soon as they can see those fine, silky threads on applying curd to the hot iron, while others would not dip with less than a ¼ inch, and often develop ½ inch, but they do so at the expense of quality. It is a mistake to go to the extreme, either one way or the other. The best results are obtained with from ¼ to ½ inch acid, and I would not advise using more than ½ inch acid at any time. Some claim that in case of a bad-flavored

Prof. Dean on the Babcock Test.

In your issue of Dec. 1st there is an article headed "A Disturbing Bulletin," of which, with your permission, I would like to say a few things. The first statement that I would call your attention to is:—"The results of Prof. Dean's work seem to vary considerably from those obtained by Dr. Van Slyke," etc. If you will turn to Bulletin No. 65, new series, New York Station, published in January, 1894, where Dr. Van Slyke gives a summary of the work done during 1892 and 1893, on page 146, you will find that he says:—"The amount of green cheese made from one pound of fat in milk varied from 2.52 to 3.06 lb. and averaged 2.72 lb." He does not say in what class of milk the greatest yield of cheese per pound of fat was obtained, but the general results of the table on page 144 indicate that the greatest yield of cheese per pound of fat in the milk was from milk with the lower per centage of fat. There are exceptions to this, notably the third and fourth weeks of October.

"In Prof. Robertson's investigations, the quantity of cheese did not increase exactly in the same ratio with the fat percentage, but the differences were reported so small as not to be worth considering."

I presume the writer refers to the experiments made by Mr. Ruddick at the Perth Station, which were reported in the Dairy Association's Report for 1892. On page 21 of that report you will see the table giving the results. I quote:—

Per cent. of fat in milk.	Lb. of cheese to 1 lb. fat in milk.
3.9	2.58
3.8	2.56
3.7	2.57
3.6	2.63
3.5	2.67
3.4	2.71
3.3	2.78
3.2	2.83

In the same report, pp. 188, is the result of Mr. A. T. Bell's experiments at Tavistock. Although not given in the report, if you will figure it out you will find the relation somewhat as follows:—

Per cent. of fat in milk.	Lb. of cheese to 1 lb. fat in milk.
4.50	2.52
4.30	2.55
4.10	2.57
4.00	2.63
3.80	2.68
3.60	2.68
3.30	2.79
3.20	2.82

All these agree with the statement in the "Disturbing Bulletin" that the yield of cheese is not in exactly the same proportion as the fat, and "that a pound of fat in milk ranging from 3.2 to 3.7 per cent. will make more cheese than a pound of fat in milk ranging from 3.6 to 4.5 per cent. of fat." I think that the difference in yield of cheese is worth considering, and so do all practical men who have given the matter study. Mr. Bell, of the Tavistock factory, has divided the money among his patrons since July by adding one per cent. to the fat readings.

In reference to the statement that "expert cheese-buyers find that the finest quality of cheese is made in September and October, when the milk contains a larger percentage of fat than previously," from which it is to be inferred that the high per cent. of fat in the milk is the cause of the fine quality of the cheese, I hazard the opinion that it is not alone the high per cent. of fat in the milk that makes September cheese fine, but it is due to the fact that the milk is in better condition, and the weather more favorable for the manufacture of good cheese. Give the best maker in Western Ontario, during June, July and August, milk that averages as high in per cent. of fat as the September and October milk, and he can not produce as fine average cheese. Why? Because the conditions are not so favorable. The per cent. of fat may have something to do with our September cheese being of extra quality, but it is only a small factor in the question.

The article further speaks of the effect of this Bulletin as likely to result in the discontinuance of the system of paying by quality another year. I fail to see why this effect should be produced. It certainly shows that paying by weight is not correct, and it simply suggests a modification of the present plan of dividing the proceeds according to quality. If the matter be explained to patrons of factories, the more intelligent ones will readily see through the plan, and the others are likely to concur. I believe in crediting the patrons of factories with a fair amount of intelligence and common sense. Judging from the way some persons write and talk, one might conclude that patrons of factories have little of either.

In my opinion, the Legislature would be justified in passing an act making it compulsory for all factories to pay by test for a period of ten or more years, until the fellows who have been making money out of quantity milk, pump milk and skim milk, shall have paid back to the producers of good, honest milk the money which belongs to them. If factories do not wish to pay by test alone, then the system of adding on two per cent. to the fat readings will be found to be very nearly correct, so far as our present knowledge goes. If patrons who sent 3 to 3.5 per cent. milk have not been getting full pay by the test plan, they can very well afford to allow the men who have been sending in richer milk a little more than they are entitled to to make up for past losses. Usually the men who send in good milk are generous fellows, and they will be willing to make some change to satisfy the "kickers," though they may not be doing anything unfair by insisting that the milk be pooled according to test, for a while at least.

The paragraph about adding 2 per cent. to skim milk testing .1 of 1 per cent. of fat, and adding the same to 1 per cent. milk, and comparing results, is faulty, for the reason that "you cannot compare things which differ." When you compare results obtained from skim milk with whole, normal milk, it is a different question altogether. Let me state here that our work has all been done with normal milk, and it is normal milk—just as it comes from the cow, without the addition of skimmer or pump—that we need at the factories. Skimming, for the purpose of deteriorating or enriching milk for cheese factories, should be punished. Any system which encourages the sending of whole, normal milk, to the factories is one to be adopted, and the plan proposed has this element, as it recognizes the value of good milk, and at the same time discourages abnormally rich milk, obtained in many cases, no doubt, by adding cream or strippings.

While agreeing that bulletins should have sufficient data to warrant any conclusions that may be stated, I do not agree that "an official bulletin should have in it the essential element of finality." Let us see where this method of reasoning would lead us. Suppose that the Patrick, Short, Cochran, or any of the milk tests which came out before the Babcock or Beiming test, had never been described in bulletin, or brought before the public, would we have the improved tests of to-day? No. It was by studying the weak points of these that present improvements were made. Had Dr. Babcock kept his method of testing milk stowed in his laboratory at Wisconsin until he had the machine part perfect, would we have the machines of to-day? While the essential parts of the test are the same, yet there are improvements being made every year. Does the ADVOCATE wish that the results of all work, which must necessarily extend over a number of years, be kept fled away until a question has been finally settled? If this policy were pursued, it means stagnation. Let the public know the results of investigations as soon as possible, and thus create interest. Progress will be the result of this policy if the work done is carefully and systematically executed and no unwarranted conclusions are stated, though it may not finally settle the question under consideration.

I may say in conclusion, that the results of the seven months investigations—May to November—bear out the indications of the "Disturbing Bulletin." These will be published shortly, either in bulletin form or in the annual report of the Ontario Agricultural College. In the meantime, a little agitation on the matter will do no harm. We shall thus hear the various sides of the question before the Annual Conventions meet in January, when the matter no doubt will be thoroughly discussed.

While there may be a difference of opinion as to the wisdom of publishing this particular Bulletin at the particular time it was published (we shall not quarrel with any one on this point), one of the objects of the Bulletin, as stated in the last paragraph of it, was to induce a number of makers to conduct experiments at their own factories and send the results to the Dairy Department of the O. A. C. I am glad that we have a number of such experiments conducted by careful makers, the results of which will be published in due time.

H. H. DEAN,
Ont. Agr. College, Guelph.

[NOTE.—Doctors differ, so do the professors. Some of us very well remember the days when Arnold and Willard used to cross swords at the old-time dairy conventions, long before the Babcock test was dreamed of.

Dr. Van Slyke's conclusion is that "the amount of fat in milk should be used as a basis in paying for milk at cheese factories, because it offers the most accurate, practicable and just basis we have for determining the cheese-producing value of milk."

At the close of an elaborate address by Dr. Van Slyke, at the last Western Ontario Dairymen's Convention, Prof. Robertson said: "I am glad, indeed, to know that the work of Dr. Van Slyke agrees almost mathematically with the work we have been carrying on for the past two years. . . . The results agree almost identically in establishing that the cheese-making quality of milk is in proportion to the butter-fat."

At a previous convention, Mr. Ruddick, of the Dairy Commissioner's staff, said: "My contention is that the man sending the rich milk is entitled to whatever extra he got, if any, for building up the quality of the pool."

Prof. Dean begins his letter with data to show the relation of cheese made to the fat in the milk, but the real point is the result or conclusion he reached, and which is to be applied in actual practice. His Bulletin says that "practical men feel that paying for fat alone gives the patron who furnishes rich milk more than his just share of the proceeds, and the patron sending poor milk less than he is entitled to," and he refers to his table as supporting that view. His Bulletin also states that the cheese was scored by "two competent judges" (names not mentioned), and those made from the rich milk (3.80 per cent. fat) in May scored 83 points, while cheese made from the "poor" milk (3.48 per

cent. fat) scored 84 points. The June cheese, from 4.18 per cent. milk, scored 91, and that from 3.60 per cent. milk, 93! Now, if the yield of cheese is somewhat greater in proportion to the fat from the milk containing a low per cent. of fat, the rich milk will make a cheese richer in fat, which is one of the great factors in determining its quality, as is shown by the wide difference existing between skim cheese and whole milk cheese. Prof. Dean remarks in his Bulletin that the losses of fat in whey from rich milk up to 4.5 per cent. need not necessarily be more than in poor milk.

He also takes the trouble to argue, in his letter above, that the extra richness of September milk is only a "small factor" in accounting for the extra quality of September cheese—which is more on account of the cool weather.

And yet Prof. Dean claims to be so anxious about quality that he would have the Legislature pass a law making it compulsory to pay by test for ten or more years, until "the fellows" who have been making money out of quantity will have paid back to the producers of good milk the money that belongs to them.

He also says that if adding two per cent. to the actual fat readings in apportioning the proceeds were "explained, the intelligent ones will see through the plan, and the others are likely to concur"—whether they see through it or not, we suppose. His Bulletin does not explain it.

The ADVOCATE has no other desire but that the truth be got at with as little outlay and trouble and as soon as possible. Prof. Dean intimates that his further experiments from May to December bear out the indications of the "Disturbing Bulletin." If his plan is right, and that of Van Slyke and others, wrong, we hope he will be able to vindicate his position so clearly as to leave no room for doubt in the minds of the skeptical. The sooner everybody settles finally down to a uniform plan of using the test in paying for milk, the better it will be, and whatever is done quality must be kept up.—ED.]

Fancy Brands of Cheese.

BY S. P. BROWN.

In a visit to Wisconsin, to glean information in dairying (particularly relative to different kinds of sweet curd cheese), I found a great deal which was easily accessible, but a great deal more that, without some one acquainted with the foreign settlers to assist me, it would be next to an impossibility.

I first visited the University of Wisconsin, at Madison, where I found Dr. Babcock endeavoring to work out some way to overcome the evils of gassy milk in cheesemaking without material loss in the yield, flavor, etc. He had found it possible to sterilize it to such an extent as to make a solid curd (having no pin-holes), to introduce cultures of bacteria to develop the necessary lactic acid, but then flavor would be lacking. He had then found suitable culture to give the flavor, but had not carried it just far enough to indicate the necessary relative proportions of these cultures to use to insure desired results. However, I believe Dr. Babcock's sterling zeal will lead his work to some very valuable outcome in the manufacture of cheese.

I then went south to Green County, which I think, perhaps, is the home of the *sweet curd cheese* on this continent. Swiss, Limburger and Brick cheese are made here in quite large quantities; each kind ranks in quantity relatively from greatest to least, as named, but some brands of the Neufchatel are made in more limited quantity than these. Not a pound of Cheddar cheese is made in that county, and all that is consumed there is necessarily imported from neighboring counties.

The Cheddar cheese of that whole country, from Neenah, in the North, to Monroe, in the South, that I had an opportunity to examine, would rank as 2nd, 3rd and 4th class on a Canadian cheesemaker's shelves. A Mr. Aderhold, whom I met at Neenah, Wis., in speaking of his visit to the cheese exhibit in Chicago, at the World's Fair, said he had never seen so many as fine cheese in his life. This is a man who is handling cheese of all styles, by the ton, with Mr. N. Simon, of Neenah.

Canadian cheese has an excellent reputation, and it behooves us to keep that reputation *spotless* in every particular.

While our American cousins have not as good a reputation, for several good reasons, there are some things in reference to cheese which from them we may pattern with profit. They are catering for the demands of the markets at home; we are catering for the demands of foreign markets. While I would not for a moment think of slackening our advance in this direction, or abating the interest and zeal, still I think there is a field open for Canadians to supply their own markets. The export Cheddar cheese is an unquestionably good article, but there are thousands of tastes that prefer a softer, sweeter, richer or milder cheese, respectively. These may be supplied to some extent in the Twins and Young American styles, which are in reality only a modified form of the Cheddar cheese,—the former, made as flats, and shipped two in a box; the later, made Stilton size, and shipped four in a box—both made a little softer and sweeter;

so that but little extra expense is necessary to supply this demand, and always at a good price. This is, perhaps, the most practicable kind to furnish. Then there are the purely sweet curd cheese—Swiss, Brick, Limburger, and the Neufchatel, which is not exactly a sweet curd cheese, but a fancy brand. Beside the Fromages, which are numerous, all of these might be made in limited quantities with respectable margins of profit, and by thus diversifying our output, the total profits would be augmented.

The Kingston Dairy School.

This school opened on Thursday, 13th inst., Prof. Robertson being present to deliver the opening lecture.

There are fourteen students for the first course; about evenly divided between the buttermaking and cheesemaking departments.

