

FARMER'S ADVOCATE

76

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MAGAZINE

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

Vol. XXXV. LONDON, ONTARIO. JANUARY 1, 1900. WINNIPEG, MANITOBA. No. 493

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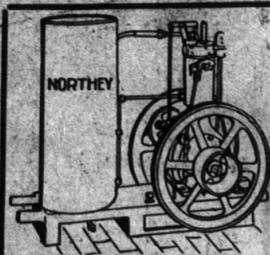
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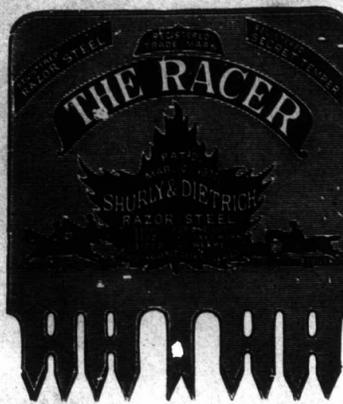
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VOL. XXXV.

LONDON, ONT., AND WINNIPEG, MAN., JANUARY 1, 1900.

No. 493

EDITORIAL.

The Permanent Location of the Ontario Winter Show.

The question of securing a suitable building and other accommodations for the holding of the Provincial Fat Stock and Dairy Show is one which should be resolutely faced by all parties concerned, and that without delay. The great importance and usefulness to the farmers and stock-raisers of the country of this exhibition is conceded on all hands, and experience has proven that it cannot be developed and carried out in a manner and on a scale commensurate with its importance unless a proper building for its accommodation is provided. Since the adoption of the dressed-meat and other educational features, greatly popularizing the show with the public, visitors being now attracted from long distances, the need for better facilities becomes increasingly imperative—not only that such tests may be so conducted as to be of permanent value to the country at large, but in order that ample provision be made for the comfort both of exhibitors and visitors. In order to secure this, we believe there is a general concurrence of opinion that the selection of a permanent location is involved.

The itinerant system was adopted a few years ago for the reason that, since public funds were granted for the objects of the show, the people in different sections of the Province had equal rights to its benefits being brought within easy reach in order that they might profit by its educational, but more particularly to share in its local advantages, and this plea was so persistently urged, in the Legislature and out of it, that it was thought best to try the peripatetic plan; but, as we have said, experience has taught that more suitable accommodations for the comfort of visitors and the advantageous display of the stock, etc., must be provided in order to secure the best results. The provision made in the last two years by the Winter Show Association, whereby the excess of freight on exhibits coming from a greater distance than one hundred miles is paid by the Association, has done much towards removing the objection to centralization of the show, and the favorable passenger and freight rates secured from the Railway Companies have also greatly aided in doing away with that objection.

The experience of the old Provincial Exhibition Association in their effort to prolong the itinerant system ought to go far to satisfy all parties that the system is out of date, being cumbersome, costly and unsatisfactory, and the fact that the only exhibitions that are now successful are those which are permanently located and provided with suitable buildings should serve to settle the question without demur. The successful fat stock shows of Great Britain have been fixtures for a century or more, and plans have been adopted on a gigantic scale for a permanent fat stock show at Chicago, to commence this year. If Canada is to hold her place of prominence in the production of superior stock this subject must be dealt with in no narrow spirit by our people, but the general good must be considered. A united and earnest appeal to the Government by the various stock breeders' associations for a special grant for this purpose will, we are confident, meet with a generous response, and the question of the selection of the place for the future home of the show will largely depend upon the liberality of the cities seeking the same in offering inducements for its location. One thing we would impress upon the minds of all concerned, and that is, that action cannot commence too soon and that earnestness and enthusiasm should characterize every movement in regard to this very important matter. Canada cannot afford to go back on its fat stock show record, and a vigorous forward movement is imperative.

The Winter Show.

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

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

The dressed carcass competition, although limited to sheep and swine, was one of the most interesting features of the show, from an educational standpoint, and was studied with keen interest by breeders and feeders and by farmers generally, showing, as it did, the extent of shrinkage in killing, the deficiency in quality and condition of flesh where animals had been killed too early, being insufficiently fed and fitted for market, and in other

cases where they had been carried past the point of best condition, being made too fat, and their value as food minimized on that account. The comparison of these extremes clearly shows that there is a golden mean where fat and lean are properly proportioned and a tender, juicy and well-flavored product is secured, which brings, or should bring, the best price.

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

While the exceeding usefulness of the winter show under the direction of practical men is fully conceded on all hands, it must be apparent to all who have attended, that in order to carry out its objects successfully and satisfactorily the one great need is a suitable building in which to hold it, where visitors can be comfortable, where the animals can be seen and shown to advantage, and where the dressed carcass and poultry competition, which is bound to increase, can be properly accommodated. This is a fact that cannot be faced too soon if Canada is to hold its place of prominence in this line of work on this continent, for the gigantic preparations now being made for the prosecution of similar work in the United States will, unless we bestir ourselves, so overshadow our shows as to be discouraging to our people. We may not hope to cope with our neighbors in vastness of display, but, with *quality* as our motto, we may face the world, and if we are to do so successfully, liberal things must be devised for the encouragement of our live-stock industry, which is, and must continue to be, the mainstay of the Dominion. We can conceive of no other way in which the Governments can more wisely apply a reasonable amount of public funds than in promoting such an enterprise, and if its best success involves fixing the show at some point, local jealousies should not be allowed to hinder a work which is of such vital interest to our common country.

Index of Farmer's Advocate Articles for 1899.

In accordance with our usual custom, we have prepared a complete index of the articles and engravings published in these columns during the past year, and issue it in connection with the present number. So many of our readers now preserve their papers by binding or otherwise, for future reference, that a good index becomes of very great value, and is really indispensable. All departments of farm work being regularly dealt with by experts, every number becomes a veritable mine of wealth in the way of practical information. In our "Questions and Answers Department" many hundreds of perplexing practical problems are dealt with from time to time, and very frequently the reader will be confronted with the same difficulty upon which some other reader has received help, and by turning up the index the time and trouble of writing us on the subject will be saved. We have heretofore always published the index in connection with the Dec. 15th (Christmas) number, but the amount of space required for articles and engravings in our last issue rendered its publication until the present time practically impossible. We need hardly, therefore, urge upon our readers the desirability of carefully preserving this index.

THE FARMER'S ADVOCATE
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THE LEADING AGRICULTURAL JOURNAL IN
THE DOMINION.

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

Could Not Do Without It.

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

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

Comment on the Christmas Farmer's Advocate.

A STERLING PRODUCTION.

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

MASTERLY AND CHEERING.

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



HEREFORD STEER.

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

best, the ladies' touching pen pictures of home life so daintily sketched, is a feast deserving of the heartiest appreciation."

TRIBUTE FROM AN ENTOMOLOGIST.

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

A GREAT CREDIT.

The Wilkinson Plow Co. write:—"Your Christmas number reflects great credit on you, and we trust will be a lasting benefit in bringing in new business. Wishing you a prosperous New Year."

GRAND!

G. A. Brodie:—"I am greatly pleased with your Christmas number of ADVOCATE. The illustrations throughout are really grand."

CONGRATULATIONS FROM THE MICHIGAN AGRICULTURAL COLLEGE.

Herbert W. Mumford, Professor of Agriculture:—"Permit me to congratulate you on the Christmas

number of the FARMER'S ADVOCATE. Your subscribers should appreciate such an interesting and valuable number. Wishing you the compliments of the season."

DELIGHTED WITH IT.

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

THE BEST YET.

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

"SIMPLY MAGNIFICENT."

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

EXCELLENT.

J. Cavers, Halton Co., Ont.:—"Issue for the 15th inst. is now to hand. It is especially fine. My congratulations on its excellence."

CONGRATULATIONS.

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

WORTH A YEAR'S SUBSCRIPTION.

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

The Outlook for Live Stock.

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

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

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

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

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

STOCK.

Our Scottish Letter.

THE SMITHFIELD SHOW.

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

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

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

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

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

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

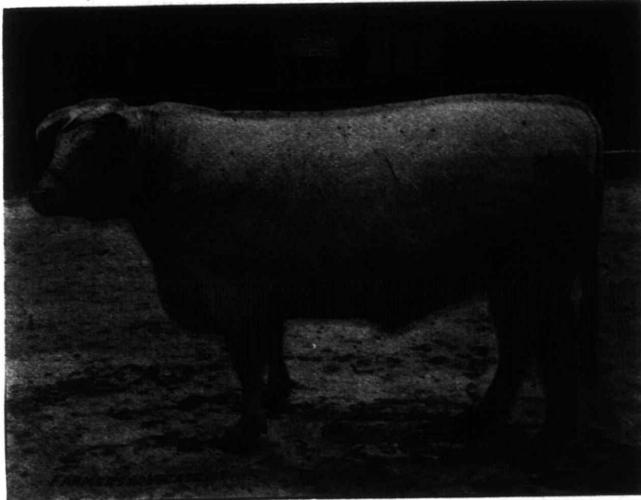
The English pure breeds were fairly well represented, Sussex cattle being a kind of parallel to the Galloway, and the Welsh runts to the Highlanders. These are in favor with London butchers. Red Polled are doing no more than holding their own.

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

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

The sheep department at all the shows this winter has been characterized by unusual success for the Blackface mountain breed. At Edinburgh a pen of three wether hogs, bred and exhibited by Mr. John McDowall, of Girdstingwood, Kirkcudbright, secured the championship of the whole show. They went to London, and again secured the championship over all the long-wool breeds, being, however, beaten in the final by the Suffolks and the Southdowns. The ages of this pen are 19½ months, and their joint weight 675 lbs. In the carcass competition at London a Blackface wether hogg, owned by Mr. Alexander Guild, Greenhead, Penciland, was champion over all breeds and crosses, beating the Southdowns, Suffolks, Cheviots, Hampshires, and all other sorts. This was a beautiful carcass of mutton, and naturally the breeders of Scottish mountain sheep feel uplifted. Everybody in the north knew theirs was the choicest mutton, but it required the carcass competition to demonstrate the fact to the London butchers and the London public. It has been done now, and done well.

Considerable interest has been manifested in the different results from the two great shows of last summer, the Royal at Maidstone and the Highland at Edinburgh. In the former case there has been made a loss of £6,000, and in the latter a profit of £4,000. It was pretty obvious to visitors to both shows that Edinburgh would issue in a profit and Maidstone in a loss, but possibly no one imagined that the figures in either case would be so high. Both were purely agricultural shows, and local circumstances alone contributed to the different results. At Maidstone the Royal was away in a corner of England, sparsely populated, with no large town nearer than London, and an agricultural population all round interested in the one industry of hop-growing. Hence, it was impossible that a show of the dimensions of the Royal could, under such circumstances, pay. Londoners, it has over and over again been proved, do not attend any agricultural show unless it be held right in their midst. Hence the immense concourse of people who throng the Smithfield Club Show in the Royal Agricultural Hall, Islington. On Tuesday last, the second day of the present show, 14,000 passed the turnstiles, and



SHORTHORN STEER, FREE TRADE.

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

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

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

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

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

as many more would go through on Wednesday and Thursday. But the Londoner will not take train and go down to a country town to attend an agricultural show. Hence, the Royal Show at Kilburn in 1879, at Windsor in 1880, and at Maidstone in 1890, have been financially unsuccessful. Big provincial towns like Manchester, Liverpool, Leeds, Leicester, Nottingham, Darlington, and Newcastle always do best for the Royal.

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

"SCOTLAND YET.

The Ontario Provincial Fat Stock and Dairy Show.

CATTLE.

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

SHORTHORNS

were the first on the prize list, and the competition brought out a number of exceedingly meritorious entries, the chief of which was the white two-year-old steer, Free Trade, bred and exhibited by Harry Smith, of Hay, which won first honors in the section for steers over two and under three years. He is a son of the well-known stock bull, Abbottsford, which has for several years been in service in Mr. Smith's herd, and was at the head of the first-prize group of a bull and four of his progeny at the Toronto Industrial Exhibition, 1890; this beautiful steer being one of the offspring of Abbottsford included in that contingent. Free Trade is the most complete model of an export steer and of a butcher's beast that has been seen at a Canadian fat stock show, being smoothly turned and thickly covered with high-class flesh all over, a singularly symmetrical form, and devoid of paunchiness or any of the indications of an excess of offal. His weight was 1,900 pounds at two years and ten months, yet he was so smooth and compact that few would have estimated him at that weight, but he was a splendid example of the ideal type which gives the greatest weight in the smallest superficies, and his sale at 11 cents per pound live weight for Christmas beef to Mr. Slattery, of Ottawa, ends the brief but brilliant career of a steer which netted his late owner \$700, including his price and his prizes in his short life, having won first honors in his class in every contest since he was a calf, and closing his career by capturing the grand championship as best animal of any age or breed at the Provincial Show of 1890.

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

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

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

HEREFORDS AND ABERDEEN-ANGUS

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

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

GALLOWAYS AND DEVONS

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

department were more than usually interesting, nearly all of the dairy breeds being represented by high-class cows, while the general purpose cow showed up exceedingly well in the excellent entries of Shorthorns, in which class A. W. Smith, Maple Lodge, had two cows which measured well up to the type of the milking Shorthorn, both sired by Jocelyn 17428, and of Mr. Smith's Blanche family, and one, Rene 27308, giving 81.5 pounds milk in the two days, winning the first money. F. Martindale, York, had the second-prize cow in Gypsy Maid, by Roan Prince 20524, giving 79.5 pounds milk, and H. J. Davis, Woodstock, the third in Mistletoe 5th, by Baron Lenton 1222. She gave 94.5 pounds milk in the two-days trial. There was but one Jersey cow entered, but she was a good one. She was Primrose Park's Prude 80475, owned by W. J. Craig, London—a seven-year-old cow, six weeks from calving—and she made an extraordinary record for richness. She gave 65.9 pounds milk in 48 hours, testing 6.9 per cent. butter-fat the first day and 7 per cent. the second day, a remarkable showyard record, nearly 2½ per cent. above the highest made by any other cow on the grounds, yet a record one could well believe her capable of exceeding by a good deal under more favorable circumstances, as she is a nervous cow, and being taken away from her companions at home and placed in a strange building and subject to all the disturbances of a public exhibition, and supplied with an inferior class of hay. In conformation she is a model dairy cow, with capacity for working up a large quantity of food, yet beautiful in her head and horn and eye, and in all her make-up. Her owner asserts that she gave 38 pounds milk per day at home the week before the show, which, according to the butter-fat test made at the show, would give her very high rank as a producer.

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

The Holsteins were, as usual, in these trials largely in the majority, there being thirteen entries of these, and the sensation of this department of the show was the performance of the cow Aaltje Posch 4th, owned and exhibited by Rettie Bros., Norwich, Ont., breaking all former showyard records, giving, at nine years old and when five weeks in milk, in the two days of the test at London, 146 pounds 8 ounces of milk, the product of the first two milkings testing 4.5 per cent. of butter-fat, of the next three milkings 4.8 per cent., and of the last milking 4.3 per cent. Adding 20 per cent. to the butter-fat, the rule applied in the World's Fair test at Chicago, this is equivalent to 8.00 pounds of butter in the two days, or over 4½ pounds in one day. Aaltje Posch 4th is a large cow, weighing 1,600 pounds, and having large capacity for food and for milk production. She has excellent dairy form, and but for a somewhat heavy head might well be called a beautiful cow, while her disposition is quiet and placid, which enabled her to do even better work in public than she had ever done at home. She was bred by B. B. Lord & Son, St. Clairville, N. Y., her sire from imp. sire and dam, and her dam imported from Holland. She gave no special promise in her early years of making a phenomenal producer; indeed, at five years old she was purchased at a sale by her present owner at little more than the price of an ordinary dairy cow, and gave no higher than 50 pounds milk daily the first year in his hands, but by generous care and feeding she increased her yield to 64 pounds the second year, and reached 71½ pounds the next year. Last January, in an official test made under the supervision of Prof. Dean, of the Agricultural College, Guelph, she made, starting eight days after calving, 23 pounds 7 ounces of butter in seven days. This, together with her public performance at London, gives her rank as one of the very best cows on record, and when added to the many other great records made by Holstein cows, both at home and in public, gives the breed an enviable pre-eminence as milk and butter producers.

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

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

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



SHROPSHIRE SHEARLING WETHER.

Winner of 1st in his section and sweepstakes of his breed at the Ontario Provincial Fat Stock and Dairy Show, 1890.

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

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

GRADES AND CROSSES

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

THE DAIRY TEST.

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

ually interesting, ng represented by aral purpose cow e excellent entries W. Smith, Maple asured well up to n, both sired by Blanche family, ounds milk in the . F. Martindale, n Gypsy Maid, by ds milk, and H. Mistletoe 5th, by 5 pounds milk in at one Jersey cow she was Primrose Craig, London—rom calving—and for richness. hours, testing 6.9 and 7 per cent. howyard record, nest made by any record one could dding by a good stances, as she is away from her a strange build- ances of a public inferior class of model dairy cow, large quantity of and horn and eye, ner asserts that home the week to the butter-fat e her very high

he test, but they t form, showing n, and carrying The first, second to N. Dymont, Cora being the

usual, in these ity, there being and the sensation show was the altje Posch 4th, ettie Bros., Nor- former show- years old and n the two days ounds 8 ounces rds two milkings -fat, of the next and of the last ng 20 per cent. applied in the Chicago, this is f butter in the ds in one day. cow, weighing ge capacity for ion. She has out for a some- ell be called a osition is quiet ner to do even e had ever done B. B. Lord & sire from imp. imported from special promise a phenomenal ars old she was sient owner at y dairy cow, milk daily the erous care and 64 pounds the next year. ade under the Agricultural g eight days urther in seven e performance the very best he many other both at home eniable pre-ers.

er 36 months, W. Clemons, ink Mercedes, Bros. She is a and carrying . Her record pounds in two ears and five f great merit. 36 months the olstein grade, ner in the sec-

t cows of one ent to Rettie St. George, the two best or grades of Rice, Currie's and to H. K.

THE MILKING TRIAL AT LONDON, 1899.

Name of Cow and Owner's Address.		Total lbs. milk in 24 hours.	Lbs. fat.	Lbs. solids not fat.	No. of points for fat.	No. of points for S. N. F.	Points for milk.	Total points.
Holsteins over 36 months.								
1st.	Aaltje Posch 4th. Rettie Bros., Norwich	116.9	6.79	13.72	135.70	54.88	.6	191.1
2nd.	Woodland Isoco. Rettie Bros.	127.1	4.30	11.20	85.98	44.88	4.2	135.0
3rd.	Queen De Kol 2nd. G. W. Clemons, St. George.	109.4	3.32	9.21	66.40	36.84	10.0	113.2
4th.	Fanny F. Rettie Bros.	134.8	3.42	10.94	68.30	43.74	.6	113.5
5th.	Lady Mary 4th. W. H. Simmons, New Durham.	118.6	3.56	10.62	71.20	40.10	.0	111.2
6th.	Inka Josephine De Kol. G. W. Clemons.	87.7	2.60	7.52	52.20	30.10	7.5	90.5
7th.	Empress Josephine De Kol. G. W. Clemons	74.6	2.43	6.73	49.56	26.91	6.8	83.3
Holsteins under 36 months.								
1st.	Mercena 2nd. Rettie Bros., Norwich	99.6	3.53	8.77	70.54	35.09	.8	106.4
2nd.	Jemima M. M. Trintje. A. & G. Rice, Currie's Crossing	75.7	2.33	6.34	46.60	25.40	10.0	82.0
3rd.	Pauline Mercedes Jewel. A. & G. Rice	75.1	2.30	6.35	45.82	25.35	6.9	73.1
4th.	Pauline Fairmont. A. & G. Rice	72.2	2.40	6.49	48.12	26.00	.0	74.0
5th.	Kaatje de Boer 3rd. G. W. Clemons, St. George.	61.6	2.30	5.75	45.90	23.00	3.8	72.7
Jersey Cows over 36 months.								
1st.	Primrose Park's Prude. W. J. Craig, London	65.9	4.16	6.80	8.32	27.2	.4	110.8
Grade Cows over 36 months.								
1st.	Jess. Rettie Bros., Norwich	96.3	4.03	8.84	80.8	35.36	.0	115.8
2nd.	Dina. T. H. Dent, Woodstock	119.7	3.90	10.69	68.2	45.75	3.4	114.4
3rd.	Jersey. James Leask, Greenbank.	101.1	3.79	9.59	75.8	35.00	.5	114.3
4th.	Sweet Assurance. A. McDougall, Guelph	89.4	3.90	8.46	77.9	33.9	1.8	113.8
Grade Cows under 36 months.								
1st.	Julia. T. H. Dent, Woodstock	84.6	3.11	7.89	62.36	31.54	2.6	96.1
Shorthorns 36 months and over.								
1st.	Rene. A. W. Smith, Maple Lodge	81.5	3.08	7.72	61.52	30.88	1.2	93.6
2nd.	Gypsy Maid. F. Martindale, York	79.5	3.10	7.47	62.00	29.88	.0	91.9
3rd.	Mistletoe 5th. H. J. Davis, Woodstock	94.5	2.72	8.85	54.40	35.40	.0	89.8
4th.	Gracey Gwynne. J. Kelly, Shakespeare	76.1	2.92	7.42	58.40	29.68	.0	88.0
5th.	Roan Blanche. A. W. Smith, Maple Lodge	72.4	2.79	7.02	55.80	28.08	2.5	86.3
6th.	Jubilee's Julia. H. K. Fairbairn, Theford.	71.7	2.61	6.58	52.20	26.32	4.3	82.7
7th.	Mary Maxwell. H. K. Fairbairn	38.4	1.41	3.71	28.20	14.84	5.4	48.3
8th.	Francis Folsom. H. K. Fairbairn	28.0	1.00	2.55	20.00	10.20	3.9	34.1
Shorthorns under 36 months.								
1st.	Bella of York. F. Martindale, York	51.1	1.82	4.86	36.40	19.44	1.5	57.4
2nd.	Jeanetta. H. K. Fairbairn, Theford	10.6	1.49	3.77	29.80	15.04	3.9	48.8
3rd.	Golden Gem. H. K. Fairbairn	40.9	1.46	3.88	28.20	15.52	3.5	48.2
Ayrshires over 36 months.								
1st.	Briery Banks Cora. N. Dymont, Clappison's Corners.	81.4	3.42	7.78	63.4	31.12	5.9	105.4
2nd.	Nellie Gray. N. Dymont	80.8	3.14	7.66	62.8	30.64	9.1	102.5
3rd.	Briery Banks Susie. N. Dymont	62.1	2.15	5.68	43.0	22.72	8.8	74.6

SHEEP.

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

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

LINCOLNS.

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

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



ONE WETHER AND FOUR EWE LAMBS, SHROPSHIRE.
Winners of Prince of Wales Prize for five sheep under one year, against all breeds, at the Ontario Provincial Fat Stock and Dairy Show, 1898. The ewes were sired by Newton Lord, and the wether by his son.
BRED AND OWNED BY JOHN CAMPBELL, WOODVILLE, ONT.

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

LEICESTERS.

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

OXFORDS.

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

SHROPSHIRE.

always put up an interesting show, as the best

flocks in the country are drawn upon and fitted by skilled shepherds. Messrs. John Campbell, Woodville; D. G. Hanmer & Sons, Mt. Vernon; Telfer Bros., Paris; Richard Gibson, Delaware; W. E. Wright, Glanworth, and W. H. Beattie, Wilton Grove, supplied the material that took a deal of consideration in the placing of awards, as the stock throughout was high-class in breed type, and generally at the height of bloom, with very few entries materially overdone. With this, too, the trimmers' art had been exercised to good account, so that the display was highly pleasing, alike to spectators and those who took occasion to handle the entries. The single ewe lamb section had no less than 14 entries, the poorest of which were fine specimens. Messrs. Hanmer made a record here in carrying away the best award on as neat a little sheep as one could find in a lot of hunting. She had a great back, broad and full, deep at chest, and full leg of mutton, besides her covering and style were faultless. The second fell to Richard Gibson's entry by Prince Royal, one of the high-per-cent. mutton sort, well let down in body, and of beautiful contour. John Campbell stood third and fourth on a model pair by his World's Fair winner, Newton Lord. In three ewes under a year, those of Campbell's Newton Lord's get were invincible, as they were as like as peas and as plump as need be. Hanmer's came second and fourth, and Gibson's third. Wether sections were well filled throughout. Richard Gibson won first and third in shearings, second in three wether lambs; Campbell won second in shearing and first on wether lamb; Hanmer won second and third in single wether lambs and first for three of that sort; W. H. Beattie got into the money awards in three wether lambs, and Messrs. Telfer and Wright came in for commendation ribbons on different occasions. The block test revealed the fact that Shropshire mutton is good mutton. Mr. Gibson's wether lamb, which dressed 53 pounds, or 59 per cent. of live weight, was pronounced by the judges to be just what is wanted. It was fairly thick, and all salable at a good figure. W. H. Beattie's shearing was a second-prize winner. He dressed 90 pounds, which was also 59 per cent. of his live weight. He too opened well for high-class trade. Messrs. Hanmer won third and fourth in this contest.

SOUTHDOWN.

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

HORNED DORSETS.

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

HAMPSHIRE AND SUFFOLK.

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

GRADES AND CROSSES.

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

SWEEPSTAKES.

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

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

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

DRESSED POULTRY.

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

SWINE.

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

BERKSHIRES.

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

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

YORKSHIRES.

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

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

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

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

CHESTER WHITES.

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



SOUTHDOWN SHEARLING WETHER.

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

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

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

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

POLAND-CHINAS.

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

SUFFOLKS AND ESSEX.

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

TAMWORTHS.

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

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

DUROC-JERSEYS.

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

GRADES AND CROSSES.

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

SWEEPSTAKES FOR BACON HOGS.

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

SWINE IN THE BLOCK TEST.

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

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

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

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

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

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

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

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

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

being second W. M. Smith on his sow. George & Son; sow, under 6 ding class; A.

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

The Smithfield Fat Stock Show.

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

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

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

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

	Age in days	Weight in lbs.	Daily gain.
Devon	523	1,188	2.23
Hereford	686	1,653	2.41
Shorthorn	536	1,340	2.50
Sussex	714	1,544	2.16
Red Polled	686	1,680	2.42
Aberdeen-Angus	599	1,309	2.18
Galloway	726	1,390	1.91
Welsh	724	1,745	2.41
Dexter	694	857	1.24

SHEEP.

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

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

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

Cotswolds were represented by three pens of lambs and one of wethers. Mr. Wm. Thomas' lambs were well-grazed, fine specimens, two of them especially. They were 18 lbs. over 5 cwt., but Mr. F. Craddock's second-prize pen scaled 4 lbs. more, or 193 lbs. each. Mr. Craddock's lambs were younger than Mr. Thomas', the age of the second pen being returned as eight months three weeks, but that of the first pen, which also took the breed cup, was ten months. Mr. Craddock had no competitor in the wether class, but his sheep were noble-looking, grand specimens.

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

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

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

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

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

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

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

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

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

THE SHORT-WOOL CHAMPIONSHIP.

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

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

	Age in days	Weight in lbs.	Daily gain.
Leicester	243	148	0.61
Border Leicester	256	154	0.60
Cotswold	264	194	0.73
Lincoln	288	210	0.73
Devon Long-wool	274	213	0.78
Cheviot	277	155	0.68
Southdown	274	146	0.53
Hampshire	313	219	0.70
Suffolk	281	211	0.75
Suffolk	274	162	0.59
Shropshire	327	203	0.62
Oxford Down	335	207	0.62
Dorset			

PIGS.

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

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

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

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

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

THE CARCASS COMPETITION.