The first course includes Christmas week, and this fact has prevented many from coming. The second course, commencing on Dec. 27th, is now almost full, and applications are coming in rapidly for the later courses. The length of time which students will remain at the school varies from two weeks to three months, and probably averages about four weeks. Mr. J. A. Ruddick, the superintendent, is assisted in the work of instruction by Mr. L. A. Zufelt, who had charge of milk testing at the Guelph Dairy School last winter. Lectures are given on the following subjects: "Business Management," "Milk and its Preparation for Cheesemaking," "Cheesemaking," "Cheesemaking (the Mechanical Part)," "The Relation of Quantity of Fat in Milk to Quantity of Cheese and Butter," "The Mechanism of Cream Separators and other Machinery," "Care of Engine and Boiler," "Judging Cheese," "Milk and Milk Testing," "The Separation of Cream from Milk," "Ripening Cream and Churning," "Packing and Judging Butter," etc., etc.

Dairymen's Convention at Stratford.

Knowledge is power. The dairyman who possesses it has more power and is better able to do his work than the one who does not. This is said to be a practical age; but before he can put into practice the best methods of modern dairying, the dairyman must have an intimate knowledge of these methods, and be able to apply them to his own particular branch of the business.

The Annual Convention of the Western Dairymen's Association at Stratford, on January 15th, 16th and 17th, will be an important factor in distributing knowledge of the dairy business. Every dairyman and farmer should make a strong effort to attend this gathering, and profit by the important addresses which will be delivered. Hon. John Dryden, Toronto; Hon. Thos. Ballantyne, Stratford; John Gould, Ohio; C. H. Everett, President of the Wisconsin Dairymen's Association; Prof. Robertson, Dominion Dairy Commissioner; Prof. Fletcher, Experimental Farm, Ottawa; Prof. Dean, Ontario Agricultural College, Guelph; D. M. MacPherson, Lancaster; J. C. Chapais, Quebec, and a number of other able and practical speakers will address the meeting. His Excellency the Earl of Aberdeen, Governor-General of Canada, has been invited.

POULTRY.

Pure-Bred vs. Common Fowls.

BY JOHN J. LENTON.

The interest in thoroughbred poultry has never been so great as in the past season. Since their more general use, both poultry and eggs have greatly increased; and this increase is largely due to the great improvement in the flocks, through the influence of thoroughbred birds. I would respectfully suggest to all interested in poultry, to get a few thoroughbred fowls. It is a waste of time and money to keep common stock. Get some variety from a reliable breeder, and test the difference: by that measure we all consider most important, viz.: the pocket.

I have proved it. A few years ago there was a great discussion on this subject, some claiming that common fowls would do as well; i. e., give as much profit, or even more, than pure-breds, with the same feed and attention. I gave them a fair trial for one year, and satisfied myself there was most money in the pure-breds. Where I was getting on an average a dozen eggs per day from twenty thoroughbreds, in the winter, I was only getting three or four, and none some days, from the twenty common ones, with exactly the same care, feed, etc.; then the chicks from the common birds were only fit for market, and there is not so much profit in them as in stock chicks. It must be remembered that fowls of the same breed are not all of the same value. If you desire birds for exhibition purpose, you will have to pay more for them than if you only intend them to produce eggs and fowls for market. Though in every sense thoroughbred, they may not be so beautiful in plumage, perfect in form, etc., which discounts them for show purposes, but does not diminish their useful qualities. The chicks, from a pair of fowls will vary in excellence, just as the children of a family, but the best and most perfect specimens, properly mated, are more certain to transmit their perfections to their progeny. I might say in passing that the male bird is really the best half of the breeding pen; hence the necessity of procuring a good one. There are few more attractive sights than a yard of uniform pure-bred fowls.

Now, when a fancier culls his flock, and selects his birds for exhibition and sale, carefully excluding all that do not meet his entire approval, he cannot and will not sell them for what people call cheap prices. There is as much room for difference in thoroughbred fowls as there is in horses or any other stock; some are sure to be of more value than others. It is only because poultry-keeping has been so under-estimated that this fact has not been more generally recognized, except among fanciers.

I have often heard the remark that the care and attention bestowed by the fancier on his stock is calculated to produce debility and delicacy of constitution, whereas the v. y. reverse is the case. The fancier studies the requirements of the birds, and provides everything his observation has shown to be needful for them. No breeder would be bothered with a lot of sick fowls. His aim is to have the best birds that can be raised; and anyone who knows anything of breeding stock will agree with me when I say he cannot get beautiful, large, well-grown chicks from weakly breeding birds. Indeed, this care is the very thing that gives the fancier a chance to sell his stock, for the most attentive breeder will best carry his birds successfully through our long, cold winters.

GARDEN AND ORCHARD.

Pruning Fruit Trees.

BY A. C. ATWOOD.

In years gone by, when nothing but natural fruit was grown, and when the fruit was picked off the ground, after having been shook by the boys or blown down by the wind, systematic pruning was hardly necessary, but now that our trees are all grafted, and our fruit is, or ought to be, all picked by hand, a proper system of pruning is of the utmost importance. In order to have a correct knowledge of the art of pruning it is necessary for the operator to make himself acquainted with the natural manner of growth of the varieties, as no two grow alike. It is also almost necessary for him to have taken a course at picking apples. When a tree is first planted no close pruning should be practiced—all that should be done is to cut the limbs so as to compare with the curtailed strength of the root. And in passing, I desire to say that no man should entrust another to prune his orchard any more than he would engage another to eat his dinner. If he does not feel qualified for the work, the sooner he learns the better. In pruning, three objects should be aimed at: first, strength of top, symmetry and beauty of tree and ease in picking the fruit.

At the very outset, I may say that two conflicting theories exist. Some advocate the low head, formed about three feet from the ground; others the high head, about five feet six inches from the ground. The latter I advocate and practice myself. To my mind the low head system is calculated only for garden culture. I am aware of no real advantage that the low head has over the high, whilst the high head has many very important advantages over the low, such for example as the ease in cultivating, for I am one who believes in the system of cultivating an orchard, which does not necessarily mean hard cropping. As farmers, we are compelled to rush our work, and in order to do so we must have high tree heads, so that our team can pass under. Again, all land is made fertile by the action of the sun. Soil upon which the sun never shines soon becomes hard, sour and unfruitful, as in the case under low heads. There is a great difference of opinion about the proper time to prune. From observation, I prefer from the middle of March to the 10th of April; then again in August. Upon no account attempt to prune from the middle of April to the 1st of July, and I regard late fall, early and midwinter also objectionable. In pruning, whenever done, make a close, smooth cut. After the tree has been planted one year the forming of the head should commence. It is impossible, and, indeed, unnecessary, to form every head exactly alike, but to all intents and purposes they can be made similar. In doing so all crotches should be avoided, whether composed of two or three limbs. In case two, three or more limbs branch equally out from each other, as they frequently do, about three feet from the ground, and it is desired to form the head five feet six inches high, before removing any of the limbs draw them all together, and tie them with a string. They are about sure to draw each other to a common straight centre. Let them remain so one year, and the following spring select the straightest and best, and remove the others. A straight trunk will thus be obtained to the required height. November is the time to begin to form the head, and in doing so not more than five or six main branches should be used. A very serious mistake is frequently made by leaving too much timber in the head to start with. It must be borne in mind that each of those foundation limbs will in time increase in size to from five to seven inches in diameter, and the room they will require then should be given them at the start. If the heads are formed at the proper time and in the right manner, and a regular system of pruning is practiced each year, it will seldom be necessary to remove a limb over one inch in diameter, even after the tree has attained, so to speak, its full growth. I am sure you have all noticed how difficult it is to gain an entrance into the top of some old trees from the fact that the foundation limbs have been left so close together that it is impossible to insert the end of a ladder be-

tween any two of them. This difficulty can be obviated in forming the head by leaving two branches sufficiently far apart so that even after they grow large there will be sufficient room for a ladder and for a picker to pass up and down with a basket easily between them.

For a few years a step-ladder is required to stand on while pruning, but about the time the tree begins to bear a step-ladder may be discarded, and in its place use a common light ladder, seven or eight feet long. From the very start, in approaching a tree each year to prune, take half a minute for observation in order to ascertain what your calculations were in regard to it the year previous, hence the necessity of the owner doing his own pruning year after year. Place the end of the ladder in the entrance to the head prepared for it, and as you step up, if any branches interfere with your upward movement, remove them, or else, if there is room for it, turn them in another direction. I wish to say here that when a person goes into the head of a tree, either to prune or pick, they should have shoes with a very low heel and without nails of any sort. In cases where two limbs cross each other, and when two run in the same direction, or where one is close upon another, remove one of them; also remove any that will interfere with the free movement of the fruit picker upward along each of the foundation limbs, and upwards through the top of the tree. Brush in the centre of a head does nothing but harm. I like to give the sun a chance to shine in centre of the top, the fruit then will be as good and well colored there as on the outside. A good deal of heavy pruning can be saved by removing the spurs at a year old, or as many as are not required. Any open parts in the head can be filled by throwing a branch in that direction, ever bearing in mind the old adage, "As the twig is bent the tree is inclined," and nothing is more easily done than to change the direction of a limb. If it is desired to turn it to the left, prune off the upper right hand side of a left hand bud or twig. If it is desired to turn it to the right, vice versa. If it is desired to head up, as is necessary in pruning such trees as the R. I. Greening, prune on the under side of an upper side bud. As in the case of a Northern Spy, when it is necessary to head down and spread the top, simply prune on the upper side of an under side bud or twig. Some of you may be ready to say, and even some whose orchard does not exceed a dozen trees, that this is all very well in theory, but that it is impossible for a farmer, for the want of time, to practice such niceties. Well, friends, fortunately in this particular I am not preaching what I do not practice. I have the third largest orchard in the country, numbering some nine hundred trees, covering fourteen acres, and cordially invite any of your readers to come and see my system of pruning fully exemplified.

Purchasing Nursery Stock.

Complaints are often made that fruit trees purchased from nursery agents are not true to name. A solution of this difficulty was made at the late "Experimental Union" held at the O. A. C., where it was claimed that the trouble often lies in the wording of the order brought round by the agent and signed by the purchaser. It is this: "If we have not got the varieties asked for, will ship our next best." This, of course, gives the nurseryman, or agent, if unscrupulous, the privilege of dealing off all surplus stock at the price of No. 1 trees or plants. It was recommended to buy direct from a reliable nursery, or notice all that is on the order signed.

Shrinkage of Cattle in Shipping.

Dr. J. W. Ward, an Iowa cattle feeder and shipper, gives in the Indiana Farmer the following as his own experience in preventing the large shrinkage of beef cattle when shipping to market:—

In trying to find out a better way than the usual custom of shutting off the grain feed twenty-four hours before shipping, we shut the water off the evening before and gave them all the corn they could eat the morning that they were to go. Having access to plenty of good hay all of the time, they were not disposed to eat much. Now, if you have ever noticed, a change of food after a constant diet of one thing is relished by others than steers. We had fed a lot of sheaf oats once a week, and, noticing that they left everything else and stuck to the oats until consumed, we concluded to fill the racks with them. Having done so, we loaded twenty 1,300-pound steers in each car and shipped them 300 miles with only 13 pounds shrinkage per head. At the end of their destination there was not a straw left, and we believe they would have eaten more if they had had it. It will be noticed that a stomach full of corn and oats caused them to drink better at the stock yards than if they had been salted at home. We never salt, because it acts as a cathartic. This is a great item of economy.

Corn or Oats for Horses.

At the Utah Experiment Station, in a test to determine the comparative feeding value of oats and corn for horses, it was found that the weight of the animals was more easily maintained on the corn ration. A summary of three experiments shows that during the summer a ration of corn and timothy was not as good as one consisting of wheat, oats and clover. During the winter, corn and timothy did as well as oats, clover and timothy in maintaining the weight. During the spring and summer, corn, wheat or bran, and mixed hay, produced more gain than oats, wheat or bran, and mixed hay.



THE LOGGERS' STORY.

VELMA CALDWELL MELVILLE.

It was New Year's Eve. The wind whistled through the pine forest surrounding a logger's camp in northern Wisconsin, and the moonlight caused long shadows to dance over the hard-frozen snow.

The man who prefers to live apart from family and civilization is the exception, not the rule, and the rough-looking fellows, grouped in the flickering firelight that last night of the year, felt dissatisfied and homesick.

Tell ye what it is, boys, cried Dennis Larry, suddenly breaking in upon a prolonged silence. "I don't go in much on this sort o' way o' livin'. It may do for work days, but when it come ter Sundays 'nd hollerdays, I, fer one, would like ter be with Maggie 'nd the boys."

"Stuff, Larry! yer a soft one," snapped Tom Riley, but this bit of bluff misled no one; they all knew that when Tom was extra snappish, he was longing most for his pretty Nannie, down in one of the cities on Lake Michigan.

"Yes, one can't quite forget he was born among folks," good-naturedly laughed a gray-haired logger, but there was no mirth in either face or voice.

One and another made some brief remark; then silence reigned again until broken by the deep, musical voice of Bart Rodgers, reciting Tennyson's "D Ath of the Old Year."

Bart was a born elocutionist, and so effective was his rendering that Dennis Larry involuntarily shivered and cast an awesome glance toward the door, at the words:

"His face is growing sharp and thin.
Alack! our friend is gone.
Close up his eyes; tie up the chin;
Step from the corpse, and let him in
That standeth there alone,
And waiteth at the door.
There's a new foot on the floor, my friend,
And a new face at the door, my friend,
A new face at the door."

"The pinery is no place for such as ye, Bart Rodgers," another old logger, John Cain, cried. "Why, ye've talent, man; talent, I say."

Bart gave a careless half-grunt, half-laugh, and resumed his pipe. By and by Tom Riley said: "Give us another, Bart; I just feel blue enough ter like ter hear what that blasted old Tennyson, or whatever his name is, hex ter say."

"Who's the soft one now, Riley?" sneered Larry.

"Never mind, boys," quickly interrupted Bob Whitehall, "let's have the verse."