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

The first prize and junior championship in the cattle carcass competition for steers not over 2 years went to Mr. J. D. Fletcher's cross-bred steer, got by an Aberdeen-Angus bull, and from a Hereford cow, weighing alive and fasted, 1,358 lbs., and his carcass weight 870 lbs., being 65 per cent. of the live weight. The senior championship and first prize for steer over 2 and under 3 years was won by Her Majesty the Queen's Aberdeen-Angus entry, weighing fasted 1,308 lbs., and dressed 894, or 60.7 per cent. Mr. Nimmo's Galloway was the second-prize winner, weighing alive 1,680 lbs., and dressed 1,155 lbs., or 68.75 per cent.

With regard to the sheep carcasses, the usual complaint was that they carried too much fat. In Long-wool wether lambs the first prize was given to a Mountain lamb, weighing alive 106 lbs., and dressed 71 lbs. The second-prize lamb was a Cheviot, which weighed alive 100 lbs., and dressed 62 lbs. Mr. Dudding's Lincoln lamb weighed alive 145 lbs., and dressed 86 lbs., or 59 per cent.; the excess of shrinkage in this case being principally in the skin, which, with its wealth of wool, weighed just twice as much as that of the second-prize winner.

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

In Short-wooled wether lambs, the first prize went to Mr. Buxton's Hampshire lamb, weighing 148 lbs. alive, and dressing 95 lbs. The second-prize winner was S. R. Sherwood's Suffolk, which weighed alive 145 lbs., and dressed 95 lbs.

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

The cwt. and qr. used throughout this report represent 112 and 28 pounds, respectively.

Mr. W. D. Flatt's Great Sale of Shorthorns.

An event which had been awaited with much interest by stockmen and farmers generally in Canada and the United States was the sale of Shorthorn cattle from the herd of Mr. W. D. Flatt, of Hamilton, Ont., held in that city on December 20th. Sixty head of cattle were advertised to be sold on that occasion, 43 of which were imported during the past year, and 37 head of these were brought direct from the quarantine station at Quebec the week previous to the sale. The cattle were, therefore, not in the best condition for selling to the advantage of the seller, though they were in real good breeding condition and the odds in favor of the buyers. The sale was admirably arranged and conducted, reflecting great credit on the enterprise, good taste and judgment of Mr. Flatt, and the capable auctioneer, Col. F. M. Woods, of Lincoln, Nebraska, who made his debut as a salesman in Canada on this occasion, but who has had very extensive and successful experience in conducting large sales of pedigreed stock in the United States. Col. Woods displayed great tact and skill in holding the attention of the large audience and securing prompt and steady bidding. There were about 500 persons comfortably seated on the raised seats in the tent in which the sale was held, nearly all of whom were actual breeders and stockmen, no local advertising having been done, as it was felt that a crowd of that kind would hinder rather than help the sale.

Besides the very large contingent of Ontario breeders present, Hon. Thomas Greenway, of Manitoba, was represented by one of his sons and his farm manager, who did a lot of plucky bidding and secured several of the plums; and there were bidders and buyers from the States of Missouri, Iowa, Wisconsin, Michigan, Indiana, Ohio, New York, Pennsylvania, and Virginia.

There were no sensational prices made, none going beyond three figures, though if the animals had been in higher condition no doubt a number of them would have gone past that mark; but the average was very satisfactory, and the prices paid were on a business basis. It probably came as a surprise to many that the highest price of the sale was made by a bull calf only four months old; not, we presume, because he was named Sir Wilfrid Laurier, but owing to the fact that he possessed striking individual merit and was the son of his father, the Royal champion, Marengo, whom he is said to strongly resemble in form and color. The youngster had had a trying experience from the start, having left the land of his birth at the age of three weeks as an immigrant, and been travelling or waiting in quarantine from that time till the date of the sale. He fell to the bid of P. S. Lewis & Son, Point Pleasant, West Virginia, being pluckily followed by Capt. D. Milloy, of Paris, Ont., who came within one bid of securing the prize. Probably no one present would have guessed that this little calf would have brought more money than his excellent mother, imported Linda, the highest-priced female, sold for \$630 to Mr. B. C. Rumsey, of Buffalo, N.Y., and more than Precious Stone (the pride of his late owner), the elegant two-year-old bull that was knocked down at \$800, the second highest price in the sale, to Mr. W. C. Renfrew, Stouffville, Ont. Messrs. H. Cargill & Son, Cargill, Ont., secured the second highest priced female, Craibstone Baroness, at \$610, a roan two-year-old, which was a general favorite, and one of the most perfect animals in the entire collection, and the same owners took the beautiful ten-months imported heifer calf, Belladonna, at \$510; also the wealthy imported yearling heifer, Empress of India, at \$500.

Mr. J. M. Gardhouse, Highfield, Ont., made an excellent selection in imported Jenny Lind, a substantial and shapely two-year-old cow, with a capital young bull calf at foot, for \$535; and Capt. T. E. Robson, Ilderton, got a prize in the typical three-year-old cow, imported Sunny Blink 5th, at \$430. The average of \$409.64 on the 56 head sold, 4 being calves, which are coupled with their dams in this statement, and a grand total of \$22,940, is a very gratifying result, and Mr. Flatt may well be congratulated on the success of his venture in holding the initial number of a contemplated series of annual sales. We give below a list of the animals sold, with prices and purchasers:

COWS AND HEIFERS.

Maud 11th (Imp.), Geo. Harding & Son, Waukesha, Wis.	\$ 400
Blossom (Imp.), J. G. Robbins & Sons, Horace, Ind.	360
Northern Empress (Imp.), A. G. Alton, Burlington, Ont.	435
Celia 8th (Imp.), T. J. Wornal, Mosby, Mo.	500
Flore 7th (Imp.), S. H. Thompson & Son, Iowa City, Iowa	510
Vinella 13th (Imp.), S. H. Thompson & Sons.	445
Primrose 4th (Imp.), Geo. Mitchell, Port Hope, Ont.	420
Jenny Lind (Imp.), J. M. Gardhouse, Highfield, Ont.	535
Duchess (Imp.), J. T. Gibson, Denfield, Ont.	270
Victoria (Imp.), W. B. Campbell, Campbellcroft, Ont.	430
Mercia (Imp.), Arthur Johnston, Greenwood, Ont.	460
Nonpareil Lassie (Imp.), H. Cargill & Son, Cargill, Ont.	460
Roan Empress (Imp.), F. A. Gardner, Britannia, Ont.	375
Rissy (Imp.), R. J. Doyle, Owen Sound, Ont.	300
Strawberry (Imp.), Allan Bros., Oshawa, Ont.	290
Rosewood 77th (Imp.), S. H. Thompson & Sons	310
Emma 29th (Imp.), T. J. Wornal	430
Augusta 33rd (Imp.), H. Cargill & Son	600
Nonpareil 31th (Imp.), A. E. Hoskin, Cobourg, Ont.	690
Clipper 2nd (Imp.), H. Cargill & Son	350
Martina (Imp.), Hon. T. Greenway, Crystal City, Man.	400
Mary (Imp.), Arthur Johnston	255
Sophia (Imp.), J. G. Robbins & Sons	235
Montford Honeycomb 6th (Imp.), J. G. Robbins & Sons	300
Countess 3rd (Imp.) H. Cargill & Son	450
Sunny Blink 5th (Imp.), T. E. Robson, Ilderton, Ont.	430
Avarice (Imp.), Lanaghan Bros., Goose Lake, Iowa	300
King's Magic 1th (Imp.), J. G. Robbins & Sons	460
Belladonna (Imp.), H. Cargill & Son	510
Craibstone Baroness (Imp.), H. Cargill & Son	610
Daisy 2nd (Imp.) and calf, Geo. Harding & Son	500
Linda (Imp.), B. C. Rumsey, Buffalo, N. Y.	630

Empress of India (Imp.), H. Cargill & Son	\$ 500
May Bloom, Wright & Boyden, Delhi Mills, Mich.	175
Rose of Trout Creek, J. L. Higgins, Detroit, Mich.	225
Rose of Trout Creek 2nd, J. L. Higgins	260
Princess of Brant, Wright & Boyden	350
Lady Brant and calf, John Smith, Brampton, Ont.	350
Idylwild = 30324 = W. A. Boland, Grass Lake, Mich.	350
Missie of Springfield = 32756 = R. Miller, Stouffville, Ont.	325
Canadian Duchess of Gloster 31st = 31227 = C. Hintz & Son, Fremont, Ohio	400
Village Lily 3rd, T. J. Wornal	335

BULLS.

Sir Wilfrid Laurier (Imp.), P. S. Lewis & Son, Point Pleasant, W. Va.	900
Precious Stone (Imp.) (73227), W. C. Renfrew, Stouffville, Ont.	800
Proud Crescendo (Imp.) (75340), T. J. Wornal	705
Master of the Clan (Imp.), J. G. Robbins & Sons	550
Quarantine King (Imp. in dam), Allan & Sons, Oshawa, Ont.	235
Prince Louis (Imp.), John Isaac, Markham, Ont.	400
Sittytown Style (Imp.), J. R. Lawrence, Canal Fulton, Ohio	365
Royal Archer (Imp.), Lanaghan Bros	600
Mainspring = 31636 = Jas. Chinnock, Chatham, Ont.	210
Masterpiece = 31637 = J. E. Silverthorn, Rossville, Ind.	500
Klondike 2nd, A. C. Henders, Hamilton, Ont.	135
Golden Prince = 31614 = Geo. Luxon, Kendall, Ont.	155
Golden Earl 2nd, Geo. Harding & Son	155
Duke of Scarboro = 31418 = Wm. Watt, Salem, Ont.	155
Golden Hero = 31613 = S. B. Gorvill, Fausshaw, Ont.	185
Golden Treasure = 31419 = S. C. Cunningham, Burgettstown, Pa.	150

Type of Hogs for Bacon Production.

At the annual meeting of the Dominion Swine Breeders' Association, held at London, December 12th, Mr. G. E. Day, B. S. A., Professor of Agriculture at the O. A. College, with the aid of a chart we herewith reproduce, gave a valuable address on the question of bacon type. He had prepared also a scale of points for hogs of bacon type, deduced largely from the demands of the market, as indicated by the chart displayed, not losing sight, however, of the pig-grower's end of the industry. Copies of the scale of points were circulated among

Quality:	Description.	Points.
Ear, rather thin (1); hair, fine and abundant (2); skin, smooth, showing no tendency to wrinkle (3); bone, flat and clean in legs, moderately fine in snout and head, and showing no prominence on side and top of shoulder (5); flesh, firm and smooth, with no flabbiness at jowl, fore flank, belly, or ham (5).....		15

Style: Active and sprightly in movement, walking without a swaying motion, and standing well on toes..... 5
 N. B.—For hogs intended for killing, the same scale of points may be used, with the following modifications: Strike out score for eyes, ears, hair, and style; deduct two points from points allowed fore legs and also hind legs, and add following score:
 Weight, 175 to 200 lbs., live weight. Being under 160 lbs. or over 220 lbs. will disqualify..... 13

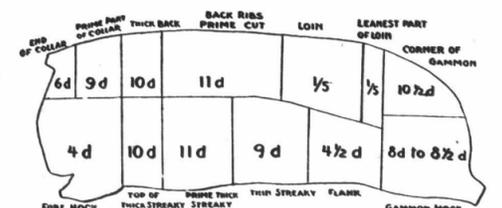


DIAGRAM SHOWING VARIOUS CUTS OF A SIDE OF BACON, AND THE AVERAGE PRICES REALIZED IN ENGLISH MARKETS IN 1897.

The loin and the leanest part of the loin cuts sold at one shilling per pound.

Prof. Day at the commencement explained that the Canadian and American export trades in pork products differ so widely that there is really no competition between them. Americans, with their cheap corn and early-maturing breeds of swine, can better afford to produce thick, heavy pork than we can; while we, on the other hand, can most profitably cater to the higher class trade of England in bacon meat. It was also explained that the Canadian demand is for the same class of pork as the English, so that practically all our efforts along pig-raising lines should be in the direction of bacon production. Even the lumber camps are calling for leaner meat than formerly, so that whatever views we hold in the matter, if we are to succeed we must swallow our prejudices, learn what the packers need, and pay attention to the production of that sort.

The side of bacon illustrated and divided into the different cuts is marked with the relative prices obtained in the British market. The scale of points was discussed at some length, the Professor explaining why he fixed the values given. It was prepared, he pointed out, not for use in the showing, nor for the purpose of setting up an arbitrary rule, but chiefly for classroom work in connection with his lectures to the students at the College. There were leading hog breeders of the country present at the meeting, as well as managers of departments in various packing-houses. While each of these classes were appealed to for criticism of the scale, there were no changes proposed as being desirable, so that we may take it as an ideal scale of points for bacon hogs of the present-day requirements.

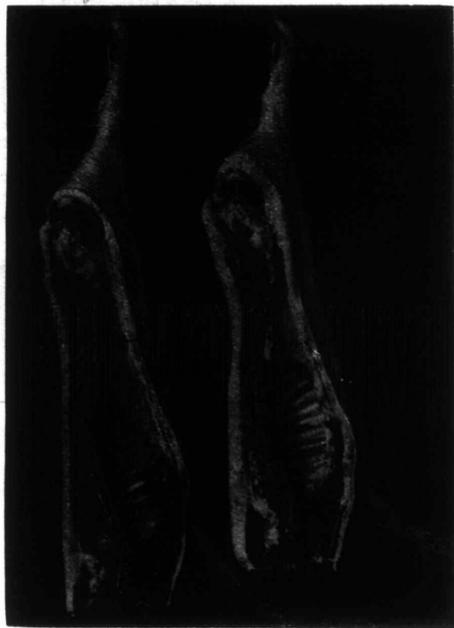
In answer to the question, why were pigs so cheap during the past autumn? it was pointed out that the supply on the British market was very heavy, and that the consumers of high-priced meats, such as bacon, were being supplied at that season with poultry and game. It was pointed out by Mr. Wilson, of the Ingersoll Packing Co., that the price in England fluctuates greatly, even in a short period. For instance, the extremes in June and July were 36 and 58 shillings per cwt.; in September, 40 to 51 shillings; October, 40 to 45; November, 38 to 42 shillings, and so on throughout the year. These prices are for Wiltshire sides of first quality, which cost the packers 7 cents per pound from pigs costing 4 cents per pound. Again, it was pointed out that the packers meet heavy losses in various ways. For example, out of 190 boxes shipped in one consignment, 45 had to go as bruised sides, 11 as soft, all of which sell for low figures.

Single Judging Approved.

The *Farmer's Gazette* in its issue of December 16th says: "Single judging was put to a trying test at the great Smithfield Fat Stock Show held in London last week, and the system came through the ordeal with flying colors. The adjudication in most of the classes was completed at an unusually early hour. The awards gave very general satisfaction, and an especially noteworthy feature of the Show was that the same types of animals were found winning in the different classes—a condition of affairs which has not always been the case heretofore when two or more judges officiated. When several judges officiate, and each favors a particular type, animals of quite different types are often found winning in the same class—the result of one judge giving way to his colleagues over one beast, but equalizing matters by insisting on another getting second or third place. Cases of this kind have been of frequent occurrence, and they have caused much dissatisfaction."

The Best Service.

CHARLES CRAIG, Middleton, Prince Edward Island:—"THE FARMER'S ADVOCATE, in my opinion, is worth working for. I feel if I can induce a brother farmer to subscribe for it, I am doing him a good service; in fact, the best I can possibly do for him."



BERKSHIRE SIDES AT ONT. PROVINCIAL FAT STOCK AND DAIRY SHOW, 1899.

Side on left suitable for bacon, on right too short and fat.

the audience for their approval, guidance, or criticism, as seemed called for by each individual.

SCALE OF POINTS FOR HOGS OF BACON TYPE.

Description.	Points.
Head and Neck:	
Snout, moderately fine	1
Eyes, good size, full and bright	1
Jowl, light and neat	1
Neck, medium length and rather light, with no tendency to arch on top	3
Fore Quarters:	
Shoulders, light, smooth, rounded from side to side over top and very compact, no wider than back	9
Breast, good width, and full	4
Fore legs, set well apart, medium length, and straight; pasterns, upright; bone, flat, clean, and moderately fine	4
Body:	
Back, medium width, rising slightly above the straight line, and forming a very slight arch from neck to tail	9
Loin, strong and full but not unduly arched, wide as rest of back	5
Ribs, good length, and moderately arched	3
Side, fairly deep; long, smooth, and straight between shoulder and ham; a straight-edge laid over shoulder point and ham should touch the side throughout	12
Heart-girth, full but not flabby; there should be no tuck-up appearance back of fore legs, nor droop back of shoulder top	5
Flank, full and low	1
Under line, straight; the belly should be markedly trim and neat	5
Hind Quarters:	
Rump, same width as back, long and slightly rounded from a point above hips to tail, and rounded from side to side over top	5
Ham, full without flabbiness; thigh, tapering towards hock without wrinkles or folds, and carrying flesh well down towards hock	6
Hind legs, medium length; hocks, set well apart, but not bowed outward; bone, flat, clean, and moderately fine; pasterns, strong	4

FARM.

Experimental Union.

BEST VARIETIES OF GRAINS, ROOTS AND FODDER CROPS, AND HOW BEST TO CULTIVATE THEM.

The Ontario Agricultural and Experimental Union was held at the Guelph College on December 6th, 7th and 8th. There were over one hundred ex-students in attendance, besides a large number of experimenters and visitors. The first evening's programme consisted of addresses dealing largely with the history of the institution, which stretches back over twenty-five years. Notably among these was a review by Dr. Jas. Mills, similar to what he gave in our issue of Dec. 1st. Hon. Chas. Drury was also present, and gave a brilliant address, in which he praised the work of the president and referred to the growing public sentiment backing the work of the institution. He also praised Hon. Mr. Dryden's earnest efforts in behalf of the cause of agriculture.

Professor J. W. Robertson, Dominion Dairy Commissioner, speaking for the ex-officers, dealt with the relative merits of the Guelph College as compared with the agricultural colleges of France, Germany, and Great Britain, having visited the leading agricultural institutions of those countries, which he claimed are not to be compared to ours in equipment, staff and practical work accomplished. "The education gained at Guelph," he stated, "is not merely a gathering of information, but it is such as to fit one for the activities of common life." A course there, too, tends to bring about correct habits in those who pass through its halls. Touching references were made to ex-officers, referring more particularly to Professors Brown, Shaw, Hunt, and the late Prof. Pantou.

Prof. C. C. James, Deputy Minister of Agriculture for Ontario, spoke on the future of the institution. He said that success had crowned the efforts of the institution, as its foundation was laid strong, deep and well. Referring to the field for students in Ontario, the Deputy Minister stated that there are 180,000 families on the farms of Ontario, and on these there are approximately 300,000 boys. Of these, 40,000 to 50,000 are at a suitable age to enter the course. As a matter of fact, there are this year about 160 students in attendance—less than one per cent. of those the college is open for. In looking about for a means of reaching the 99 per cent. who cannot or do not come to the college, Prof. James took hope in the fact that agricultural teaching is to become a growing part of public school teaching. Other helps will continue to come from the Farmers' Institutes and from the example of ex-students in their respective localities. Prof. James would like to see the students go out from the institution prepared to take the Institute platforms and proclaim the truths of scientific agriculture. He could not speak with certainty regarding the future of the college, but he expressed the belief that an extension in the direction of domestic science would be advantageous to the institution and to the country.

Mr. John I. Hobson, Chairman of the Advisory Board, spoke of the College as the model after which a Scottish institution is being patterned.

Messrs. G. C. Creelman, B. S. A., Supt. of Farmers' Institutes; Nelson Monteith, B. S. A., M. P. P.; H. L. Beckett, B. S. A., President of the Experimental Union; and Prof. G. E. Day, B. S. A., gave brief addresses that were especially interesting to the ex-student body present.

During the two following days the time was very largely occupied with Mr. C. A. Zavitz's report of the twenty-three co-operative experiments carried out over the Province with fertilizers, and the various farm crops on 3,485 farms in 1899. From these farms 739 satisfactory reports had been received, from which the charts or tables used to illustrate his report were made up.

The following table shows the number of acres of the various crops grown in Ontario in 1899, the number of varieties of each tested on the O. A. C. in fifteen years, and the number tested in the co-operative experiments in 1899 over Ontario:

	Acres in Ont., '99.	At O. A. C., 13 yrs.	Var's tested over Ont., '99
Hay and clover.....	2,505,422	72	8
Oats.....	2,363,778	218	4
Fall wheat.....	1,049,691	152	7
Peas.....	743,139	100	5
Corn.....	505,025	226	6
Barley.....	490,374	95	4
Spring wheat.....	398,735	144	3
Potatoes.....	168,148	241	6
Turnips.....	153,440	183	4
Rye.....	137,824	6	1
Buckwheat.....	132,082	6	3
Mangels.....	53,401	102	4
Beans.....	40,850	41	6
Carrots.....	11,891	60	4

Pres. H. L. Beckett, in his address, referred to the unfavorable pasture season in many parts of the Province, and pointed out that the effect would be to force farmers to depend less on pasture and more on soiling crops during the dry months. The development of the co-operative experimental work was a matter for gratification, as it is of genuine help to the business of agriculture. All good varieties of crops are forcing themselves on the Union, so that their real merits will very soon become known. The benefits of experiments are of great personal advantage to those who conduct them, as

they open up new fields of investigation, develop observation, and become general eye-openers.

During Mr. Zavitz's discussion upon fertilizers, he pointed out that superphosphate applied to mangels gave larger returns than nitrate of soda, muriate of potash or complete fertilizer. He found in several instances that the increase of crops from the use of fertilizers was frequently insufficient the first year to warrant their use. Comparing the hairy vetch with the common vetch and grass peas, the hairy variety gave much the best returns in green fodder per acre. Of various mixtures of grains for green crops, oats one and a half bushels, with one bushel of peas per acre, gave better satisfaction to experimenters than oats, peas and tares, or oats and tares. Of millets, Japanese panicle gave an average in two years of 6.4 tons per acre, as compared with 5.9 tons of Japanese barnyard millet and 4.8 tons of Hungarian grass. This crop was strongly recommended to supplement corn, etc., as green fodder and as pasture in a dry time. Of the grasses, tall oat, timothy, orchard and meadow fescue, the first named gave three tons of hay per acre at the first cutting in the second year, as compared with 2.7, 2.0 and 2.1 tons of the others mentioned in the above order. Of clovers, Mammoth red clover produced 3.6 tons of hay per acre the second year at the first cutting, while common red gave 2.4; alsike, 2.4, and lucerne, two tons per acre. The Mammoth variety grows a coarser stem and is slower to cure than the common red. It is also almost two weeks later, but makes good hay when carefully made in favorable weather. Lucerne gives several cuttings a year, so that the above figures do not fairly represent its comparative value. Japanese buckwheat gave an average during the last three years over Ontario of 23.3 bushels per acre, as compared to Silver-hull at 22.4, and common gray at 21.4 bushels. Of Wellman's Fyfe, Rio Grande and Herrison's Bearded spring wheat, the first named gave an average return over Ontario of

ever, too great a quantity must not be kept together, as the chop in that condition is liable to heat and mould. In discussing varieties at this juncture of the meeting, Prof. Robertson made the observation that while the varieties that produced the heaviest yields over the Province may be taken in a general way as the safest to grow, it is not an infallible guide, and he strongly recommended farmers to test for themselves on their own farms several of the leading sorts recommended by the Union.

The experiments with roots were equally instructive with the cereals. Of carrots, Pearce's Improved Half-long yielded 26.6 tons per acre; Large White Belgian, 26.2; Guerande, 22.6, and Danver's Orange, 22 tons per acre. Pearce's Improved Half-long is preferred to the others, not only for the extra yield, but also for the ease with which they are harvested as compared to some of the others. The demand for mangel seed grows with the dairy industry, since turnips are held in disfavor for the cows. In 1899 the demand was over three times that of any former year. The co-operative tests place Evan's Improved Mammoth Sawlog in the lead for yield with 31.8 tons per acre. Carter's Champion Yellow Intermediate gave 30.4 tons, but stands ahead of the foregoing in form and keeping quality. Carter's Warden Yellow Globe gave an average over Ontario of 27.6 tons, and Danver's Improved sugar beet, 27.3 tons per acre. By this it will be noticed that sugar beets, which have more feeding value than mangels, are creeping up in yield, so that a larger acreage of this crop may be expected in years to come. In turnips, Cow Horn leads in yield at 20.5 tons per acre; Jersey Navet, 18.6; Hartley's Bronze-top, 14.9, and Carter's Improved Hardy, 13.3 tons per acre.

The demand for potato seed is very heavy each spring, and for years, although many sorts have been tested, Empire State leads in favor, as it produces the highest yield, highest per cent. marketable, and is preferred to any of the others for table quality. It produced 204 bushels per acre over Ontario, 86 per cent. marketable. American Wonder yielded 188 bushels per acre, 84 per cent. marketable. Tonhocks, 172 bushels, and 72 per cent. marketable. Burpee's Extra Early gave 169 bushels, 74 per cent. of which were marketable. This variety stands next to Empire State in table quality. Regarding the advantage or disadvantage of cutting potatoes some time previous to planting, Mr. Zavitz reported that tests conducted on 218 farms over Ontario the past season show an average yield of 182 bushels per acre from seed planted as soon as cut, and 168 bushels from seed cut from four to six days previous to planting, showing that freshly-cut seed is most suitable to plant and is improved by an application of land plaster to the cut surfaces.

In growing corn for the silo it is highly important to get the sort most suitable to the district in which it is to be grown. The tests that have been conducted by the Union the past season show Mammoth Cuban and Mastodon Dent to be best adapted for southern Ontario; Wisconsin Earliest White Dent for central, and Salzer's North Dakota and King Philip for central and more northern districts. In point of yield, Mammoth Cuban gave 14.3 tons of crop, including 2.8 tons of ears; Mastodon, 13.5 tons of crop and 2.8 tons of ears; Wisconsin Earliest White Dent, 12 tons of crop and 2.8 tons of ears; Salzer's North Dakota, 11.2 tons of crop and 2.6 tons of ears; and King Philip, 10 tons of crop, including 2.7 tons of ears per acre. In a number of experiments to indicate whether growing corn in hills or drills give best results, it was found that in hills or squares three feet apart each way the whole crop produced was 11.5 tons per acre, with 2.7 tons of ears. The same quantity of seed per acre sown in drills three feet apart and given the same amount of cultivation produced 10.3 tons of crop, yielding 2.2 tons of ears per acre.

Small Fruit Culture.—Prof. Hutt reported the result of experiments with strawberries, raspberries, currants and gooseberries on 225 farms in different parts of Ontario. In these tests 4,800 strawberry plants, 600 each of raspberries, black raspberries and blackberries, and 300 plants each of currants and gooseberries were used.

In strawberries, the Clyde is found to be one of the most promising new sorts. It gave this year an average of 179.4 ounces of berries to each dozen plants; Woolverton came 2nd with 124.9 ounces; Haverland 3rd with 124.6, and Van Diemen 4th with 84.6 ounces of fruit per dozen plants the second year of growth. The Haverland, an early bloomer, gives an imperfect flower. The Van Diemen, which blooms about the same time, will fertilize the Haverland. The practice in commercial planting is to put the one required for fertilizing purposes in every fourth row. The Clyde and Woolverton are both perfect blooming varieties. The Clyde is a mid-season variety and holds out well. The Woolverton will stand the drought better than the Clyde. The Van Diemen rusts more than the others, but this tendency may be checked to a certain extent by spraying.

Raspberry experiments were unsatisfactory in 1899, owing to the severity of last winter, which destroyed many bushes. Shafter ranked 1st in five tests in plots planted in 1897, giving 51.4 ounces of fruit to the bush; Outhbert, 37 ounces; Golden Queen, 38.6, and Marlboro, 34.6 ounces. Outhbert is a bright, large, firm berry, and a better seller than Shafter, which is dark and soft, but quite suitable for home use.