Rodgers considered a minute, laid down his pipe, shifted his position that the firelight might not shine in his face, and began:

"Break, break, break,
On thy cold gray stones, O Sea!
His voice was strong and even until he came to the words:
"But O for the touch of a vanish'd hand
And the sound of a voice that is still!"

More than one unshaven face turned toward him to divine, if possible, whether the tremor and pathos were mere elocutionary acting or caused by real emotion, but the speaker's countenance was in the shadow.

"But the tender grace of a day that is dead
Will never come back to me."

The next minute Bart Rodgers had snatched his pipe and cap and was out in the moonlight.

"Fool that I was to attempt that, and on New Year Eve, too!" he muttered fiercely, as he strode off across the frozen ground.

"Queer fellow!" commented his late companions, and then, as often before, they fell to speculating on Bart's probable history. Aside from conjecture, they knew little or nothing about him; he had only been in their camp for the past six weeks, and, concerning himself, he was the soul of reticence. He walked a good five miles that night before he once more came in sight of the curling smoke of the camp-fire.

"Suppose they're all asleep; hope so, anyway," he soliloquized; then uttered a low exclamation of annoyance. Silhouetted against a background of snow s.ood Tom Riley, waiting for him.

"Glad ye've come, I'm gittin' cold," said the latter, stepping briskly forward.

"Did you want to see me?" The question was asked with scant civility.

"Come now," said Tom, "don't be grouchy jest because a fellow shows a little feelin' fer ye. I've allers liked ye, Bart, 'nd somehow I feel ter-night es if ye wa'n't right down comfortable in yer mind."

Rodgers laughed now, slipping his hand through his companion's arm.

"Tis good to have a friend. You're a good fellow, Tom, to think of me and stand out here till you're half frozen. No, I ain't comfortable in my mind, and probably never shall be. I made a blamed fool of myself just one year ago to-night, but all eternity can't remedy the matter. It's something like that 'tender grace of a day that is dead,' that 'will never come back again."

"It's a mighty bad thing to make a mistake," Tom sagely commented, "but when nothin' can't help it, it's worst of all."

"Exactly."

"Mebby, if ye could jest sort of hint at yer trouble, I could think o' somethin' comforten," suggested Riley.

"Oh, it ain't much to tell," answered Bart, touched, in spite of himself, at the queer fellow's evident sincerity. "As I said, I made a fool of myself, thereby ruinin' my chances for earthly happiness. I measured and judged one of the grandest women God ever made, by my own narrow, pusillanmous self; that is all. She bore it like the angel she is, but justly refused my overtures of peace, when I came to myself. It was just one year ago to-night that I spoke with her last; it has been an eternity to me; and last week I received a letter from a mutual friend, saying she is to be married soon. Well, I suppose it doesn't matter. You won't speak of this, Riley?"

"Upon my soul I won't, but I'm mighty sorry for ye. I think if anything should come betwixt Nannie 'nd me I'd let a tree fall on me."

"Then take my advice, old boy, and don't jump at conclusions or let jealousy get a start. I think most women can be trusted, even though they may seem to do unaccountable things."

"I'll profit by what ye say. And could ye lend me a sheet of paper; that purp chewed mine all up, ye know. I think I'll write Nannie a line to-night; Cain talks of going to town in the morning."

Half an hour later Tom Riley sat laboriously scrawling a "line to Nannie," while Bart Rodgers tossed uneasily beneath his coarse blankets. Thus the Old Year left them and the New Year found them.

A few days later the blooming maid of all work, in Dr. Smith's pretty village home, tripped into the study, duster in hand, singing: "When my lover comes home." She stopped, however, blushing rosier than ever when the pale, dainty daughter of the house arose from her father's desk.

"I didn't know as ye was here, Miss Orrie," the maid stammered.

"Yes, I am here, Nannie, and glad that you are so happy. I strongly surmise that that letter father tossed you at breakfast has something to do with it."

"Yer right, Miss, it was from my beau in the pinery, and— and—"

Here she broke off, redder than ever.

Orpha Smith smothered a sigh to say: "If you can trust me, tell me all about it, Nannie. I like to hear love stories." "Oh, it ain't no love story, only Tom's been naggin' about 'settlin', as he calls it, fer a'mos' two years, but I've rot to help the folks at home 'nd thought ez we'd better wait till he had more money. Of late he's been kind o' huffy; said ez I must be gittin' tired of him; but this letter sounds just like Tom. He says ez there's such a nice feller there in the camp—Rodgers he calls him—who's quarreled with his sweetheart 'nd 's most broken-hearted; 'nd this man says to Tom, 'Take my advice and trust a woman! He says ez he made a fool of himself a year last New Year's, 'nd that when he tried to make up, she wouldn't, and he didn't blame her. I see this sort o' scart Tom, 'nd he's tryin' to have me set the day, promisin' to work for our folks too."

Had Nannie been less confused and self-conscious herself, she must have seen that her companion turned red and white by turns, and that her great blue eyes were wide open, and full of some strange excitement.

"Better do as he asks you, Nannie," Orpha staided her voice to say. "What did you say the name of the man who has quarreled with somebody is?"

"Rodgers, I think, but mebby I'm wrong; I'll see," answered Nannie, drawing the precious letter from her bosom.

"Let me see it," Bart Rodgers; yes, that's it. Tom ain't no great of a scholar, neither be I, but we manage to make out."

"And did he say he tried to make up with—the lady?"

"Yes, but she wouldn't, and he didn't blame her."

"Thank you, Nannie; now I'll get out of the way."

With swift steps and a wildly-beating heart, Orpha Smith gained her room; could there have been any mistake! Had Bart sent her some message that she had failed to receive!

She had looked for one so long. It had never seemed to her that he could utterly disbelieve her protestations of fidelity, even though some one had tried to do her an injury. He had gone away soon after, without even saying good-bye or seeing her again. But what could her Bart Rodgers be doing in a logger's camp! Possibly seeking forgetfulness in change and hardships; or, though some of the purists are strongly suspected, a wave of color into the pale cheeks. But supposing her imaginings were correct, how could she ever manage to let him know!

At this juncture there was a gentle rap on the door.

"Come in, Nannie."

"Please, Miss Orrie, you seemed so taken up like with the story of the gentleman as quarreled with his sweetheart, 'nd so I looked over the letter agin, 'nd Tom says ez the gentleman says ez a friend has wrote him that his girl's goin' to be married right away."

"Oh, Nannie!" cried Orpha, tragically clasping her hands.

"It isn't so; he must not think so! Don't you see I am the girl, Nannie? What can I do?"

"Ye don't mean that ye be this Mr. Bart Rodgers' sweetheart?" she gaped, at length.

"Ye; it all happened you came, and I never received any message; and he went off without even saying good-bye."

"I'll write him to onct!"

"I will," she said.

Ten days later Bart Rodgers, in conventional costume, bounded up the steps of the Smith residence; the door seemed to open of itself and—al we know further is that there is to be a wedding soon; the somewhat purist is strongly suspected, but for lack of evidence nothing is said; and that, between Dr. Smith and "Bart Rodgers, Attorney at Law," Tom Riley and his Nannie will never want for friends and remunerative employment.

"Mighty glad yer told me yer story now, ain't ye, Rodgers?" Tom often queries.

"Bless you!" Bart replies.

Written for the Farmer's Advocate.

Now, farmers, attention,
To these simple lines;
I think I can give you
A cure for hard times.

A few years ago, then,
When land was too high,
A great many farmers
Were tempted to buy.

Then crops were a failure
And prices fell down,
And the cry of hard times
Came from country and town.

And most any farmer
Can tell you to-day
It takes all his time
To make farming pay.

If farming don't pay,
There's no 'trade in the land
Will pay any better,
You may understand.

There are more men than farmers
Have cause to complain,
As I have heard tradesmen
Again and ag-ain.

Take a good farmer's paper,—
And here I might state,
There's no better made
Than your own ADVOCATE.

When I took it first,
Sixteen years ago,
It came once a month,
Which was rather slow.

Now, every two weeks
It is here to the day,
With a good many pointers
To make farming pay.

And now every calling
And trade in this land,
They all have their paper,
So I understand;

To give them some pointers
On what for to do,
And this is a good one
For I give to you.

That I am a farmer,
I may tell you here;
And one of the ones
Bought his farm too dear.

Don't do as I've done, now,
But do as I say,—
If you do as I tell you
You'll make farming pay.

—Adare.

The minister of a pastoral parish in the south was a slow, precise, and pompous man. Though often angry, he never showed haste or impatience. The thunder-cloud settled on his brow, but the thunder was not heard. One Sabbath morning, a dog belonging to one of the shepherds followed his master to church, and when the psalm-singing began, the dog proceeded to howl lustily. This was insufferable. "Carry out that dog, John," said the minister to the beadle. "Carry him out," said John, quite loud; "if I had a piece of a stick, I'll gar him gang out on his ain feet."

THE QUIET HOUR.

"My Neighbor."

My neighbor met me on the street,
She dropped a word of greeting gay,
Her look so bright, her tone so sweet,
I stepped to music all that day.
The cares that tugged at heart and brain,
The work too heavy for my hand,
The ceaseless underbeat of pain,
The tasks I could not understand,
Grew lighter as I walked along
With air and step of liberty,
Freed by the sudden lilt of song
That filled the world with cheer for me.

Yet was this all? A woman wise,
Her life enriched by many a year,
Had faced me with her brave, true eyes,
Passed on, and said, "Good morning, dear."

Faithfulness ought not merely to lead us to do great things for God's service, but whatever our hands find to do. The smallest things are small only in themselves; they are always great when they are done for God, and when they serve to unite us with Him eternally. It seems to me that a soul which sincerely desires to belong to God never looks to see whether a thing is small or great; it is enough for it to know that He for whose love it is done is infinitely great.

If.

If any little word of mine
May make a life the brighter;
If any little song of mine
May make the heart the lighter,
God help me speak the little word,
And take my bit of singing,
And drop it in some lonely vale,
To set the echoes ringing.

If any little love of mine
May make a life the sweeter;
If any little care of mine
May make a friend's life the feeter;
If any lift of mine may ease
The burden of another,
God give me love and care and strength
To help my toiling brother.

The Religion of Doing.

Religion is not selfishness, nor coddling, nor moralizing, but it is visiting the fatherless and the widow and keeping one's self unspotted from the world; living with Christ and for Christ. Worship is not all of religion, though it is an important part. The church is a place where we are to get strength and power to do God's work. God cares not for the length of our prayers, or the number of our prayers, or the beauty of our prayers, or the place of our prayers, but it is the faith in them and the work following them that tells. Says a noted divine: "Believing prayer soars higher than lark ever sang; plunges deeper than diving-bell ever sank; darts quicker than lightning ever flashed." But such a prayer is backed and braced and made an instrument of mighty power by the whole man resigning himself to the stream of divine influence which drops from his hands, pours from his eyes and issues in works of holiness and love. Don't talk of your weakness; that your lot is to be but a hearer, not a doer; that your hands are full; that your home duties are exacting; that the cares of your family claim so large a share of your attention; that your bodily health is not good. Don't count up your ills, your defects, your weaknesses; but count up your blessings, your powers, your talents. Think of the souls that you may bring to God if you rightly go at it. The formal talk with a goodless man or woman, the formal talk which begins with a sigh and ends with a canting, feeble suggestion that he or she should attend church, is not what is wanted to be a doer of the Word. What is needed is the heart-throb of a man in dead earnest. They said Gibraltar could not be taken. It is a rock six-tousand hundred feet high and three miles long. But the English and the Dutch did take it. Artillery, and sappers, and fleets pouring out volleys of death, and men reckless of danger, can do anything. The stoutest heart of sin, though it be rocked and surrounded by an ocean of transgression, under Christian bombardment may be made to hoist the flag of redemption.

Mites.

There are some people who get weary of life's work and become disheartened because they are kept all the time doing little things. They see here and there a man or woman doing great things, and their lives seem very unimportant in comparison. They long to be doing great deeds. They think God does not care much for the little they do. To all such the blessed Master says: "He that is faithful in that which is least," is the faithful man. Whoever does his lowly, humble work well and faithfully, day by day, and hour by hour, is pleasing God just as well as he who does great things. And nothing is small in God's sight which is done for love of Him.

Great men came far with their wealthy offerings for the temple treasury. There were gifts of gold and gifts of silver. The very smallest offering that day was the gift of the poor widow who came, sandal-shod, wearing tattered garments, and bearing on her face the stamp of hard, grinding poverty. Her gift was so small that it would hardly be counted among the great gold and silver coins that were poured into the treasury.

But Jesus sat by and watched how men cast in, and He said that she had done more than they all. Her gift pleased Him most.

UNCLE TOM'S DEPARTMENT.

MY DEAR NEPHEWS AND NIECES:—

A Happy New Year to you, one and all! And I know you will all join me in saying, "God speed the old, all hail the glad new year!" Just as the knell of the dying year was sounding in our ears, an angel crept noiselessly forth, and in every individual life-book turned a fresh page—a page spotless save for the heading of golden letters—1895. It now remains for each of us to fill his page during the year; and how careful should we be when we consider that our writing will be ineffaceable!

Last year's scroll is already folded and laid away; perhaps, had we the privilege, there are many words and deeds inscribed thereon that we would desire to change, or even blot out forever; but that being beyond our power, let us profit by past errors and strive to fulfil on this pure leaf our ideal.

I feel rather flattered, boys and girls, by your kind words about my letters, and, in return, I can only say that if any words of mine have served to amuse, cheer, or instruct even a few, their mission is accomplished; and I am happy to have been the instrument, even in a small degree, of so good a work.

In our puzzle corner the contributions have become so few that the editor speaks seriously of discontinuing that feature, but for this I would be extremely sorry; we have had them so long that they seem to have become a part of my life, and I should be very lonely without them. Some of my family also, to whom I have mentioned the subject, express regret at their possible loss; so now we must either renew our efforts and arouse the dormant interest, or resign ourselves to the absence of an old familiar friend. I am desirous of giving the puzzlers another trial, but, of course, if anyone suggests a feature likely to be of greater interest, I will willingly set aside my feelings in the matter, and help on the good work, whatever it may be. So long as I continue to hear from the young readers of the *ADVOCATE* I shall be content.

Since writing you on Nov. 1st, I have received a very nice letter from T. W. Banks, in which he says he has derived much pleasure and profit from Uncle Tom's department. He then gives a partial list of the books he has read, which may interest his cousins, and so I will give it: Tom Brown's School-days, Tom Brown at Oxford, Robinson Crusoe, Gulliver's Travels, Little Wide Awake, Alphas of Tascate, Life of Lincoln, Life and Letters of Dr. Arnold, Ben Hur, Black Beauty, King Solomon's Mines, Life of Queen Victoria, Whittier's Poems, and Mrs. Hemans's Poems. Do you not think that a very fair start in literature? How many others of you have read those works? Another very interesting letter was from Irene M. Craig; I am sorry I have not room to quote from it also. Among other contributors were two old friends, Charlie Edwards and Ed. A. Fairbrother. By the way, Fairbrother talks of settling down out West (I wonder what news we shall have from him next! Who knows?); but still he declares he is yet a thorough Canadian. Some of my writers curtail their letters for fear Uncle Tom will not have time to read them; but what a mistake! Reading them takes such a little while, and gives so much pleasure!

At the beginning of the year is the time to renew subscriptions, and also to secure one or more new subscribers, gaining some of the serviceable premiums offered and at the same time helping to improve the *ADVOCATE*, as the greater the number of subscribers the better able the managers will be to carry on the good work. Of course I refer to the subscribers who send in more than their names. It is very strange how careless some people are about paying promptly their newspaper subscriptions, generally deferring to do so from sheer negligence and not from inability. Perhaps they think no capital is necessary to carry on this business, or that the editor is an ethereal being, and therefore unneeded of the necessities of life and the wherewithal to procure them. But, alack and alas! the editor is "of the earth, earthly," and has all the wants of other dwellers on this mundane sphere, so it would be a humane act to induce as many as possible to be prompt in their payment of such trifling debts, and thus cheer up and render happy the new year of those who supply, on their parts, so much useful and entertaining reading.

Dear me! what a funny thing for Uncle Tom to write about, you may think; and really it strikes myself as rather a peculiar subject; but, indeed, I sympathize with editors in general—they have so much to contend against, and too often get so little thanks; and when one's sympathies are aroused,

even a man will have recourse to women's refuge-words.

The dying fire is a silent reminder that I have written at great length; so, as I have thus far deviated from my usual course of giving you a little quotation, I will terminate with the following, which is quite appropriate at this season:

"There's the marble, there's the chisel,
Take them, form them to thy will;
Thou alone must shape thy future,
Heaven grant thee strength and skill."

UNCLE TOM.

Diogenes in Search of an Honest Man.

FROM THE ORIGINAL PAINTING BY SALVATOR ROSA.

This eccentric character was born about 412 B. C. His youth is said to have been spent in dissolute extravagance; but at Athens he was attracted, singularly enough, by Antisthenes, the founder of the Cynics. Antisthenes was a bitter and sarcastic declaimer against nearly all prevailing customs, not merely what he regarded as inconsistent and insincere. He did not attract many disciples, which fact, it is alleged, led him to drive off those who would have followed him. Diogenes was not thus to be disposed of. Antisthenes lashed him with his tongue and beat him with sticks, to no purpose;

accustomed and this man's utter contempt of worldly rank, that he is reported to have said, "If I were not Alexander, I should wish to be Diogenes." Diogenes had not much confidence in the general integrity of his fellows, and to give emphasis to his opinion, he is said to have gone about in daytime, with a lighted lantern, in quest of an honest man: as though the unaided sunlight were not sufficient for so difficult an undertaking. While journeying from Athens to Aegina, the ship in which he travelled was taken by pirates, and Diogenes was exposed at Crete for sale as a slave. When asked what business he understood, he replied, "How to command men," and asked to be sold to some one who needed a ruler. He was purchased by Xenias of Corinth, whose master he virtually became. The picture of Salvator Rosa is characteristic at once of the subject and of the painter. This able representative of the "Naturalisti" was born at Naples, in 1615, and died in 1673.

From London to London.

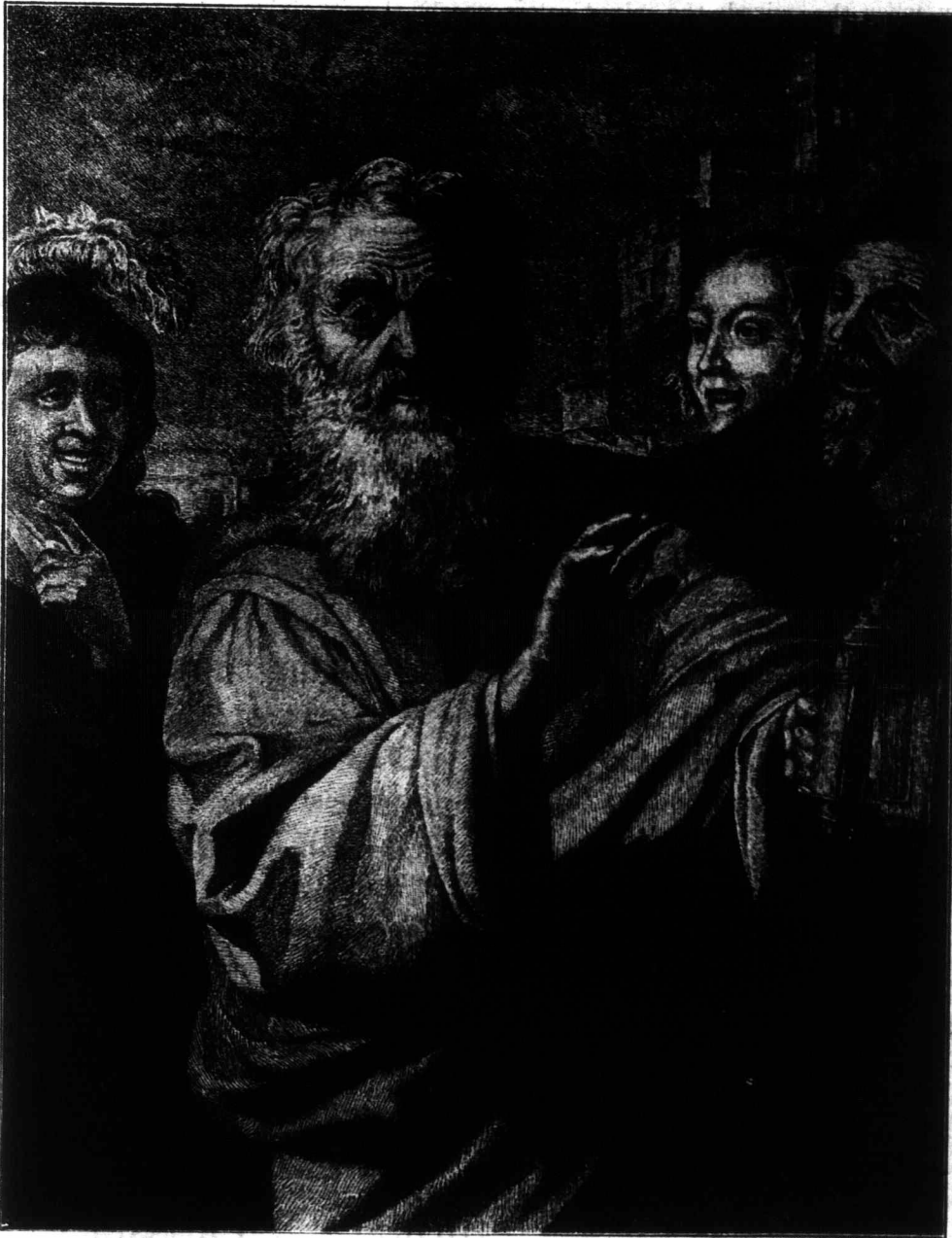
Fashionable weddings in winter are rare, but we have had several of them lately. The union of church and stage was strikingly exemplified the other day, when the daughter of a Church of

England clergyman, who has herself adopted the stage as a profession, was married to a well-known actor. Mr. Arthur Bourchier comes of an old family, being a descendant of the famous Earl of Rochester, of Charles I.'s time. Miss Violet Vanburgh, as she is known to the public, is the daughter of the late Prebendary Barnes. The guests included many of the best known people in London society, both in the fashionable and artistic world.

The most imposing wedding, however, that has taken place in England since the marriage of the Duke and Duchess of York, is that of Lady Margaret Grosvenor, daughter of the Duke of Westminster, and Prince Adolphus of Teck. The position of both bride and bridegroom would alone be sufficient to ensure public attention, the Duke of Westminster being one of the richest and most popular men in England, and Prince Adolphus being the brother of the future Queen. The ceremony, which was a most brilliant spectacle, took place in the private chapel at Eaton Hall, the chief country seat of the Duke. The bride's dress was white satin, trimmed with Brussels lace and clusters of real orange and myrtle blossoms; her bouquet was of white roses and magnificent trailing spikes of white orchids. She wore a splendid collar of diamonds and pearls, a present from her father; a diamond and pearl bangle, given by Princes Francis and Alexander of Teck, and a diamond hair-spray, given by her brothers and sisters. Her wedding-veil was that worn by the Duchess of Teck and the Duchess of York at their respective marriages. It was fastened at the back by a diamond and pearl crescent, the gift of the Prince and Princess of Wales. The six bridesmaids, four of whom were children, wore white ondine silk, with white chiffon and pale blue velvet; their hats were white felt with soft full crowns of pale blue velvet, trimmed with white ostrich feathers. They carried bouquets of pale pink carnations. The bride's going-away dress was blue velvet, trimmed with sable, the cape being lined with ermine. A list of the presents would fill a

column of this paper. It is a little hard on other less fortunate mortals that those who are already in the highest and wealthiest position should be the ones to receive the most splendid gifts. The Queen's presents were a large silver oval tray and a diamond swallow brooch. The Prince and Princess of Wales and their children, in addition to individual presents, united in giving a chest filled with silver for the table. A splendid trousseau has been provided for the bride. I hear that pale blue is one of her favorite colors, and that in deference to the wish of Prince Adolphus of Teck, her sleeves have not been made up in the extravagantly full style which is the fashion just now, but which has never been adopted by the Princess of Wales or the Duchess of York.

The pantomime this year at Drury Lane is "Dick Whittington," and the chief spectacular feature is a gorgeous Chinese procession. For the last few months the stage at this theatre has been occupied by one of those widely-popular and thrilling dramas for which the manager, Sir Augustus Harris, is famous. The love of horses is ingrained in most Englishmen, and in "The Derby Winner" we are carried straight away into the exciting atmosphere which surrounds this national event. We see the horses being trained on the Yorkshire Downs, we are present at an auction at Tattersall's, and finally the finish of the great race is run before our eyes,



DIOGENES IN SEARCH OF AN HONEST MAN.

and we see the colors of the much-tried hero carried triumphantly past the winning-post. An amusing incident happened on the opening night, when the horse that played the leading part of "Clipstone," the "Derby Winner," got nervous and actually refused to come up to the winning-post. The audience had to "make-believe" very hard, but they were scarcely likely to be too severe at the close of such a stirring play. The character of the "sporting Duchess," who plays a very important part in coming to the rescue of the hero at a critical moment, recalls a well-known figure in English society, the late Dowager Duchess of Montrose, who died a few weeks ago at the age of eighty-one. Her third marriage, a few years since, to a man about fifty years her junior, made somewhat of a sensation at the time.

Those who like music and are admirers of the Gilbert-and-Sullivan operas, are in luck just now, for they have a double supply to choose from. Gilbert and Sullivan have divided, but the result is not so disastrous as on a former occasion, both of the disunited specimens being excellent. At the Lyric Theatre may be seen "His Excellency," in which Mr. W. S. Gilbert revels in his usual whimsical spirit of topsy-turvydom, admirably set to music by Osmond Carr. The scene is laid in Denmark, at the beginning of this century, when the throne was temporarily occupied by the Prince Regent, Frederick, owing to the illness of the king. The object of this merry little opera is to hold up to fitting contumely the mischievous pranks of a practical joker, and to show how the evil results rebounded on his own head. At the Savoy Theatre we have another bright and entertaining little piece called "The Chieftain," where Sir Arthur Sullivan supplies the music and F. C. Burnand, editor of Punch, the words. Admirers, therefore, have the opportunity of deciding which factor contributed most largely to the success in the combined attractions of the Gilbert-and-Sullivan alliance.

THISTLE.

STOCK GOSSIP.

Elsewhere, Shore Bros., White Oak, announce the sale by auction on Jan. 17, of their entire herd of Scotch Shorthorns. Write for catalogue.

Mr. Arthur Johnston, of Greenwood, writes of his Indian Chief as follows: "The old bull is in the very best of form in his ninth year. He is running in the fields with the cows up to this date, Dec. 21st, during the day. He is as alert, active, prompt and sure as any two-year-old I have ever known. His flesh is as smooth, even, and mellow as the flesh of any two-year-old heifer—not a bare spot on him. His sons are bidding fair to rival himself as getters of prize winners. A son of his, India Chief, was the sire of the first, second, and third-prize heifer calves at the Toronto Industrial Exhibition in 1894, as well as the first-prize bull calf at the same exhibition. Besides this, these same granddaughters of Indian Chief were winners of first prize for the four best calves bred and owned by the exhibitor, and these honors were won against an excellent ring of calves—record unequalled. Another son of Indian Chief, Norseman, was the sire of four calves that won third prize in the same competition. Thus eight out of the twelve winners in this capital class were grandsons and daughters of Indian Chief. In 1893 another son of Indian Chief, Nonpareil Chief, was almost as successful at the Toronto Industrial Exhibition. Our young bulls by Indian Chief are growing and promising exceedingly well. We have eight of them now ready for service, and eight more will be fit for service in February. The two white ones are simply beautiful. Come and see them. 'No business, no harm,' is our motto."