In currants, Raby Castle yielded 39.6 ounces per



SIDES OF TAMWORTH BACON HOGS AT ONT. PROVINCIAL FAT STOCK AND DAIRY SHOW, 1899.

The center side is excessively fat.

23.5 bushels per acre in 1899; Rio Grande, 20.5, and Herrison's Bearded, 19.3 bushels per acre. They also produced bulk of straw in the same proportion. Wellman's Fyfe produced the stiffest straw and is very similar, if not the same, as the old White Russian variety. Of barleys, Oderbrucker yielded 41.5; Mandscheuri, 38.7, and Success, 34.2 bushels per acre. Siberia oats stand well ahead of the next three sorts, having given 55.7; Bavarian, 53.6; Joannette, 51.8, and Poland White, 49 bushels per acre. Siberian produces a stiff straw, and in 1898 averaged 1.7 tons per acre.

The report and discussion on peas brought out much information, owing to the value of the crop and the danger that threatens it from the pea bug (*Bruchus pisi*). So bad has this pest become, in some districts pea-growing is threatened with destruction. The heaviest yielder this year over Ontario was Early Britain, producing 23.1 bushels per acre and 1.2 tons of straw; Chancellor gave 27.5 bushels of grain and 1.3 tons of straw; Prussian Blue, which has been a favorite for years, yielded 27.2 bushels of grain and 1.5 tons of straw, while Striped Wisconsin gave 25.2 bushels of peas and 1.5 tons of straw. Regarding the dates of sowing peas to escape the bug, it was reported that peas sown April 30th produced 83 per cent. of infested peas; May 13th, 76 per cent.; May 25th, 67 per cent., and June 6th, 46 per cent. So far, late sowing seems a success; but the returns in crop have a lesson also. The yield from April 30th sowing was 17.9 bushels per acre; May 13th, 13.7; May 25th, 11.9, and June 6th, 6.2 bushels per acre. When this fact was pointed out to a gentleman in the audience remarked that a little later sowing would get rid of both that and the pea bug. The conclusions arrived at were that the peas should be sown early, so as to get a full crop, which should be threshed as soon as harvested, and treated with carbon bisulphide or ground at once for feed. If the latter is done, how-

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bush, planted in 1897; Victoria gave 34.9; Fay, 27.6, and White Grape, 17.3. Fay is a general favorite, which with White Grape will make an excellent home collection. Houghton gooseberry is the heaviest yielder, producing in 1899 45.2 ounces per bush, planted in 1897. Downing is a good second, yielding 39.2 ounces; Industry, 24.5, and Whitesmith, 24.5 ounces per bush.

Intensive Farming.—An excellent address, clearly delivered, by Mr. Geo. T. Powell, of Ghent, N. Y., was much appreciated. In the space at our command we give our readers a brief summary. Moderate or low yields of crops bring about a condition hard to meet. At the present day we see a tendency to spread over too much area. The aim should be to produce a maximum yield. A twenty-bushel crop of wheat is dangerously near the margin of cost, while a 40-bushel, or maximum yield, can withstand lower prices without discouragement. Farmers who get beyond average crops, approaching maximum yields, feel the least stress of depression. At this point in his address Mr. Powell turned his remarks in the direction of fruit culture, in which he is an expert authority. In fruit-growing, as in grain-growing, maximum yields are needed, and that with the least possible delay. We must bring trees into fruiting in the shortest possible time. To illustrate, it was pointed out that the average length of time required for apple orchards to come into bearing is twelve years. In many cases it runs from fifteen to twenty years. The Northern Spy is an exceedingly strong, hardy tree, with a fine-grained wood and great powers of resistance against disease and insects. The King represents the height of excellence in flavor, form, color and size of fruit, but the King, if grown on its own stock, is weak. Its limit of usefulness does not extend beyond fifteen years. Under no circumstances should King trees be planted to produce King fruit. The King should be grafted on a hardy tree like the Northern Spy or the Tallman Sweet, which is of like character with the Spy. Trees, like animals, possess varying characteristics, even in the same varieties. Study these characteristics in the tree from which the scions are taken for grafting. In selecting scions Mr. Powell advised taking scions from mature trees that have desirable form, and with a tendency to early fruiting, in order that these qualities may be reproduced on the trunk bearing the graft. The speaker last year, through frequent thorough cultivation, produced an excellent growth of grafts. One branch is grafted each year from the first year after the tree arrives from the nursery until the top is gone over. In this way no serious check is given the tree. By intelligent grafting we can not only regulate the form of our trees, lessen the time required to bring them into bearing, but we can develop the power of resistance to disease. The Baldwin apple is deteriorating, largely from a tendency to fungous disease in the leaves. This weakness would be propagated in offspring from this variety in stem or scion. Besides selection, the intensive methods adopted are along lines guided by intelligence and understanding. It is necessary to study the needs of our crops, in the form of condition, nutrition, and cultivation, and then supply these in proper form. By this method Mr. Powell has developed strawberry plants to such an extent in hills well apart that individual plants have produced as many as six hundred berries in a single season. This indicates what can be done through intensive culture intelligently carried out. Mr. Powell also gave an address on Soil Tillage. Good farming, he held, consisted in cultivating the soil so as to make use of the large stores of fertility already in the soil, and to conserve the moisture. It is a subject of which much is heard to-day, but too little practiced, and Mr. Powell's remarks were timely and well appreciated.

Prof. J. B. Reynolds presented his report on Soil Physics. The conclusions were that rolling the soil immediately after seeding retarded germination, and was detrimental to the crop; but if the harrow followed the roller, good results were realized.

Officers of Experimental Union for Ensuing Year.—President, H. R. Ross, Gilead; Vice-President, Thos. Mason, Straffordville; Secretary and Editor, C. A. Zavitz; Treasurer, H. L. Hutt; Board of Control—President Mills, Nelson Monteith, G. C. Creelman, H. L. Beckett, and C. A. Zavitz.

Better than War News.

SIR,—When the beautiful Christmas number of the FARMER'S ADVOCATE came to hand I was reading the war news. Gladly I laid aside that which is so cruel and inhumane for the peaceful, happy themes and scenes of agriculture. Oh, when will the sword and spear be beaten into the plowshare and pruning hook, and men learn war no more?

Agriculture is more interesting to me than any tale or romance, for it has to do with the real things of God that lie all around us. We help nature, and in return nature helps us.

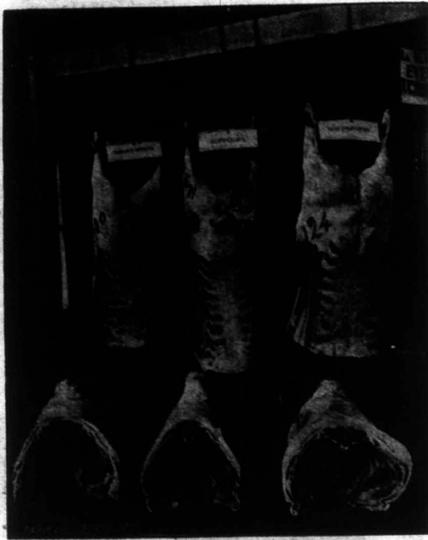
Every farmer who reads this really fine edition of the ADVOCATE will have an increased love and pride in his calling. The effect will be to draw out the best that is in him and his acres; and those who are not farmers may read with pleasure about what the Hon. Sidney Fisher calls the great Canadian farm which stretches from the Atlantic to the Pacific.

That chapter and scene of the old log-cabin times—how true to life. The dear old grandmother with her white-frilled cap, the bed with its gay patchworked quilt, and the little trundle-bed where so many little tired ones have rested, and the ever-

present spinning-wheel in the corner; when the maple trees supplied our sweets, and our apple sauce was made from pumpkins; when we didn't need a daily paper, for we knew everybody's business and everybody knew ours, and we thought it no wrong either.

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

I'm glad that with the rest you have given us the pictures and account of the herds and dairying of Mrs. E. M. Jones. She has done a good work, not alone in showing what can be done with cows, but in clearing the way for other women; what one has done another may do. There was a time when

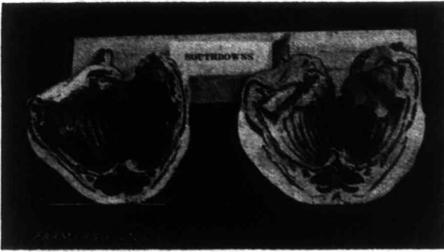


DRESSED CARCASSES OF DORSET HORN, SUFFOLK AND SOUTHDOWN AT ONT. PROVINCIAL FAT STOCK AND DAIRY SHOW, 1899.

Southdown carcass excessively fat.

farmers' wives were afraid to attempt anything in what was considered man's department. But Mrs. Jones has shown that women can be interested and successful in outside affairs, and at the same time keep her home-making and womanly qualities.

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



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

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

pations, in that all have to work for the common good. The wife and children are as essential as the man himself; very often they work quite as hard, and if there be loss or failure they share it alike.

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

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

Mrs. H. ELFORD.

Prof. Robertson's Prizes.

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

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

OATS.

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

WHEAT.

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

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

Farmers' Institutes.

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

but who handles his address so as to arouse discussion among his auditors. It is not well to assume to be very wise, or a blunt and telling rebuke is almost sure to follow, which, too, may have the sympathy of the audience, thus lessening the chances of the speaker leaving with his hearers the valuable points he wishes to impress. The speaker is fortunate who can illustrate a point with an appropriate anecdote, not only to make clear the idea, but to maintain the attention and sympathy as well. A prosy speaker in a warm room is likely to soon have a drowsy audience, who may as well be home as at the meeting for all they are taking in. Short, pithy addresses, the outcome of actual experience, intermingled with fresh, apt anecdotes, and delivered so as to arouse discussion, are what we believe to accomplish the maximum good to the hearers, and therefore to the calling of agriculture.

The Christmas Number and Agricultural Education.

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

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

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

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

When the cultural value of this nature-study which lies at the foundation of scientific agriculture is rightly understood and generally appreciated, it will be given a place on the curricula of all public and high schools just as surely as reading, writing, and arithmetic. The satisfaction with which its advocates contemplate such a result is enhanced by the truth contained in Prof. James' closing sentence that "the making of high-class farmers, honest, industrious, and intelligent, with a special training of mind and senses along the lines of their special work, is the most important problem that concerns this Province to-day." The progress of agriculture means the progress of every other industry, and the improvement of the whole people.

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

DAIRY.

Effect of Food on Quality of Milk.

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

PERIOD.	Variations in fat content.		
	Maximum.	Minimum.	Average.
	Per cent.	Per cent.	Per cent.
1 (June to September), pasture.	5.0-5.8	2.65-2.9	3.71-4.25
2 (October to December), ample stable feeding.	4.1-4.2	2.30-2.9	3.32-3.62
3 (January to May), scant stable feeding.	4.0-4.6	1.10-1.9	3.20-3.30

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



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

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

Lady Instructor at Western Dairy School.

Miss Bella Millar, of Guelph, has recently accepted the position of lady instructor in charge of the home dairy at the Western Dairy School at Strathroy. Miss Millar has had a wide and varied experience in dairy work, being a farmer's daughter and a graduate with first-class honors from the Guelph Dairy School, and was for some time in charge of the dairy on the Dentonia Park Farm belonging to Mr. W. E. H. Massey, and for the past year has had full charge of the Butter Department at the Ontario Agricultural College. Miss Millar is not only an expert buttermaker, but also thoroughly understands the art of cheesemaking, running of cream separators, milk testing, and care of milk and cream for home and city use. The management of the Western Dairy School are to be congratulated on having secured her services.

Valuable Matter Held Over.

Owing to the tax upon our space in this issue, by the numerous reports of conventions and shows, it was necessary to hold over a large number of useful questions and answers, as well as several seasonable articles, that may be looked for in Jan. 15th issue.

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

GARDEN AND ORCHARD.

Annual Meeting of the Ontario Fruit Growers' Association.

It may fairly be said that the annual meeting of the Ontario Fruit Growers' Association, held at Whitby on the 5th and 6th inst., was one of the best in the history of the Association. The burning questions of finding means to prevent the fraudulent packing of fruit, better transportation facilities, better rates, how to deal with the San José scale, and others of more or less importance, roused such an enthusiasm in the speakers that probably never before in the history of the Association have these subjects met with such earnest attention as they did at this meeting. The constitution of the Association, which provides for the appointment of thirteen directors, representing thirteen districts in the Province, is a very good one, as when these men come together, as they did at this meeting, all sides of a problem can be discussed and better conclusions drawn.

The question of how to prevent dishonest packing of apples received, perhaps, more attention than any other subject. During the past few years dishonest packing has become so prevalent in Ontario that Ontario apples are fast losing the high place they hitherto held on the markets of Great Britain, and prices are very uncertain in consequence. In a paper read by Mr. A. H. Pettit, Grimsby, Ont., entitled "How Can We Prevent Trickery in Packing Apples," many excellent suggestions were made as to how this might be done. Mr. Pettit showed clearly by accurate calculations that it would pay a man who had, say, 300 barrels of apples, to grade these, putting the best together and selling the poor apples for what they would bring. He was of the opinion that the barrels should be branded in such a manner that when a barrel was sold there would be a practical guarantee of what it contained. In the discussion which followed there was weighty evidence to show that dishonest packing rested, in the majority of cases, with the packer and not with the grower. In his address on "The Commerce in Large Fruits," Prof. Robertson opened the eyes of many of those present as to the large proportion of dishonestly packed fruit which was shipped to Great Britain. He suggested that steps should be taken by the Association to remedy the evil of dishonest packing by obtaining, if possible, legislation which would make it compulsory to have every barrel that was shipped branded with the grower's and packer's names, the name of the variety and its size in inches. A resolution in favor of this suggestion was passed by the meeting, and a committee appointed to look into the details necessary, and if possible obtain legislation.