Mr. J. P. Phin, "The Grange," Hespeler, writes us as follows respecting his sale which took place on the 20th inst.: "The day was all that could be desired, and a good attendance was the result. The prices realized were fairly satisfactory, considering the low price of mutton sheep and lambs. The ewes and ewe lambs were all sold and averaged \$10.30 each. I have still 26 imported ewes and ewe lambs, which were not offered for sale, left; also 15 ram lambs. The following is a list of the principal purchases:—John Simpson, Nasagaweya, Ont., 4 shearing ewes; Wm. Moore, Georgetown, Ont., 2 shearing ewes; Robt. Moody, Guelph, Ont., 1 pair shearing ewes and 4 ewe lambs; M. Lorrie, Rockwood, Ont., 1 pair shearing ewes; J. R. Suddaby, Harrison, Ont., pair shearing ewes; Gavan Goodall, Galt, 1 pair shearing ewes and 2 ewe lambs; J. C. Panabaker, Hespeler, 1 pair shearing ewes, pair aged ewes and pair ewe lambs; John Weir, West Flamboro, 1 pair shearing ewes, pair aged ewes and pair ewe lambs, also 1 ram lamb; Robt. Marshall, Elora, 1 pair aged ewes; Alex. Barrie, Galt, 3 pairs aged ewes; Hugh Arthur, Branchton, 1 pair aged ewes; Geo. A. Tilt, Blair, 3 pairs aged ewes and three ewe lambs; Wm. Bowman, Mount Forest, 2 pairs aged ewes and 1 pair ewe lambs; James Crane, Guelph, 2 pairs ewe lambs; Harry Cass, Buffalo Hart, Ill., 1 ram lamb; John Scott, Killeen, 3 ram lambs; J. Cowan, Galt, 1 ram lamb; James Hunter, Alma, pair ewe lambs; Alex. Reid, Killeen, pair aged ewes; N. G. Harvie, Kirkwood, pair ewe lambs."

SIMMONS & QUIRIE.

Shorthorn Cattle, Berkshire Swine—Money-making Sorts.
The matchless bull, ROYAL SAXON = 1637 = (by Imp. Excelsior), 1st at Toronto, 1891, heads the herd, with BARMPTON M. = 18240 =, by Barmpton Hero = 324 =, in reserve. Female representatives of the celebrated Mina, Strathallan, Golden Drop and Mysic families.
The Berkshires are choice, prize-winning stock. Easy to feed, quick to sell.
Stock for Sale. C. M. SIMMONS, Ivan P.O., Ont. 1-1-y-om. JAMES QUIRIE, Delaware, Ont.

THE SOCIAL CORNER.

Under this heading, communications relating to the home or any subject of interest will be published and questions answered. MINNIE MAY.

DEAR MINNIE MAY,—Seeing your letter of the 15th, asking for communications, I would like to ask for information on a very troubled question. My hair is red, and a very uncompromising red. Please tell me what colors will suit me best. I am so glad we are to have a Social Corner, and will try to write often. NELLIE K.

[If the women with red hair would only study how to use it becomingly, they would be proud of the distinction of having it, instead of dissatisfied with their fate. There seems to be an impression among women with red hair that almost any shade of blue can be worn by them, because, as a usual thing, they have fair and delicate complexions. But, as a matter of fact, blue is the one color above all others that they ought to avoid. The contrast is too violent, and the combination is not harmonious. The shades most suitable to be worn with red hair are bright, sunny brown, and all autumn leaf tints. After these may be selected pale or very dark green—but never a bright green—pale yellow and black unmixed with any other color. Solid colors are more becoming to red-haired people than mixed, the mixed colors nearly always giving a more or less dowdy appearance. In fact, red hair is usually so brilliant and decided that it must be met on its own ground, and no vague, undecided sort of things should be worn with it.]

DEAR MINNIE MAY,—I have some colored silk embroideries which have become soiled; can you tell me how I may clean without injuring or perhaps totally destroying them? "ROSEBUD."

[Immerse the articles in gasoline, let stand for a time, then rinse in some clean gasoline; hang outside in shady place till the odor disappears, then press carefully. I have read of one lady who cleaned the trimmings of all kinds and also the straw

of her summer hats in the same manner. The gasoline thus used, if allowed to settle, will pour off clear and be none the worse; it is also considered preferable to benzine for cleaning kid gloves.—M. M.]

DEAR MINNIE MAY,—I will just take a seat in the Corner for a few minutes, and meanwhile will tell of an inexpensive and quaint birthday gift that any one may make. Take four pieces of tan-colored blotting-paper, cut in form of a shoe sole, tie together with ribbon the same color, and paint or gild this inscription on the top sheet: "I send you this birthday offering from the bottom of my soul." Another thing that may be useful to some is a little item I read recently about restoring the whiteness to flannel that has become yellow from washing or age: Dissolve thoroughly one and a-half pounds of Marseilles soap and two-thirds of an ounce of sal-ammoniac in fifty parts water. Put the flannel in the solution and leave for some time, stirring occasionally, then wash in clear water. RUTH GORDON.

[Ruth is welcome to occupy a seat in our Corner for more than a few minutes, and we hope she will call again.—M. M.]

Answers to December 1st Puzzles.

- 1.—Pleasant. L O O K O U T
- 2.— O S H K O S H
- N I A G A R A
- D U N D R U M
- O A K L A K E
- N E G R A I S
- 3.— Z E A L O T
- E A G E R
- A G E D
- L E D
- O R
- T

Are any of our readers desirous of having patterns for knitted or crocheted lace? These edgings, made of silk, are now used for dress trimming, and if desired, we can furnish some suitable for such purpose.—MINNIE MAY.

THE PEOPLE'S WHOLESALE SUPPLY CO.

35 Colborne St., Toronto,

are prepared to supply everybody with

Dry Goods,
BOOTS AND SHOES, GROCERIES,
Hardware, Furs, Paints, Oils, Sewing Machines,
WATCHES, CLOCKS,
Silverware, Jewelry,
or anything you may need, at lowest prices.

OUR MOTTO IS—We always lead, we never follow, and we will be undersold by none.

Our goods are all new and bought in the lowest markets for spot cash. No deception, no humbug. Everything is of the best to be had. Send for samples of our Teas, Sugars and Dry Goods, and if our Boots and Shoes are not the best value, both in appearance and quality, you ever received, return them at our expense.

Be sure and see our Patron Singer Sewing Machine, price, \$16 00, freight paid in Ontario, \$17.00, paid to Manitoba, and guaranteed for five years.

In future address all your orders to

R. Y. MANNING, Manager,

See letter on page 17.

1-f-om

35 Colborne Street, Toronto.

EXTENSIVE SALE OF SCOTCH SHORTHORNS.

J. G. TAYLOR, Rockwood, Ont., Wellington Co., will sell on Wednesday, January 16, 1895, at 12 o'clock, his entire herd of fifty head—ten Bulls and forty females in good breeding order. Catalogue on application. Terms—Twelve months' credit on approved joint notes, or six per cent. discount for cash.

1-a-o-m INGRAM & HOFFERNAN, Auctioneers.

AUCTION SALE —OF SCOTCH-BRED— SHORTHORN CATTLE

—AT— THORNVILLE STOCK FARM

Five Miles South of London, on

THURSDAY, JANUARY 17th, '95.

We intend selling our entire herd of Shorthorns to the highest bidder. Twenty-two females and eight bulls, including the Cruickshank bull Diamond Prince, by Prime Minister.

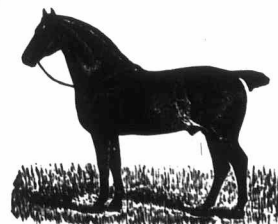
SHORE BROS., White Oak, Ont. Send for Catalogue. 1-a-om

FARM MANAGER.—Experienced and energetic man, with good habits, wants a position in charge of either a dairy or stock farm. Address Box 537, London, Ont.

HORACE N. CROSSLEY,

PROPRIETOR OF THE SANDY BAY STOCK FARM, Importer and breeder of

SHIRES, HACKNEYS, AND COLLIE DOGS.



The above stud, though only commenced in 1890, has achieved unparalleled success at all the leading Canadian shows, such as Montreal, Toronto and London. Also at the CHICAGO WORLD'S FAIR. The most notable in this stud are, the Shire horse Bravo II. 1235, winner of first at Toronto, Montreal and London, and also beating all Clydes at the latter show in the sweepstakes. Hackney, Fireworks No. 3602, winner at Chicago, Toronto, and London. Shires and Hackneys always on hand for sale. For further particulars apply to the Proprietor, ROSSEAU, Muskoka. 10-y-om

1864. HILLHURST FARM. 1894.

HACKNEY HORSES, Shorthorn and Aberdeen-Angus cattle, Shropshire and Dorset-Horn sheep.

M. H. COCHRANE, 16-2-y-om HILLHURST STATION, P Q

Horse Owners! Try

GOMBAULT'S Caustic Balsam

A Safe Speedy and Positive Cure
The Safest, Best BLISTER ever used. Takes the place of all liniments for mild or severe action. Removes all Bunches or Blemishes from Horses and Cattle. SUPERSEDES ALL CAUSTIC 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, Ont.

Shorthorns, Shropshires and Berkshires.

Having rented one of my farms, I will sell at very much reduced prices, six young Shorthorn bulls; thirty Shropshire ewes, in lamb to imported ram; fifteen ewe lambs; six Berkshire sows, due to farrow in March and April, and two boars, six months' old. All registered and choice quality. W. G. PETTIT, 13-y-om Freeman P. O., Burlington Stn., G. T. R.

CARGILL HERD OF SHORTHORNS.

Stock from imp. bulls and imp. and home-bred cows. Catalogue now in printer's hands. Send for one. H. CARGILL & SON, CARGILL, ONT. 11-y-om

H. I. ELLIOTT, BREEDER OF Scotch Shorthorns and Southdown Sheep. RIVERVIEW FARM, 'Imp. King James,' at head Danville, P. Q. of herd (46219). 15-1-om

DEEP MILKING SHORTHORNS

For sale, 4 young bulls, 2 reds and 2 roans also yearling heifers and heifer calves. The Golden Drop bull, Golden Nugget = 17518 =, by Imp. General Booth = 6365 =, (54353), at head of herd. Address WM. GRAINGER & SON, London, Ont. 13-y-om



I HAVE Eight Bulls FROM 10 TO 15 MOS. FOR SALE. My best dams, and got by PREMIER EARL and INDIAN CHIEF, which I will sell very reasonable. Clarendon on C.P.R. and Pickering on G.T.R. Write for prices or come and see my stock. DAVID BIRRELL, Greenwood, Ont.

For Sale. TWO SHORTHORN BULLS, also several CHOICE BERKSHIRE SOWS, nine months old. JOHN RACEY, Jr., Lennoxville, Que. 17-1-y-om

W. C. EDWARDS AND COY
IMPORTERS AND BREEDERS.

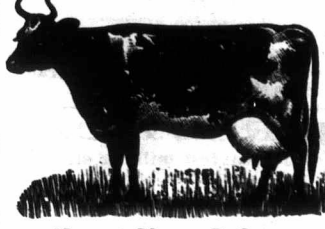


PINE GROVE STOCK FARM,
Rockland, Ont.
SCOTCH SHORTHORNS.
The imported Cruickshank nall Grandeur is at the head of this herd of Imported and Home-bred Cows and Heifers of the most approved Scotch families.
ALEX. NORRIE, Manager.

ELMHUR ST STOCK AND DAIRY FARM
CLARENCE, ONT.
Shorthorns, Shropshires and Berkshires

Our flock is from the choicest English flocks, headed by the ram sent out by Mr. Thos. Dyke also milking Shorthorns, with imported bull Pioneer at the head of the herd.
HENRY SMITH, Manager.

Laurentian Stock AND Dairy Farm

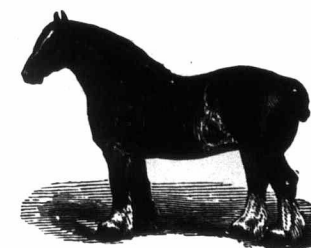


NORTH NATION MILLS, P. Q.
Ayrshires, Jerseys and Berkshires.
Imported Emperor at the head of a grand lot of Imported and Canadian-bred Ayrshires; also St. Lambert Jerseys and Imported Berkshires.

STOCK GOSSIP.

The attention of our readers is directed to the new advertisement of Messrs. Simmonds & Quirie, which appears in this issue.
Thomas Shannon, Cloverdale, B. C.—“Our sales during the fall have been as follows:—One boar, Alex. Lochore, Lytton, B. C.; one boar, John York, North Arm, B. C.; one sow, Mackie Bros., Eburne, B. C.; one boar, Tolmie Estate, Victoria, B. C.; one boar, H. F. Page, Mission City, B. C.; one boar, John Wade, Elgin, B. C.; one sow, W. Brown, Clover Valley, B. C.; one boar, Oppenheimer Bros., Langley Prairie, B. C. James McCormick & Son, Rockton, Ont.—“Our Ayrshires are doing nicely. We are having a great many inquiries for young bulls and heifers. Have sold the fine young bull, Grand Duke, to Mr. R. E. White, of Perth. He is from the famous old cow, Primrose 1th, winner of first for cow and two of her progeny at the last Industrial Fair, and she is the dam of Primrose 6th, the first-prize cow in the aged class, and his sire is Sir Laughlin, winner of first prize and sweepstake at the Industrial Fair. We have several young bulls on hand yet, among them being Guy Fox, winner of second prize at Toronto. This is a very fine bull, and if he keeps on improving will soon beat his illustrious sire, Sir Laughlin.”
John Pike & Sons, Locust Hill:—“Our Improved Large Yorkshire breeding sows and young pigs are all in good condition. We have a lot of 126 now on hand from one to six months' old—a choice selection of home-bred boars and sows. Our prices are as low as they can be made. Our first object is to supply the trade with the ideal bacon hog, and we are satisfied the Yorkshire pays both the feeder and the packer. Mr. Wm. Davies, pork packer, Toronto, stated to us a few years ago that the Improved Large Yorkshire suited his purpose in every particular in supplying his customers. We, on an average, have bred and fed for three years past 300 hogs each year. We have always on hand a fine lot to choose from, so that breeders who come and see them very seldom go away without securing one or more.”