Prof. Robertson said that the fact that apples arrived on the British markets in poor condition was not altogether due to poor transportation facilities. Many barrels which were examined at Montreal, St. John, and Halifax, before being shipped to England, were slack and wet, thus showing that either the packing had been carelessly done or that the fruit had gone bad by the time they reached these ports. He said that better facilities for cold storage were being arranged for on the steamers, and smaller compartments would be used in the future. The trial shipments of early apples, pears, and peaches resulted in fair net returns to the shippers in most cases. Peaches were not as satisfactory as the other fruits, but the Alberta variety brought good prices and carried best of any varieties shipped. No package of fruit shipped to Great Britain should be less than forty pounds. The barrel is still the popular package for winter apples. As many apples as possible of the same variety and quality should be shipped in a consignment to obtain the best prices. The report of the committee on ocean and railway transportation was presented by Mr. W. H. Bunting. The only improvement in rates that they had been able to obtain was on grapes, the reduction in rates giving the shippers from ten to twelve dollars more per carload.

The addresses of Dr. Wm. Saunders were listened to with much interest. His efforts in hybridizing apples in order to produce varieties which would withstand the severe climate of Manitoba and the Northwest Territories have been rewarded with very interesting results. Although a large number of varieties of apples have been tested at the Experimental Farm at Brandon and Indian Head, none of these have produced fruit, and what do survive kill back to the snow line every winter. A small Siberian crab (*Pyrus baccata*) is, however, perfectly hardy, and has already produced fruit. What Dr. Saunders has been trying to obtain by hybridizing is a tree which will be quite hardy but will bear larger fruit and fruit of better quality than the Siberian crab, which is quite small and very astringent. Of many hundred young trees of hybrid origin, having *Pyrus baccata* as their female parent, which are growing at the experimental farms, 36 fruited this year at Ottawa, the seed having been planted four years ago. Five of the largest of these were of such promise that they have been named. Two of the largest, which are called respectively Charles and Novelty, are nearly as large as the Tansendant crab, and are very much superior in quality to the small Siberian crab. If these apples prove hardy in the Northwest an inestimable boon will have been bestowed on the people there. As there are several hundred trees yet

to fruit, the chances are that some apples of still better size and quality will be produced.

In his address on "Preparations for a Display of Canadian Fruits at the Paris Exposition," Dr. Saunders said that a very fine collection of fruit had been preserved with fluids in bottles, more than 1,700 having been brought together from all parts of the Dominion. This would help to make a good display at Paris before the fresh fruit of 1900 arrived. Provision had been made to hold a large number of cases of this year's apples in cold storage, which would be sent to Paris in time for the opening of the Exposition.

The address by Mr. Geo. T. Powell, Ghent, N. Y., a prominent fruit-grower there, and formerly Secretary of Agriculture for the State of New York, was very interesting and instructive. Any one who had not previously known Mr. Powell could readily see by the way in which he presented his subject, on "The Importance of Producing More High-grade Fruit," that he was an exceptionally intelligent man, and one who made a success of whatever he undertook. During the past ten years Mr. Powell has given special attention to the effect of selection in propagating and growing fruits. He has had particularly striking and gratifying results in top-grafting the King apple on Northern Spy stock. He first selected his scions from trees which had the best characteristics as regards habit of tree, vigor, and productiveness. By this means he was able to produce a good crop of King apples three years after top-grafting. He has also been able to produce flower buds on peach trees which had only been planted one and one-half years, by his methods of selection and high culture. He believes in selecting scions from bearing trees for top-grafting. His method of cultivating his orchard is to begin as early in the spring as possible, and cultivate frequently until about the middle of July, when he sows crimson clover, which grows up and acts as a catch crop in the autumn and a cover crop in the winter. It is plowed under each spring. He does this annually. He has found that after three crops of clover the humus in his soil has very much increased, the water-holding capacity of the soil has almost doubled, and that 1,350 lbs. more nitrogen per acre is in the soil thus treated than in that where no clover is grown. By his practice he is able, even in an exceptionally dry time, to get a fair growth on his trees, and good-sized fruit.

There was considerable discussion on the San José scale, and, judging by some of the speakers' remarks, there was a feeling of regret that the Act compelling the destruction of the scale had been suspended. The good work which the Government had done in endeavoring to stamp out this pest was endorsed by the meeting. An interesting account was given by Mr. Fisher, Freeman, Ont., of how the scale had been introduced into the Eastern United States and Canada. He said that he had not been able to find the scale breeding on forest trees, even where it seemed certain that it had passed from one orchard to another, between which forest trees were growing. In connection with a resolution approving of the action of the Department of Agriculture in taking means to stamp out the San José scale, a committee, consisting of Messrs. Murray Pettit, W. M. Orr, Robt. Thompson, G. E. Fisher, Jos. Tweedie, E. D. Smith, E. Morris, and W. H. Burt, was appointed to confer with the Hon. Minister of Agriculture.

Mr. W. M. Orr read a very favorable report on the results of his spraying experiments during the past year, and Mr. E. G. Edwards, Q. C., Peterborough, Ont., proved the great advantage of spraying by giving a history of how his orchard, which produced little good fruit at first, is now giving him good crops of fine fruit. Mr. W. T. Macoun read a paper on "Some Results of Experiments in Spraying at the Central Experimental Farm in 1899." In carrying on experiments to determine if whitewashing trees prevented the swelling of the buds, he discovered that on the trees thus sprayed the oyster-shell bark louse was almost all destroyed. Experiments are being conducted at the farm this winter to throw further light on this question.

In a paper on "Beautifying Country Homes," Prof. Hutt expressed in a very clear and concise manner how it would be possible to make our homes much more attractive than they are. A lawn, some flowers and shrubbery properly arranged, with trees in the background, and paths and roads, well made and judiciously placed, would change an otherwise unattractive house and grounds to one much more homelike.

"Fruits Hardy Along the St. Lawrence" was the subject of a paper read by Mr. W. A. Whitney, Iroquois, in which he showed that while plums and pears did not succeed very well, apples of many kinds could be grown to perfection, while small

fruits did particularly well. Mr. E. C. Beaman, Newcastle, read a paper on "Pears for the Amateur and Professional Grower." Perhaps there is no one in Canada so well posted on pears as Mr. Beaman. His list of best pears for market was: Clapp's Favorite, Bartlett, Duchess Precoce, Howell, Goodale, Bosc, Anjou, Kieffer, and Winter Nelis. For the amateur: Dayenne d'été, Otte, Clapp's Favorite, Tyson, Bartlett, Sechel, Sheldon, Bosc, Lawrence, Dana's Honey, Winter Nelis, Josephine, and Jaminette, covering the season in the order named.

Mr. J. I. Graham, Vandeleur, had a paper on "Top-grafting and Irrigation." His experience in top-grafting had been very successful, and he advocated it strongly. Where he irrigated his orchard he had better fruit.

A conservatory at small cost is quite possible, judging by a paper read by Dr. Harrison, of Keene, Ont. For from \$80.00 to \$100.00 a very useful one could be built.

There were other addresses, but space will not permit of mentioning them here.

The following officers were elected:

President, W. M. Orr, Fruitland.

Vice-President, G. C. Caston, Craighurst.

Directors—W. H. Whitney, Iroquois; R. B. Whyte, Ottawa; Harold Jones, Maitland; W. W. Boulter, Picton; Thos. Beal, Lindsay; Elmer Lick, Oshawa; Murray Pettit, Winona; A. M. Smith, St. Catharines; Jas. S. Scarff, Woodstock; J. I. Graham, Vandeleur; T. H. Race, Mitchell; Alex. McNeil, Walkerville; C. L. Stephens, Orillia.

Auditors—A. H. Pettit, Grimsby; Geo. T. Fisher, Freeman.

The report showed an expenditure of \$6,706.89, leaving a balance of \$635.51.

POULTRY.

Toronto Poultry Show.

The Toronto Poultry Association, which has a strong membership of breeders residing in or near

parcels by the express companies the week before Christmas, they are not able to handle the birds destined for the exhibition as promptly as they otherwise would.

While the Barred Plymouth Rock class was so good that it is almost invidious to pick out any particular bird, yet the cockerel shown by J. E. Bennett, Toronto, deserves special mention. This bird won the American Plymouth Rock Club's special prize of a silver cup. The other prizewinners in this class were: A. H. Lake, Toronto; Henderson & Billings, St. Mary's; J. S. Jeffery, St. Catharines; Thos. Brown, Durham; McCormack & Millard, Rockton; and R. Thompson, Toronto.

The White Rock cock was also an extra good one. He was shown by Barker & Muir, Weston, who also owned the winning cockerel and pullet; W. H. Bessey, Coleman, having the best hen. In Buffs, C. J. Daniels, Toronto, won for cock and second for hen; J. Bedford, Toronto, and F. C. Hare, Whitby, winning most of the other prizes.

The Wyandotte classes, as mentioned above, were extra strong. Leghorns, Games, Minorcas, Dorkings, and Polands, especially the latter, were very good. Light Brahmans were shown by Dr. Hutton, Welland; Barker & Muir; C. J. Daniels, Toronto; Dentonia Farm, and others. There were only a few Dark Brahmans present, M. T. Bane, Tilsonburg, supplying nearly all. Buff Cochins were entered by Dr. Bell, Toronto, and C. Stewart, London; and Partridge by L. Pequegnat. L. Corcoran, Stratford; A. McDougall, and others had Silver-Gray Dorkings; the Dentonia Farm, and E. J. Dewey, Toronto, Langshans; while R. Durston, Mrs. Shales, and S. Colwell were strong in Black Minorcas.

Geese, turkeys, and ducks were above the average. O'Brien & Colwell, Paris, were strongest in geese; A. McDougall, Milton, in Bronze turkeys; and Thos. Brown, Durham, in Whites. The principal exhibitors of ducks were John Colson, Guelph, in Rouens, and O'Brien & Colwell, in Aylesbury, Pekins, etc.

M. T. Burn, Tilsonburg, was the largest exhibitor of birds in the whole show. Dentonia Farm and C. J. Daniels also made a big display in various classes. The latter, in addition, had a full display of all kinds of poultry supplies, and a Cyphers incubator in full working order (the only one in working order during the show), which hatched out a very large number of strong, healthy-looking chicks. One American firm displayed incubators.

In addition to other duties, Mr. Daniels acted most efficiently as Superintendent of the Show, and Dr. Bell made an excellent Secretary. A liberal list of prizes was provided, among which was the Governor-General's challenge cup, and a beautiful trophy presented by Senator Cox, of Toronto. A number of valuable pieces of silver were donated as special prizes, and each class had a special sweepstakes prize offered to winners.

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.]

Veterinary.

NETTLE RASH.

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

[Your mare has nettle rash, due to imperfect digestion. Give her a physic of raw linseed oil, one quart; spirits turpentine, two ounces, in the morning before any food is allowed. Withhold all solid food for twenty-four hours previous to giving physic, and until it operates freely on the bowels; allowing only bran mashes, and return to solid food gradually. Exercise in twenty-four hours if the oil does not physic freely, after which give one-half ounce hyposulphite of soda dissolved in hot water and mixed in feed twice daily for two weeks, and one of the following powders in feed three times daily: Bicarbonate of soda, 1 ounce; powd. gentian, 1 ounce; powd. nitrate of potash, 1½ ounces; powd. nux vomica, ½ ounce. Divide into twelve doses. Do not purge if she is in foal. Feed bran with her oats. Boiled roots, oats, etc., will be best suited for her until she gets all her teeth.]



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

Toronto, held a very successful exhibition in that city from December 18th to 22nd. The attendance was not very large, but, nevertheless, the show was a financial success, and that without any assistance from the Government. The entries were only about 100 fewer than there were at the Provincial Poultry Show held in Toronto in 1898, in spite of the fact that there were hardly any entries from London and some other points, from which a large contingent is generally expected. In fact, had London and some other places made their usual list of entries the total would have been several hundred in excess of last year's Provincial. Among those that entered were American fanciers.

A very satisfactory feature was the large number of birds entered in the classes that may be called "practical" as opposed to fancy. Of Barred Plymouth Rocks, which was the class boasting of the largest entry, there were over 100 birds. Next in order of numbers came Buff Leghorns, White Leghorns and Brown Leghorns, all these classes being above the average. After these were the different varieties of Wyandottes, which the American expert judge, Drevenstedt, said were the best classes of Wyandottes he had ever seen or handled in any exhibition.

This association also has the honor of being the first on this continent to introduce classes for novices at an exhibition. These classes were so successful that the Association has determined to make them a fixture at future exhibitions. The definition of a novice is as follows: "A person or bird that has not won a first prize at any time, in any variety, at the Toronto Industrial, Western Fair, London, Ottawa, Sherbrooke, or at any winter poultry show." Birds entered in the novice classes could compete in the regular classes, if their owners wished, by paying the extra fee.

In view of the satisfactory results of this exhibition, the Association has determined to hold an annual show, but will hold it a week earlier next year, as, owing to the increased business done in

INDIGESTION IN CALF.

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

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

FEEDING CHOP WET OR DRY.

D. K. S. S., Norfolk Co., Ont.—“In feeding milking or fattening cows, are better results obtained from feeding it wet or dry?”

[In the preparation of food for stock, two important considerations are: that it be made as palatable and digestible as possible, without undue labor or expense. It therefore pays, we believe, to have grain ground fairly fine and given mixed with cut feed, mixed with pulped roots or silage, so that the whole mass will be relished and well masticated. Apart from moistening in this way, the trouble of wetting the chop seems profitless trouble. Prof. Dean, of the Agricultural College, tested this matter with fourteen cows over a period of two weeks, the result of which shows that feeding cows grain in the form of slop does not increase the milk flow or improve its quality over feeding the same chop dry. While we have no record of moistened feed having been tested for fattening cows, we feel safe in predicting that no beneficial results would follow such a practice. We will be pleased to hear from readers who have any pointers to offer upon this subject.]

Miscellaneous.

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

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

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

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

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

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

MILK FEVER CARCASS.

SUBSCRIBER, Lincoln Co., Ont.—“Will you please give symptoms and treatment of milk fever? 2. Also, is the beef of a cow having milk fever fit for human food? 3. If not, what is the penalty for killing and selling the beef?”

[See article on page 703, Christmas number (December 15th) of the FARMER'S ADVOCATE.

2. No. 3. The penalty under the Medical Health Act of '97, Revised Statutes of Ontario, is a fine of from \$5 to \$100 and imprisonment in the discretion of the justice of the peace convicting.]

KEROSENE EMULSION FOR LICE.

A. J. McG., Huron Co., Ont.—“I see in the ADVOCATE of Nov. 15th, two or three farmers giving their experience on feeding cattle, and also putting kerosene emulsion on the cattle for killing vermin. I would like to know how the emulsion is mixed, or do they buy it ready mixed, as I would like to try it on my cattle? Kindly let me know in the ADVOCATE.”

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

MARKETS.

FARM GOSSIP.

P. E. Island.

Almost Christmas, and still very mild weather. Harbors all open. No snow on the ground; plows have been at work only a week back. Stock wintering well; very little diminution in supply of milk yet at the winter dairy stations. Most of the creameries have sold their fall and winter make up to January first for 20c. per pound.

The Co-operative Cheese Companies are paying off their patrons for the season at about an average of 79 cents per hundred pounds for milk.

All dairymen are pleased with the result of their cheese-making, and it is certainly the most profitable branch of the farmers' business this year. Most of our cheese factories are run by the butter-fat test, plus 2%. This method is giving pretty general satisfaction. Some patrons are getting as much as 90 cents per hundred for milk.

There is considerable beef being stall-fed here, and a good many fat cattle are now being slaughtered for Maritime Province markets.

Hogs are being marketed in great numbers just now. A greater amount of carcass than usual is being sent forward to St. John and Halifax. The preference is for the heavier weights.

Wheat is being threshed out now, and is under an average yield. The season was too wet for it to do its best.

Oats that were not too badly shaken with gales in harvest are turning out well.

Prices.—Oats, 25c.; potatoes, 16c. to 20c.; beef, 5 to 6 cents dead weight; sheep and lambs about all sold up; sheep skins, 65c. to 70c.; hides, 7c.; creamery butter, 20c.; dairy, 18c. to 20c.; cheese all sold out of first hands and shipped out; live hogs, top price 4c.; lighter weights, 3c. to 3 1/2c.

The Farmers' and Dairymen's Association will hold a two days' meeting at Marshfield, beginning January 18th. Mr. Gilbert, poultry manager at the Experimental Farm, Ottawa, will be present, and speak on poultry-raising. This Association has also arranged a number of meetings, that Mr. Gilbert will address, in different parts of the Island. We have no Farmers' Institute system here as in most of the other Provinces. Quite a large collection of grains and fruit has been made here for the Paris Exhibition. The P. E. Island Fruit Growers' Association will hold their annual meeting about January 25th. An effort is being made to have Dr. Fletcher, from the Experimental Farm, present. The new Condensed Milk Factory has begun operations in Charlottetown. It has a capacity of 50,000 pounds of milk daily. It is now receiving 4,000 lbs. daily, and the supply will be increased as the hands learn their business. Twenty-five hands are employed at present, but when working at full capacity fifty will be employed. Mr. Oakes, a man of large experience, will superintend the factory, and Mr. Lockhart, of New York, will be manager and salesman. They expect to find a market for their product in Canada. The Company will have an inspector employed, who will make weekly visits to the patrons, to advise them as to the proper care of cows and milk.

December 22nd, 1899.

Carleton Co., Ont.

Although the weather has been very fine, with perhaps more rain than usual, winter is here. The cattle are all in their winter quarters, and although the corn and root crop was not all that might be desired, there is an abundance of feed—more straw than can be made use of. The cheese have been all shipped, leaving the farmers well satisfied with the returns. In some factories a net profit of 85 cents per cwt. of milk was realized by the patrons. Beef cattle, especially heavy ones, are scarce, and strange to say, the demand seems to be in proportion. Sheep and lambs were in good demand, and prices were paid for them. The farmers prefer selling by weight, as they get all that is in their animals. Mr. James Carson, of Carleton Place, sold his flock of lambs for 34 cents per pound, bringing the handsome sum of \$4.57 per head, some of them weighing 155 pounds. The demand for pork is getting a little better, 5 to 5 1/2 cents per pound being paid for dressed hogs on the Ottawa market. Butter is scarce, and sells at from 22 to 26 cents per pound.

Farmers' Institute meetings have been well attended and very profitable, as some very valuable addresses were delivered by Mr. McMillan, on “Feeding cattle and hogs,” “How to build a silo,” and a very appropriate one on “Why boys leave the farm.” Miss Rose, of O. A. C., was present, and gave some practical as well as useful hints on buttermaking, household economy, dress, its influence, health and beauty.

December 19th.

Oxford County.

We have had a run of splendid fall weather, even in the month of December, and there has been a great deal of work done on the farm that would generally have been left until the spring. We have been enabled to make some improvements in that we have contemplated for years, but had to postpone indefinitely for want of the opportunity. We have now during the last few days got a taste of winter weather, and there is some prospect of sleighing in the near future. Stock are doing moderately well, but are going through the fodder rather lively. Our straw is being consumed pretty fast, and at this rate we won't have much to litter the pigs with during the winter months. The cheese is nearly all cleared out, and is now rising in price. Some few factories are still making cheese, and some have started their butter plant and are making butter, and quite a number are closed down altogether. Not many factories are fitted up warm enough to make either cheese or butter very profitably in winter, and sheds ought to be provided for the horses, which have to stand out, especially in buttermaking, waiting to get the separated milk.

Live hogs are coming up in price again, and those farmers who are making preparations to make additions or improvements will have to pay a much advanced rate. A great many farms have changed hands this fall, at prices varying all the way from \$40 to \$70 per acre, according to improvements, buildings, quality of land, and the locality.

D. L.

Farmers' Institute Meetings in Eastern Ontario.

In the counties of Dundas, Stormont, Cornwall, Glengarry, Russell, and Prescott, Ont., the early Farmers' Institute meetings were well attended by interested audiences. The delegates were Hy. Glendinning, Manilla, Ont., and W. C. Shearer, Bright, Ont. The subjects most called for were: “Grasses for Permanent Pasture,” “Growing Corn in Hills or Drills for the Silo,” “Feeds and Feeding,” illustrated with charts; “Building up a Farm,” “Cost of a Dairy Herd,” “The Hog and Export Bacon Trade,” “Cost of Cementing Stable Floors,” “The Farmers' Small Fruit and Vegetable Garden,” “Raising Pure-bred Poultry on the Farm,” “The Export Poultry Trade.” At Vankleek Hill a two-day meeting was held and the interested crowds numbered up into the hundreds, and the officers declared that never since their inception, ten years ago, have they held such large and profitable meetings.

W. C. S.

Huron County, Ont.

One week of frost is about all the winter we have had. The present shower is very acceptable. Creeks are low or dried up; many wells are dry, and some farmers are hauling water for use and driving their cattle every day for water, which seems to be scarcer than in the heat of summer. Before last week's snow and frost the fall wheat in some sections was beginning to show considerable yellow in the under leaves, and appeared

to be going back. Owing to the lack of rain the roads are in excellent shape; some road beats have experimented by doing the statute labor in September, and from present appearances the work done in the fall gives much the better results. West Huron has had Miss Rose for a series of Farmers' Institute meetings. She is a good, unaffected speaker, and should she ever come here again she will be well received. The large percentage of women at the meetings was gratifying. The Institute is becoming more popular each year.

The markets are: Fall wheat, 64c. and 65c.; oats, 25c.; rye, 40c. and 45c.; barley, 35c.; peas, 56c.; butter, 15c. and 16c.; eggs, 14c. and 15c.; hay, \$5.50 and \$6.00; potatoes, 25c.; ducks, 50c. and 60c. per pair; geese, per lb., 5c.; turkeys, 7c. and 8c.; pork, \$3.75; dried apples, 5c.; bran, per ton, \$12.00; shorts, \$16.00.

F. C. E.

Chatty Stock Letter from Chicago.

FROM OUR OWN CORRESPONDENT.

Following table shows current and comparative live stock prices:

Table with columns: Live Stock, Extreme prices now, Top Prices (Two weeks ago, 1898, 1897). Rows include Beef cattle, Hogs, Sheep, and Lambs.

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

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

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

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

Toronto Markets.

The usual reaction is in evidence; very little stock on offer, but the quality is improving. Feeders say that there is no lack of feed, but the right kinds of cattle are difficult to obtain. The mild weather made butchers cautious, many having two weeks' supply laid in store. This caused a slump in prices, and many drovers went home with less money than they paid for their cattle. One dealer explained that he lost 40c. per cow. On Tuesday, Dec. 26th, there were no deliveries of live stock on the market and no business done.

Export Cattle.—This trade is in a tantalizing condition; the British market is stronger, but cattle cannot be shipped. The price of freight is against them; 70 shillings per head is almost prohibitory. Choice export cattle weighing 1,270 lbs. average sold at \$5.10 per cwt. Medium to light cattle sold at \$4.25 to \$4.75 per cwt.

Butchers' Cattle.—Among the lot of Xmas cattle brought in last week was the first-prize steer at Guelph Fat Stock Show; weighed 1,600 lbs.; fed by Mr. James Ferguson, Wellington. One heifer and steer fed by Mr. G. Clayton, Lather, Ont., the steer taking third prize at Guelph for best 2-year-old grade. Five of these cattle weighed 1,460 lbs. average, and were sold by Mr. Shortreed at \$7.25 per cwt., the top price for the year. Of these fine cattle two were one year old and three two years old. One heifer weighed 1,500 lbs., one steer two years old weighed 1,400 lbs., and all were purchased by Mr. I. Harris for market show. One heifer, second prize in class, and fed by the F. W. Stone Estate, Guelph, weighed 847 lbs., when dressed, weighed 811 lbs.; was exhibited at Messrs. W. Harris, on St. Lawrence market, Jarvis St. Common butchers' cattle sold at \$3.10 to \$3.30; inferior rough sold at \$2.60 to \$2.90 per cwt.

Bulls.—Heavy export bulls sold at \$3.80 to \$4.75 per cwt.; light export sold at \$3.25 to \$3.50 per cwt.; bulls for feeding fetched from \$2.75 to \$3.00 per cwt.

Feeders.—Heavy feeders, choice, well-bred steers, weighing from 1,050 lbs. to 1,200 lbs., were firm at from \$3.75 to \$3.85 per cwt.; rough steers sold at \$3.40 to \$3.60 per cwt.

Stockers.—Stockers for Buffalo were in good supply; yearlings, 500 to 600 lbs. weight, at \$2.60 to \$2.75 per cwt. Black and white, same weight, sold at \$2.00 to \$2.60 per cwt.

Sheep.—Market quite firm at steady prices, at \$3.00 to \$3.40 for choice; butchers' sheep at \$2.00 to \$2.50 per cwt. Mr. W. Dun bought 100 sheep at \$3.25 per cwt., and 75 lambs at \$3.80 per cwt. average.

Lambs.—Prices firm on choice lots of ewes and wethers at \$4.25 to \$4.40 per cwt. One spring lamb realized \$7.00, bought for the Temple Cafe by our old friend, Mr. T. Davey.

Milk Cows.—A few very choice cows wanted; about ten on offer at prices ranging from \$25.00 to \$50.00 each.

Hogs.—Heavy deliveries; prices steady on choice; singers weighing not less than 160 lbs. and not more than 200 lbs. sold for \$1.50 per cwt. The price on thick fats fell to \$3.75 per cwt.; this is the result of keeping hogs four weeks longer than necessary, as all coming over 200 lbs. are culled as thick fat. This brought forth a vigorous kick from drovers, who contend that the market is too exacting.

Table with columns: Live Stock, Current Price, Comparative Price. Rows include Export cattle, Butchers' cattle, Feeder heavy, Stockers, Milk cows, Hogs, Sows, and Stags.

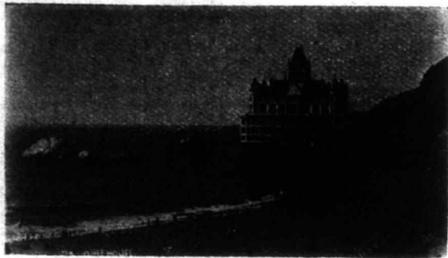
December 28th, 1899.



Travelling Notes.

SAN FRANCISCO.

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



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



and flower-beds. Beautiful statues are everywhere. There is a lovely grove of trees and a fine grass lawn, where stands Mr. Sutro's residence. As can well be imagined, the aspect from these Heights is most magnificent and extends miles and miles. A fine view of the grounds can be had from the rotunda, reached through a long passageway between rows of trees. Then there are the Sutro pleasure grounds, with Firth wheel, mystic maze and haunted swing, etc., all relics of the great Midwinter Fair. The Sutro baths are the most superb bath houses in the world. On the first floor is a collection of curiosities from all parts of the world, including "Ben Butler," the largest sea lion known. He was monarch of the rocks, but was one morning found dead on the beach. His weight was 2,000 lbs. Potted flowers and trees are all over the building. On the main floor, or upper balcony, is a restaurant, where you can get a light lunch quite reasonably. On this floor the bathing suits are obtained, also there are various amusements, photographs, etc.

The main tank is on the western side of the building and contains the sea water in its natural state and is four to ten feet deep. Other tanks are heated to various degrees. One is especially reserved for ladies and children. There are trapezes, swinging rings, spring boards and everything suitable for aquatic gymnastics. The baths are 490 feet long and 25 feet wide, and hold 1,804,962 gallons of water. These numbers have nearly taken our breath away, so we'll only just add that 100,000 feet of glass covers roof and sides, 270,000 cubic feet of concrete in building and tanks generally, 517 dressing rooms, besides club-rooms and shower-baths. Then, to wind up, there is a huge breakwater 400 feet long, 25 feet wide at top and 20 feet high, which protects the baths on the west from encroachments by the sea and another breakwater affords protection at the end. How is that for a bath? The London Sulphur Baths and other celebrated bathing resorts will have to look to their laurels.