THORNCLIFFE STOCK FARM I



I have on hand the best young Clydesdale Horses and Mares on this continent. Bred from the well-known sires, Prince of Wales, Darnley, Macgregor, Energy, Lord Montrose, The Ruler, Carruchan Stamp, Knight Errant and other celebrities.
My stock in the above lines were very successful at all the large shows last year. Call and examine our stock before purchasing elsewhere.
Terms reasonable.

SHROPSHIRE.

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



SHORTHORNS!

CHOICE YOUNG HEIFERS and BULLS
by the celebrated Cruickshank bulls
NORTHERN LIGHT
—AND—
VICE CONSUL.



19-1-y-om **ROBERT DAVIES, Proprietor. P. O., Toronto.**

IMPORTED SHORTHORNS.

D. D. WILSON,
Ingleside Farm, SEAFORTH, Ont.
IMPORTER AND BREEDER OF

SCOTCH SHORTHORNS.
Imported stock from the herds of Wm. Duthie and W. S. Marr for sale; also Canadian-bred from imported bulls and out of imported dams. Farm one mile from G. T. R. station.
I intend having a sale of above stock some time in March, of which further notice will be given.
13-L-om

SHORTHORNS.
I have FOR SALE two Shorthorn heifers and two bull calves of fine breeding, fine colors, fine form and carriage, in fine condition, at fine cut prices. Also one or two cows.
D. ALEXANDER, BRIGDEN, Lambton Co., Ont.
5-y-o

We now have FOR SALE Four Superior Shorthorn Bulls of different ages, sired by such noted bulls as imported Baron Lenton and imported Reporter and Cavalier, also some extra good Cows and Heifers.
J. & A. SOMMERVILLE,
3-1-y-om **ELDER'S MILLS, Ont.**

ARTHUR JOHNSTON.



Arthur Johnston has for sale an extra good lot of

SHORTHORN HEIFERS AND YOUNG COWS
At moderate prices, as well as a choice lot of young bulls. He is also breeding **REGISTERED BERKSHIRES**
Of the purest breeding and finest quality **GREENWOOD P. O. AND TELEGRAPH OFFICE.**
Claremont Stn. C. P. R. or Pickering Stn. G. T. R.
Parties met on shortest notice. 4-2-y-om

AMPLE SHADE STOCK FARM.
Extra good Shorthorn Bulls and Heifers for sale. Leicester of both sexes; also Mammoth Bronze Turkeys; very fine young birds.
Write, stating your wants.

E. GAUNT & SONS,
13-1-y-om **St. Helens, Ont.**

LARGE IMP. YORKSHIRE PIGS
—AND—
HOLSTEIN CATTLE.

We breed nothing but the best, and sell cheap and guarantee satisfaction, or ask no pay. Come and see us, or write for prices and be convinced. **FLETCHER BROS.,** Oxford Mills P. O., Ont., Kemptville Station, C. P. R.
5-1-y-om

SHROPSHIRE RAM LAMBS.

We are entirely sold out of yearling Rams, but still have a few Choice Ram Lambs for immediate delivery. Also a fine lot of Ewe Lambs from imported stock.

IN YORKSHIRES—We are booking orders for choice pigs for spring delivery from 30 breeding sows. We have a few Boar Pigs fit for service, and some nice young Breeding Sows. Order early, as from present demands they will not last long.
GUERNSEYS—Two choice Bull Calves left, fit for spring service, sired by “Adventurer,” winner of 29 1st prizes in Britain previous to importation. Correspondence solicited and promptly attended to.
9-y-om
T. D. McCALLUM, Manager Isaleigh Grange Farm, Danville, Que.

The Most Celebrated Stud of Clydesdales and Hackneys in Canada is owned by

GRAHAM BROS., CLAREMONT, ONT.
The choicest animals that money and experience can buy, and well qualified to maintain the reputation of our stud for importing. More first prize and sweepstake winners at the leading shows in Canada and the United States than all other establishments of its kind in the Dominion. The Clydesdales have immense size, large flat bone, with style, quality and choice breeding combined. The Hackneys have fine colors, style, quality, high knee action and choicest breeding. The home of the Champion Clydesdale Stallion, Queen's Own, and the Champion Hackney Stallion, Finely Parties wishing the best animals at reasonable prices are cordially invited to examine our stock. Catalogues free.

GRAHAM BROS., CLAREMONT, ONT.
25 miles east of Toronto, on C. P. R. 7-b-om

SPECIAL OFFERINGS AT REDUCED RATES

—TO THOSE WHO WISH TO—
DOUBLE THE BUTTER YIELD OF THEIR HERDS.
6 Jersey bull calves, 2 to 4 months old, bred entirely for **GREAT BUTTER YIELD.**
Sired by bulls whose dams make **17 1-2 to 26 3-4 lbs. Butter a Week.**
As my fall cows gave an unusual number of bull calves, I have decided to place them within reach of all who want an extra bull for next summer, viz.: \$60 to \$90 each, registered, and express prepaid by me to their destination. **MRS. E. M. JONES, Box 324, Brockville, Ont., Can.** Mrs. Jones' great book, *Dairying for Profit*, 30c. by mail. Address, **ROBT. Y. BROWN, Agent, Box 324, Brockville, Ontario, Canada.** 8-y-om

\$312.00 and SILVER MEDAL
won by **BROOK BANK HOLSTEINS,** at TORONTO, 1894. Including 1st & 2nd in Milk Test, and prizes on females in every section, from Cow to Calf. We keep the best to be procured. All ages. For sale—right sort and right prices. Correspondence cheerfully answered. Also a few choice young Poland-China Boars for sale. **A. & G. RICE, Currier's P. O., Oxford Co., Ont.** 19-1-y-om

HOLSTEIN-FRIESIANS.
MAPLE GROVE STOCK FARM
H. BOLLERT, CASSEL, ONT.
Several very choice young cows and heifers due to calve in Nov. and Dec., are now for sale at very reasonable prices. If you want the best, come and see them, or write for full description and prices. Maple Grove Holsteins lead in production. Every animal in the herd priced. Visitors always welcome. 13-1-y-om

HOLSTEINS AND YORKSHIRES.
None but the best are kept at **BROCKHOLME FARM, ANCASTER, ONT.**
R. S. STEVENSON, Proprietor.
Write me for prices if you want first-class stock at moderate figures. Holsteins in the advanced registry. Yorkshires all recorded. 13-1-y-om

IF YOU WANT a well-bred Shorthorn Bull for use on grade cows, or a heifer to start a herd with, or some Improved Yorkshire pigs from imported sow Lady Lindsay (422), write **C. G. DAVIS, Woodlands Terrace Farm, Freeman P. O.** 13-y-om

HOLSTEIN-FRIESIAN CATTLE AND TAMWORTH PIGS.
A Two-Year-old Prize-Winner
For Sale.
Netherland Angrie Eden, second prize at Toronto in 1894. Large, handsome, good quality, rare breed. ing. Sire, our invincible Neth. Statesman's Cornelius, dam Princess Margaret, butter record, 30 lbs., 1-1-2 oz. in a week as a 4-year-old. Other stock of all ages for sale. A choice lot of Tamworths on hand.
A. C. HALLMAN & CO., New Dundee, Waterloo Co., Ont. Shipping Stations: Petersburg, G. T. R., and Arr. G. P. R. 21-1-y-om

MAPLE HILL HOLSTEIN-FRIESIANS.
The fine yearling bull Netherland Consul, a son of the silver medal bull Netherland Statesman's Cornelius, and the great cow Pollanthus imp., that gave 13160 lbs. milk in a year at two years old, now for sale. He should go to head a herd.—**G. W. OLEMONS, ST. GEORGE, ONT.** 12-y-om

SUNNYSIDE HOLSTEIN-FRIESIANS
Choice animals, either sex, all ages, for sale at any time. Correspondence solicited. Address **McDUFFEE & BUTTERS, Stanstead, P. Q.** 16-y-om

ADVERTISE IN THE ADVOCATE

NOTICE.

AN EXPLANATION.
To our many friends who have written us personally to the Grange, 126 King street, and have received no answer, we would explain that we notified the President of the Grange Co. on Oct. 1st that we wished to withdraw from that company, and on Oct. 10th they settled with me, on the condition that I would not enter into business in opposition to them, nor advertise against them, and that I would hand all mail matter sent to me in connection with the Grange over to them until Jan. 1st. Now, January 1st has come, and we will be delighted to renew our acquaintance with you as manager of the People's Wholesale Supply Co. on the same terms as quoted in our last catalogue from the Grange. But we will be able to give you better prices on almost every line. We have no old stock, but have a full line of new goods, which were never offered cheaper than they will be pleased to ship them to you at. Kindly send us a trial order for anything you may need. Wishing you a happy New Year, we are, yours respectfully, **R. Y. MANNING, Manager, 35 Colborne street, Toronto.**

C. C. & G. F. CLEVELAND
(J. L. Goodhue & Co., Mfgs. Leather Belting)
BREEDERS AND IMPORTERS OF
Durham Cattle, Standard Bred Horses, Chester White Swine, Young Stock for Sale.
Address—**C. C. & G. F. CLEVELAND,** Greenlands Stock Farm, Danville, Que.
17-1-y-om

PURE ST. LAMBERT BULLS AT YOUR OWN PRICE

Jolie's Pogs of St. A. 22830, six years, sire Romeo of St. Lambert, dam Jolie of St. L. 3rd. Jolie Boy of St. A. 23713, six years, sire Romeo of St. Lambert, dam Jolie of St. L. 4th. Jolie's Romeo of St. A. 25732, five years, full brother to the above. Gipsy Boy of St. A. 25705, four years, sire Jolie's Hugo of St. A., dam Gipsy Hugo of St. A. Defiance of St. A. 29733, four years, sire Romeo of St. Lambert, dam Jolie of St. Annes. Lord Derby of St. A. 33291, three years, sire Lady Fawn of St. A. Son, dam Juliet of St. Annes. The best offer (received before the 31st December) over \$75, gets the choice of the first three, and best offer over \$50 gets the choice of the last three. They are all solid colors, and out of cows whose public records as dairy cows have never been beaten. We sold six bulls this year, same age as above (not so well bred), for \$625. Apply to
W. A. REBURN,
20-y-om **St. Anne de Bellevue.**

JERSEYS FOR SALE

At the head of the herd is the grand young St. Lambert bull, Nabob, son of Nell's John Bull. Stock of both sexes and different ages, and of choice breeding, now on hand.
JONATHAN CARPENTER,
13-1-y-om **WINONA, ONT.**

A. J. C. C.—Twenty Jersey Cows, Heifers and Calves of both sexes at reasonable prices. Baron Hugo of St. Annes heads the herd; first prize winner at Ottawa and Kingston, 1893, and second prize winner at Toronto. Write your wants—bargains here. **H. E. WILLIAMS, Sunnyside Farm, Knowlton, P. Q.** 17-1-y-om

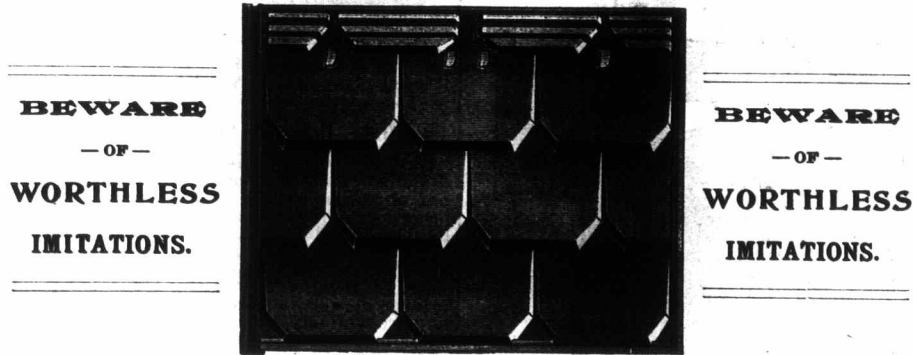
JERSEYS, STANDARD BRED HORSES.

Choicely bred Stoke-Pogus and St. Lambert Jerseys.
Standard bred and Road Horses for sale.
DR. E. P. BALL,
17-1-y-om **Rock Island, Que.**
FIRST PRIZE JERSEY HERD.
Two young bulls from first prize cows and first prize bull at Toronto. Several heifers to calve shortly, suitable for family cows.
3-1-y-om **J. H. SMITH, Highfield, Ont.**

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That's what the **PLANET JR. Labor Saving Farm Tools** represent for the farmer—an end to plodding—a beginning of better results. The **PLANET JR. Book for 1895** gives you an introduction to 20 of these marvelous machines. Explains their many uses and advantages in detail; shows you how to turn the tide of fortune your way. Many a farmer dates the beginning of his success by the reading of this book. We send it **Free**. Will you make a beginning? **S. L. ALLEN & CO., 1107 Market St., Philada.**

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BEWARE
—OF—
WORTHLESS
IMITATIONS.

BEWARE
—OF—
WORTHLESS
IMITATIONS.

GUARANTEED SUPERIOR AND TO LAST LONGER THAN ANY OTHERS.

Our Guarantee is of Some Value.

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CUT OUT AND SEND US THIS ADVERTISEMENT FOR SPECIAL PRICE.

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Established 1887. Guaranteed. Self-Regulating. Absolutely.

THE IMPROVED

Endorsed by all as the most reasonable in price, finest finished, and perfect Artificial Hatching and Rearing Outfit ever made or sold. Thousands in use. Guaranteed as represented or money refunded. Circulars free; Catalogue 4c. Address **GEO. ERTEL & CO., Patentees and Mfrs., LONDON, ONT., and Quincy, Ill.**

Berkshires

Of the best strains, not connected from a number of grand sows and three different boars. Fifty-eight prizes won last season. All ages for sale, including sows in farrow. **WM. McALLISTER, Varna, Ont. 3-1-y-om**

D. A. GRAHAM
PARKHILL, ONT.
BREEDER OF
Pure-Bred Berkshire Pigs

Breeding stock of all ages supplied, not akin. Also a few choice B. P. Rocks, S. L. Wyandottes and Bronze Turkeys. **17-1-y-om**
Parkhill Station, G. T. R.

THE HOME OF THE BERKSHIRES.
J. G. SNELL & BRO.,
Edmonton, Ontario.

We are now breeding a number of fine young sows, the get of Enterprise, to the imported boars Star One, British Cheer and King Lee 4th. Have a few good young boars fit for service and a fine lot of young pigs farrowed in September and October. Our Berkshires won eight firsts out of eleven offered at the late Toronto Exhibition. Write for description and prices **2-y-om**

THE BRONZE MEDAL HERD OF IMPROVED CHESTER WHITE SWINE.
Headed by Cleveland Imp. 320, and Washington, a three-premium winner at the Columbian Exposition, Chicago, 1893. Dorset Horn sheep imported and home-bred. **R. H. HARDING, Thorndale, Ont. 20-y-om**

Pine View Herd!
CHESTER WHITES and BERKSHIRES.
Young Boars fit for service. Young Sows in pig to an Imported Boar. And in fact I can supply any aged pig wanted of the two breeds mentioned above, at a price in touch with the times. Orders are solicited for weanlings; but I am anxious to clear out the older ones in order to make room for sows farrowing next month. For prices and other particulars address—**JAMES H. SHAW, Simcoe, Ont. 21-1-f-om**

E. D. GEORGE
PUTNAM, ONT.
Importer and Breeder of
Ohio Improved Chester White Swine

The largest and oldest established registered herd in Canada. I make this breed a specialty, and furnish a good pig at a fair price. Write for prices. **15-1-y-om**

C. J. GILROY & SON
Glen Buell, Ont.
BREEDERS OF
HOLSTEIN-FRIESIAN CATTLE

—ALSO—
Large English Berkshires & Imp. Yorkshire Swine
Bred from imported stock. Personal inspection solicited. **7-y-0**

SUDDEN CHILLS & COLDS.
AT THE COMMENCEMENT OF AN ATTACK TAKE A TEASPOONFUL OF **PERRY DAVIS' PAIN-KILLER**

AND THE CURE IS MORE SUDDEN THAN THE CHILL

RUN DOWN WITH DYSPEPSIA STOMACH AND LIVER AND HEART AFFECTED.
Almost in Despair But Finally CURED By Taking **AYER'S PILLS**

"For fifteen years, I was a great sufferer from indigestion in its worst forms. I tested the skill of many doctors, but grew worse and worse, until I became so weak I could not walk fifty yards without having to sit down and rest. My stomach, liver, and heart became affected, and I thought I would surely die. I tried Ayer's Pills and they helped me right away. I continued their use and am now entirely well. I don't know of anything that will so quickly relieve and cure the terrible suffering of dyspepsia as Ayer's Pills."—**JOHN C. PRITCHARD, Brodie, Warren Co., N. C.**

AYER'S PILLS
Received Highest Awards AT THE WORLD'S FAIR

IN MAKING A PRESENT one desires a good and suitable article at a low price—something that will look well, last well, be useful and surely please. We meet these conditions. We sell Silver-Plated Hollowware, such as Tea Sets, Ice or Water Pitchers, Casters, Cake Baskets, Napkin Rings, etc. Silver-Plated Dessert and Table Knives; Tea, Dessert, and Table Spoons, Dessert and Table Forks, Sugar Shells and Butter Knives, in both Triple Plate and Unplated White Metal. Waltham, Elgin and other American and Swiss Watches, and a desirable line of Mantel, Cabinet, and other Clocks, in Walnut, Oak, and Nickel. We ship with privilege of examination before paying for them. Send your address and receive free our wholesale Catalogue, with cuts, descriptions and prices.

THE SUPPLY COMPANY,
NIAGARA FALLS, ONTARIO

JAPANESE CATARRH CURE
For Cold in the Head, Drooping in the Throat, Hay Fever, Aching above the Eyes, Earache, and discharges from the Ears and Nose, affecting Children and Adults, also for all Cuts, Wounds or Old Sores. It is a perfect specific. Price by mail, post paid, 50 cents. Samples free.

T. R. MORROW, CHEMIST,
426 Cordova St., & Mt. Pleasant,
VANCOUVER, B. C. 21-y-om

W. H. ODELL, BELMONT, ONT.
—BREEDER OF—
REGISTERED TAMWORTH SWINE.

12 first-class young Tamworth Boars for sale, also pigs booked from prize-winning stock for delivery 1st March, at \$10 each. **15-1-y-om**

THE AVON HERD OF REGISTERED TAMWORTH, CHESTER WHITE AND IMPORTED POLAND CHINA SWINE.

Our herds are selected from the best strains from England and the U. S. We have some choice young stock of Tamworth and Poland China from 3 weeks to 4 months old. Pairs not akin. Prices moderate. Correspondence solicited. Orders booked for spring pigs. **Chester White. HERRON & DAFOE, Avon P. O. 22-f-om**

SEND for Catalogue of CHAMPION EVAPORATOR. **THE G. H. GRIMM CO., Montreal. 7-0**

Annual Meeting of the Dominion Sheep Breeders' Association at Guelph.

The annual meeting of the Dominion Sheep Breeders' Association convened in the City Hall, Guelph, on Tuesday afternoon, December 11th. Mr. John Jackson, the President, congratulated the members on the success of their organization, thanked them for honoring him with the Presidency, referred to the splendid record made by Canadian sheep at the World's Fair, extended thanks to the Minister of Agriculture, Hon. John Dryden, for his liberality, and concluded his address with an acknowledgement of the labors of the Secretary.

ELECTION OF OFFICERS.
The election of officers for 1895 resulted as follows:—President—John Jackson, Abington; Vice-President—James Tolton, Walkerton; Secretary-Treasurer—F. W. Hodson, Guelph. Directors: Cotswolds—J. C. Snell, Edmonton; Leicesters—John Kelly, Shakespeare; Southdowns—T. C. Douglas, Galt; Shropshires—R. Gibson, Delaware; Oxfords—Henry Arkell, Arkell; Hampshires—Wm. H. Beattie, Wilton Grove; Lincolns—John Gibson, Leamington; Horned-Dorsets—John A. McGillivray, Uxbridge; Merinos—Robt. Shaw, Glanford Station. General Director—John I. Hobson, Mosborne. Auditors—Andrew Whitlaw, Guelph; J. B. Spencer, London.

Delegates to Fair Boards—Toronto Industrial—J. C. Snell, Edmonton; and James Russell, Richmond Hill; Ottawa—J. Yull, Carleton Place; Montreal—James Cochran, Compton, P. Q.; Kingston—R. G. Martin, Marysville; London—Richard Gibson, Delaware, and Alex. Smith, Maple Lodge. The following were recommended to Fair boards as competent judges in the respective classes: Shropshires—Mortimer Levering, La Fayette, Ind.; Geo. Allen, Allerton, Ill.; A. H. Todd, Wakeman, Ohio; S. Howard, Davidson, Millbrook, N. Y.; A. O. Fox, Oregon, Wis.; Richard Gibson, Delaware, Ont.; G. P. Everett, Mount Vernon, Ont.; J. Conworth, Paris, Ont.; W. H. Beattie, Wilton Grove, Ont.; James Hanmer, Mount Vernon, Ont.; John Jackson, Abington, Ont.; W. S. Hawkshaw, Glanworth, Ont.; Jas. McFarlane, Clinton, Ont.; Jas. Cooper, Kippen, Ont.; T. M. Whiteside, Innerkip, Ont.; J. Campbell, Woodville, Ont.; D. G. Hamner, Mount Vernon, Ont.

Toronto Industrial—Richard Gibson, Delaware, and Mortimer Levering, La Fayette, Ind.; reserve, J. Jackson. London (Western)—A. O. Fox, Oregon, Wis., and John Conworth, Paris; reserve, Jas. McFarlane, Clinton. Ontario—J. P. Everett, Mount Vernon, and D. G. Hamner, Mount Vernon; reserve, A. Brown, Bethel. Leicesters—J. C. Snell, Edmonton; Jas. K. Campbell, Palmerston; Andrew Thompson, Fergus; John Burns, King; James Petty, Hensall; Henry Allan, Newcastle; Andrew Martin, Paris; Wm. Cowan, Edmondville; Martin, Gardhouse, Highfield; Wm. Cowan, Galt; Alexander Smith, Maple Lodge; C. E. Wood, Freeman; James Snell, Clinton; John Mason, Princeton; Joseph Snell, Edmonton; James Grant, St. Helens. Southdowns—A. Simenton, Blackheath, Ont.; S. Lemon, Kettleby; T. Wilkinson, Hamilton; J. Davidson, Munroe, Mich.; John Jackson, Abington; T. C. Douglas, Galt; Geo. Baker, Simcoe; R. L. Burgess, Burgessville. Lincolns—J. C. Snell, Edmonton; Joseph Snell, Edmonton; Wm. Cowan, Galt; Wm. Stevens, Lambeth; Ernest Perkinson, Erasmus; Thos. C. Robson, Ilderton; John Geary, London.

Cotswolds—John Thompson, Uxbridge, Ont.; Jas. Russell, Richmond Hill; W. Laidlaw, Wilton Grove; Geo. Weeks, Glanworth; T. Waters, Rockwood; A. Johnston, Greenwood; T. Teasdale, Concord; Peter McGregor, Mimosa; Wm. Rae, Arkell; S. Coxworth, Hamilton; J. C. Snell, Edmonton; Wm. Thompson, Uxbridge, and J. G. Snell, Edmonton. Merinos—J. B. Moore, Galt; A. Tirrell, Wooler; R. Bayley, Union; Geo. Everett, Mount Vernon. Oxfords—Peter Arkell, Teeswater; Jas. Tolton, Walkerton; Henry Arkell, Teeswater; Wm. Dickson, Mildmay; Henry Arkell, Arkell P. O.; J. E. Cousens, Harriston; Wm. White Oak; A. Tolton, Walkerton; W. B. Cockburn, Aberfoyle; Jno. Harcourt, St. Annes; Herbert Wright, Guelph; Smith Evans, Guelph; W. A. Shafur, Middletown, Ohio; Geo. McKerrrow, Sussex, Wis.; Uriah Puyette, Greensburgh, Ind.; Thos. Wilkinson, Hamilton; A. Baldwin, Large, N. C.; Jno. Kemp, Hazeldean; Jas. Cochran, Compton, P. Q.; S. Lemon, Kettleby; Jas. Wright, Guelph; Robt. Hinds, Dutton; Arch. McKenzie, Corwhin. Horned-Dorsets—W. S. Hawkshaw, Glanworth; John Jackson, Abington; W. H. Beattie, Wilton Grove; Richard Gibson, Delaware; Jas. Main, Milton; J. C. Snell, Edmonton.

Mr. Richard Gibson then delivered a lengthy and able criticism on the sheep papers in the last report, which provoked a long discussion, points from which we will reproduce in a future issue.

EVENING MEETING.
A large joint meeting of the Sheep and Swine Breeders was held at night, Mr. John I. Hobson in the chair. The report of the Secretary, F. W. Hodson, Guelph, showed that the year had been a successful one. After referring to the appointment by which he was enabled to devote his entire time to the Farmers' Institutes and the live stock interests of Ontario, the Secretary said the increased interest taken in the work of the Association was shown by the large demand for the annual report. During the year 3,496 pigs were recorded, comprising 1,151 Berkshires, 1,139 Yorkshires, 382 Tamworths, 343 Poland-Chinas, 318 Chester Whites, 44 Suffolks, 71 Duroc-Jerseys, and 18 medium Yorkshires.

The proposed standard of excellence was not yet ready, and it would be necessary to hold a general meeting not later than June 20, 1895, to finally consider and pass upon the standards. The directors, he reported, had taken an active interest in the work of the Association. The representatives of the Association had done good work in the way of improving the judging at fall fairs. He also suggested the arranging of county and other smaller shows

STOCK GOSSIP.

In writing to advertisers please mention the Farmer's Advocate. SHEEP BREEDERS' MEETING—Continued. In divisions, so that the judging might be done by experts...

FINANCIAL REPORT TO DECEMBER 31st. RECEIPTS (SWINE). Balance in Treasury, April 3, 1894. \$ 266 00 Membership fees, 1894. 590 00 Legislative grant. 700 00

RECEIPTS TO DECEMBER 31st, 1894 (SHEEP). Membership fees. \$ 80 00 Grant. 850 00

The report was adopted and referred to the Executive to report upon it to the next joint meeting.

COMMITTEE REPORTS. The committee appointed to confer with delegations from other associations, to devise means whereby influence might be brought to bear on the American Government...

The same committee had been instructed to endeavor to remedy certain grievances which breeders and exhibitors have to contend with in shipping stock...

At the suggestion of Mr. Gibson, all persons having grievances are requested to send them in writing to the committee.

Mr. Tolton submitted a report from the committee appointed to draft a model set of rules and prize list...

REPORTS FROM FAIR BOARD REPRESENTATIVES were also received and adopted.

SPECIAL PRIZE FOR WOOL EXHIBIT. Ald. John Hallam, of Toronto, amid applause, announced that he would give a prize of \$75 for an exhibit of fine and coarse wools at the next Toronto Industrial Exhibition.

Mr. Mortimer Lavinger read an able paper entitled "Practice does not make Perfect," followed by one by Dr. Mills, of the O. A. C., on Live Stock Associations.

CLOSING SESSION. On Thursday morning the Sheep Breeders held their closing session, Secretary Hodson in the chair.

Mr. C. A. Zavitz, B.S.A., presented an excellent paper on "Fattening Lambs."

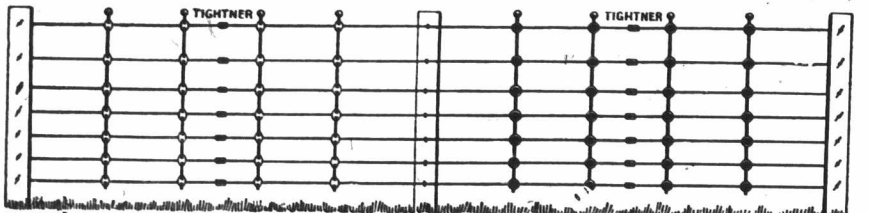
Mr. John Dicken, of Milton, gave a paper on "The Dog Nuisance," suggesting that municipalities be empowered to impose a tax of \$5 and \$10 respectively on dogs and bitches and to restrict the roaming at large of dogs between April 1st and Dec. 1st...

Mr. Andrew Elliot, of Galt, as an example of the number of dogs abroad, cited one district, about six by twelve miles in extent, in which there were about one thousand and ninety dogs, nine-tenth of which were absolutely useless.

On motion, the Secretary was directed to have a criticism on the dog question prepared for next annual meeting, and also to secure some good outside talent.

OUR BOOK TABLE.

A little work, entitled "The Formation of Pure-Bred Pigeons and Their Subsequent Management," by Alfred Mansell, Shrewsbury, England, has lately come to hand. We may say that the author is a successful breeder and exhibitor of Shropshires. In this little volume are given many valuable points, learned from experience...



No better wire fence built than the Casey Diamond Grip. Just the thing for farmers—neat, strong and durable. Will last a lifetime, barring accidents.

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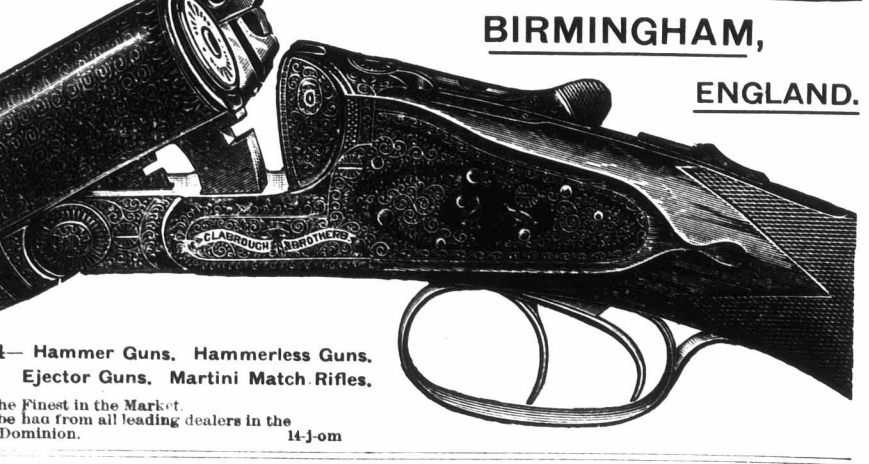
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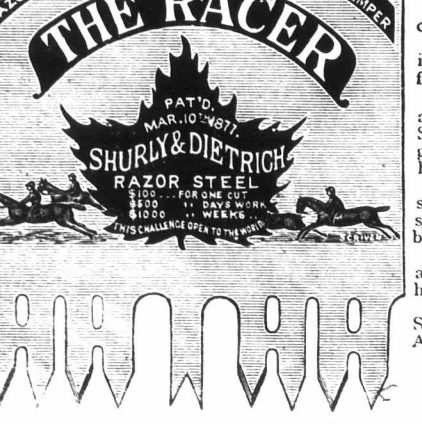
W. W. GREENER, ST. MARY'S SQUARE, BIRMINGHAM, and 68 HAYMARKET, LONDON. 15-1-om

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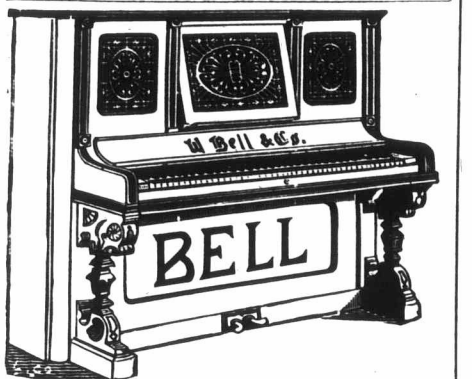


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- \$ 5—Small Gray Goat Robes, \$5 each. \$ 7—Large Gray Coat Robes, \$7 each. \$ 8—Extra Select Large Gray Goat Robes, \$8 each. \$ 8—Jet Black Goat Robes, small, \$8 each. \$10—Jet Black Goat Robes, large, \$10 each. \$10—Large Australian Bear Fur Robes, \$10 each.

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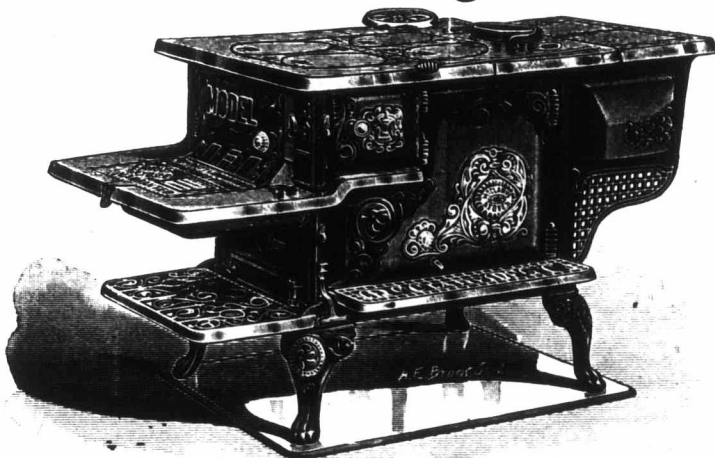
Our Popular Ontario Two-Kneel Sleighs, As it may mean delay and disappointment. Order early and have your sleigh on hand when sleighing comes. THE IMMENSE SALE OF and EVER INCREASING DEMAND for these Sleighs is conclusive EVIDENCE that they are THE BEST SLEIGHS in the market.

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Use:- Queenston:-Cement

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Write for Prices and Particulars. When parties use our goods, when necessary we will send a skilled man, at our own cost, to give instructions how to build. FARMERS can thus build their walls and save half the cost.

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STOCK GOSSIP.

In writing to advertisers, please mention the Farmer's Advocate.

Mr. David Birrel, Greenwood, advertises in this issue some valuable young Shorthorn bulls. Mr. Birrel has a splendid herd, established long ago, and has been constantly improved. Breeders needing stock animals should remember that these cattle are among the best, and their owner an honorable man.

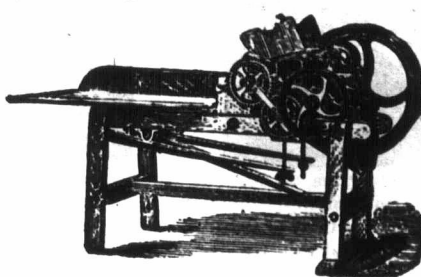
Whiteside Bros., Innerkip:—"The number of inquiries which we are daily receiving is abundant evidence of the increasing popularity of the Ayrshire with those who are desirous of improving their dairy herds. The young bulls which we are now offering are exceptionally well bred, and will do good service for those who buy them."

The opportunity of securing some first-class Scotch Shorthorn blood should not go unimproved at the present time. Mr. J. G. Taylor, Rockwood, whose extensive sale is to be held Wednesday, January 16th, furnishes an opportunity to secure the formation of what ought to be in a very few years valuable Shorthorn herds. The ten bulls and forty females will no doubt bring much less than their real worth to purchasers. Mr. Taylor will be pleased to furnish catalogues on application.

Jas. S. Smith, Maple Lodge, writes:—"Our stock are doing very nicely. The young calves now coming, sired by our new stock bull British Flag, a son of Barmpton Hero, please us very much. They promise to possess that style so rarely found, except in the best Bates cattle, but which their sire has in a remarkable degree, coupled with the sturdiness of body of the Scotch-bred Shorthorn. The cattle we intend offering at public sale about the last of February (of which we will have notice by advertisement in next No.) will be in nice shape. They will compare favorably with the best lot we have offered before, and a large percentage are from our best milkers."

J. M. Hurley & Son, Belleville, Ont., writes:—"Our pigs are doing exceptionally well, and we have some very fine young sows due to farrow in spring, also a few select boars fit for service. All our sows will have pigs early in March and February. We used four stock boars this fall, so are able to supply pigs not akin. The boars are all prize-winners of the right type. One of the boars was Maxim (577), counted by S. Butterfield, Sandwich, to be the best boar in Canada. Sales have been numerous lately, and orders for spring pigs are coming in. Recent shipments were to R. S. Shaw, Woodburn; Chas. South Newbury, Vermont, and J. N. Greenshields, Danville, Quebec. The extent of country our pigs travel over speaks for the excellence of our stock."

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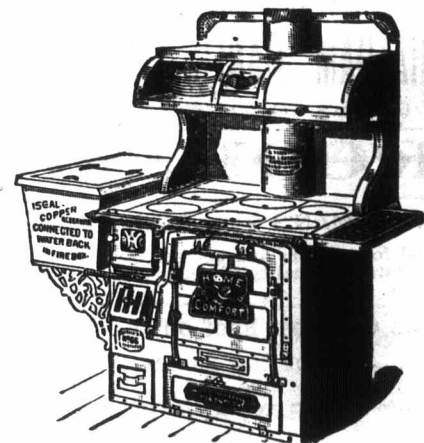
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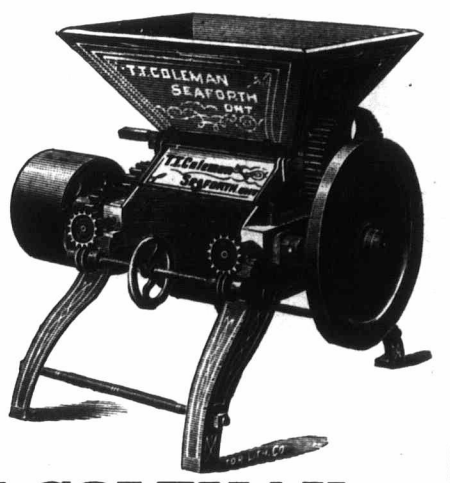


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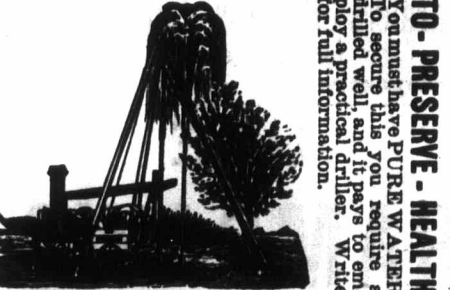


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With Unbreakable Axles and Unbreakable Arms.

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Over the heads of numerous old and extensive builders in the United States and Canada. The axles are unbreakable, because

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MALLEABLE IRON,

Warranted as strong, more durable and lighter running than Steel Skeins. These Giant Arms completely revolutionize the building of wagons. Our 3-inch Malleable Giant Arm Wagon is

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Though less in price, than any ordinary 3 1/2 to 3 3/4 inch cast-iron arm wagon, and our 2 1/2 inch Malleable Giant Arm Wagon is warranted stronger than any ordinary 3-inch cast iron arm wagon, and less in price.

THE DEMAND for these wagons is so great that though we are turning out 12 per day, we are taxed to the utmost to supply it. Send in your orders early.

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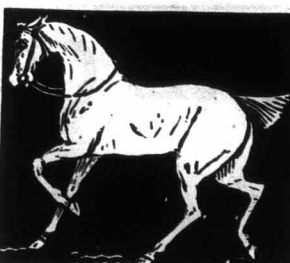
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IS THE PLACE TO ATTEND, if you want either a Business Education or a course in Shorthand.

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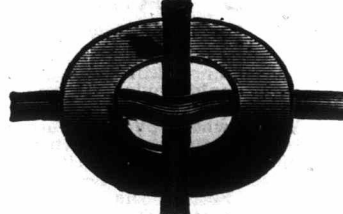
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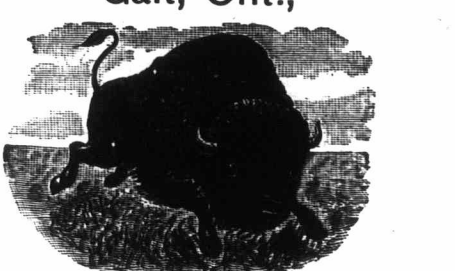
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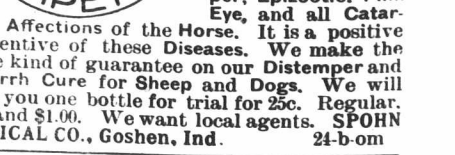
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