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

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

UNCLE TOM'S DEPARTMENT.

MY DEAR NEPHEWS AND NIECES,—

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

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

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

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

Your loving, UNCLE TOM.



The Dragon Tamers.

(Continued from page 671.)

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

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

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

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

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

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

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

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

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

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

"I do a little," said the mother.

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

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

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

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

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

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

"Who's there?" said the dragon.

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

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

"There's a lame giant in the town. He wants you."
 "Does he?" said the dragon, showing his teeth.
 "If only I were out of this!"
 "If we let you loose you might manage to run away before he could catch you."
 "Yes, I might," answered the dragon, "but then again I mightn't."
 "Why, you'd never fight him?" said Tina.
 "No," said the dragon, "I'm all for peace, I am. You let me out and you'll see."

So the children loosed the dragon, and he broke down the end of the dungeon and went out, only pausing at the forge door to get the blacksmith to rivet his wing. He met the lame giant at the gate of the town, and the giant banged on the dragon with his club as if he were banging an iron foundry, and the dragon behaved like a smelting works—all fire and smoke.

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

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

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

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

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

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

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

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

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

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

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

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

[TO BE CONTINUED.]

The Quest.

There once was a restless boy
 Who dwelt in a house by the sea,
 Where the water danced for joy
 And the winds were glad and free;
 But he said, "Good mother, oh! let me go;
 For the dullest place in the world, I know,
 Is this little brown house,
 This old brown house,
 Under the apple tree."

"I will travel east and west;
 The loveliest homes I'll see;
 And when I have found the best,
 Dear mother, I'll come for thee.
 I'll come for thee in a year and a day,
 And joyful then we'll haste away
 From this little brown house,
 This old brown house,
 Under the apple tree."

So he travelled here and there,
 But never content was he,
 Though he saw in lands most fair
 The costliest homes there be.
 He something missed from the sea or sky,
 Till he turned again with a wistful sigh,
 To the little brown house,
 The old brown house,
 Under the apple tree.

Then the mother saw and smiled,
 While her heart grew glad and free.
 "Hast thou chosen a home, my child?
 Ah, where shall we dwell?" quoth she.
 And he said, "Sweet mother, from east to west,
 The loveliest home, and the dearest and best,
 Is a little brown house,
 An old brown house,
 Under an apple tree."

Our Coming Defenders.

"THE SOLDIERS THREE."

(With compliments to Mr. Rudyard Kipling.)

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

REFRAIN:

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

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

Repeat refrain—March, my brothers, etc.

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

Repeat refrain—March, my brothers, etc.

L'ENVOI.

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

FELIX.

THE QUIET HOUR.

A Happy New Year.

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

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

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

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

I do wish that your barns may not be big enough to hold your crops. God has promised that very kind of prosperity to those who obey the command, "Honor the Lord with thy substance, and with the first fruits of all thine increase." Are you doing that? Then listen: "So shall thy barns be filled with plenty." He has promised this very blessing to all who bring the tithes into His storehouse; saying, "I will open you the windows of heaven, and pour you out a blessing, that there shall not be room enough to receive it."

Whether such a gift brings real prosperity or not depends on the way it is accepted and used. If a rich man lays up all his treasure on the earth he is a fool, undoubtedly. If riches harden his heart and make him selfish, then it is well for him if God in His mercy take them away.

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

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

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

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



OUR COMING DEFENDERS.
 EDISON, ARCHIE AND LORNE MACQUARRIE, SAULT STE. MARIE, ONT.

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

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

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

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

His words of commendation: "Well done, good and faithful servant!" Do you think the greatest reward for a holy life is the gift of *more holiness*? Or would you rather have earthly riches and worldly prosperity? If you really think these lesser gifts are worth more than the higher ones, you will certainly have to learn your mistake; that is, if your soul is to grow at all. God may teach you by giving them, and so proving that they never did and never will satisfy the hunger of the soul; or He may teach you by withholding them until you learn something of the value of His richer gifts. Either way, He knows best.

"A happy New Year! A glad New Year!
Is the wish of my heart for you;
May that "perfect love which knows not fear,"
Be our motto the whole year through,
Come pleasure or pain, come good or ill,
Come life or death this year,
Drink deep to the dregs the Master's will,
He is with thee—thou need'st not fear!" —HOPE.

On New Year's Resolutions.

Mr. Hennessy looked out at the rain dripping down in Archey Road, and sighed, "A-ha, 'tis a bad spell iv weather we're havin'."

"Faith, it is," said Mr. Dooley, "or else we mind it more thin we did. I can't remember wan day fr'm another. Whin I was young, I niver thought iv rain or snow, cold or heat. But now th' heat stings an' th' cold wrenches me bones; an', if I go out in th' rain with less on me thin a ton iv rubber I'll pay dear fr' it in achin' jints, so I will. That's what old age means; an' now another year has been put on to what we had before, an' we're expected to be gay. 'Ring out th' old,' says a guy at th' Brothers' School. 'Ring out th' old, ring in th' new,' he says. 'Ring out th' false, ring in th' thue,' says he. It's a pretty sintimint, Hinnessy; but how ar-re we goin' to do it? Nawthin'd please me better thin to turn me back on th' wicked an' inglorious past, rayform me life, an' live at peace with th' wurruld to th' end iv me days. But how th' divvie can I do it? As th' fellow says, 'Can th' leopard change his spots, or can't he?'"

"You know Dorsey, iv coorse, th' cross-eyed May-o man that come to this country about wan day in advance iv a warrant fr' sheep-stealin'? Ye know what he done to me, tellin' people I was caught in me cellar poorin' wather into a bar! Well, last night says I to meself, thinkin' iv Dorsey, I says: 'I swear that henceforth I'll keep me temper with me fellow-men. I'll not let anger or jealousy get th' better iv me,' I says. 'I'll lave off all me old feuds; an' if I meet me inimy goin' down th' sthreet, I'll go up an' shake him be th' hand if I'm sure he hasn't a brick in th' other hand.' Oh, I was mighty compliminty to meself. I set be th' stove dhrinkin' hot wans, an' ivry wan I dhrunk made me more iv a pote. 'Tis th' way with th' stuff. Whin I'm in dhrink, I have many a fine thought; an', if I wasn't too comfortable to go an' look fr' th' ink-bottle, I cud write pomes that'd make Shakespeare an' Mike Scanlan think they were wur-rkin' on a dredge. 'Why,' says I, 'carry into th' new year th' hathreds iv th' old?' I says. 'Let th' dead past bury its dead,' says I. 'Tur-rn ye'er lamps up to th' blue sky,' I says. (It was rainin' like th' divvie, an' th' hour was midnight; but I give no heed to that, bein' comfortable with th' hot wans.) An' I went to th' dune, an', whin Mike Duffy come by on number wan hundherd an' five, ringin' th' gong iv th' ca-ar, I hollered to him: Ring out th' old, ring in th' new.' 'Go back into ye'er stall,' he says, 'an' wring ye'erself out,' he says. 'Ye'er wet through,' he says.

"Whin I woke up this mornin', th' pothry had all disappeared, an' I begun to think th' las' hot wan I took had somethin' wrong with it. Besides, th' lumbago was grippin' me till I cud hardly put wan foot before th' other. But I remembered me promises to meself, an' I went out on th' sthreet, in-tindin' to wish ivry wan a 'Happy New Year,' an' hopin' in me hear-rt that th' first wan I wished it to'd tell me to go to th' divvie, so I cud hit him in th' eye. I hadn't gone half a block before I spied Dorsey acrost th' sthreet. I picked up half a brick an' put it in me pocket, an' Dorsey done th' same. Thin went up to each other. 'A Happy New Year,' says I. 'Th' same to you,' says he, 'an' manny iv thim,' he says. 'Ye have a brick in ye'er hand,' says I. 'I was thinkin' iv givin' ye a New Year's gift,' says he. 'Th' same to you, an' manny iv thim,' says I, fondlin' me own ammunition. 'Tis even all around,' says he. 'It is,' says I. 'I was thinkin' las' night I'd give up me gredge again ye,' says he. 'I had th' same thought meself,' says I. 'But, since I seen ye'er face,' he says, 'I've concluded that I'd be more comfortable hatin' ye thin havin' ye fr' a frind,' says he. 'Ye'er a man iv taste,' says I. 'An' we backed away fr'm each other. He's a Tip, an' can throw a stone like a rifleman; an', Hinnessy, I'm somethin' iv an amachoor shot with a half-brick meself.

"Well, I've been thinkin' it over, an' I've argied it out that life'd not be worth livin' if we didn't keep our inimies. I can have all th' frinds' I need. Anny man can that keeps a liquor sthore. But a rale sthrong inimy, especially a May-o inimy,—wan that hates ye ha-ard, an' that ye'd take th' coat off yer back to do a bad tur-rn to,—is a luxury that I can't go without in me ol' days. Dorsey is th' right sort. I can't go by his house without bein' in fear he'll spill th' chimbley down on me head; an' whin he passes my place, he walks in th' middle iv th' sthreet, an' crosses himself. I'll swear off on anythin' but Dorsey. He's a good man, an' I despise him. Hers's long life to him."

Jealousy in the Choir.

Silvery-noted,
Lily-throated,
Starry-eyed and golden-haired,
Charming Anna,
The soprano,
All the singers' hearts ensnared.
Long the tenor
Sought to win her,
Sought to win her for his bride;
And the basso
Loved the lass so,
Day and night for her he sighed.

The demeanor
Of the tenor
To the basso frigid grew;
And the basso,
As he was so
Mashed, of course, grew frightened too.

Anna smiled on
Both, which piled on
To their mutual hatred, fuel,
So, to win her,
Basso and tenor
Swore they'd fight a vocal duel.

Shrieked the tenor
Like a Vennor
Cyclone howling o'er the plain;
Sang so high
To quite outvie
The basso, he split his head in twain.

Growled the basso
Till he was so
Low, to hear him was a treat;
Lower still he
Went until he
Split the soles of both his feet.

Charming Anna,
The soprano,
Mourned a week for both her fellows;
Then she wed the
Man who fed the
Wind into the organ bellows.

As His Mother Used to Do.

He criticised her puddings and he found fault with her cake; He wished she'd make such biscuits as his mother used to make; She didn't wash the dishes and she didn't make a stew, Nor even mend his stockings, as his mother used to do.

His mother had six children, but by night her work was done; His wife seemed drudging always, yet she only had the one; His mother always was well dressed, his wife would be so too, If only she would manage as his mother used to do.

Ah, well! She was not perfect, though she tried to do her best, Until at length she thought her time had come to have a rest; So when one day he went the same old rigmarole all through, She turned and boxed his ears, just as his mother used to do.

—Chicago Times.

The Meanest Man.

The meanest man in the world is the husband who placed his purse in a mouse trap so that his wife could not get it in the early morning without liberating a mouse.

Couldn't See the Joke.

"I was delivering a speech at the annual banquet of a St. George's Society in England," says Senator Chauncey M. Depew, "and in the course of my talk I casually remarked that if my jokes were not always appreciated by my British hearers at the moment they were sprung upon them, by the time the next yearly dinner came around they were sure to see the point. 'I don't think that's such a mighty funny thing to say,' growled a stolid, red-faced son of Johnny Bull, who sat opposite me at the table. He had broken in loudly and interrupted my flow of language. 'Oh,' I replied, before taking up the thread of my speech, 'that's all right, my dear fellow. You'll see the fun in it a year from now.'"

A Promising Young Rascal.

A boy was engaged in nocturnal apple stealing a short time ago, and was observed by the owner of the fruit, who, unnoticed by the young robber, placed a large stuffed dog at the foot of the tree and retired to watch.

The boy, about to descend, observed the dog, and then the fun commenced. He whistled, coaxed, threatened, but unavailingly, and, finally settled down to pass the night in the tree.

After some hours had passed, wearily enough to the lad, morning dawned, and the proprietor of the tree, coming from the house, asked how he came to be in the tree, to which the boy answered that he took it to save himself from the dog, which had chased him quite a distance.—Edinburgh Scotsman.

We recommend this true tale to the lady of fashion. A young lady walking down a lane met a village boy carrying in his hands a thrush's nest containing nestlings.

"You cruel boy," she cried. "Possibly the poor mother is at this moment fluttering near us, anguished by the loss of her defenceless young!"

"Oh, she don't care!" replied the boy, edging away. "She's on your 'at!"—London Outlook.

A little fresh-air waif was spending his first day in the country. When the cows came up in the evening to be milked, he went down to the barnyard with his host to see the operation. The cows were standing about placidly, and, as is their custom at that time of day, were contentedly chewing their cud. The boy watched the milkmaids at work, and his eyes dwelt with growing wonder at the ceaseless grind of the cows' jaws. At length he turned to his host and said: "Do you have to buy gum for all them cows?"

Puzzles.

[The following prizes are offered every quarter, beginning with months of April, July and October: For answers to puzzles during each quarter—1st prize, \$1.50; 2nd, \$1.00; 3rd, 75c. For original puzzles—1st, \$1.00; 2nd, 75c.; 3rd, 50c.]

This column is open to all who comply with the following rules: Puzzles must be original—that is, must not be copied from other papers; they must be written on one side only of paper, and sender's name signed to each puzzle; answers must accompany all original puzzles (preferably on separate paper). It is not necessary to write out puzzles to which you send answers—the number of puzzle and date of issue is sufficient. Partial answers will receive credit. Work intended for first issue of any month should reach Pakenham not later than the 15th of the month previous; that for second issue not later than the 5th of that month. Leave envelope open, mark "Printer's Copy" in one corner, and letter will come for one cent. Address all work to Miss Ada Armand, Pakenham, Ont.]

1—ACROSTIC.

- 1—A manly fellow.
 - 2—Disturbers of the peace.
 - 3—Those who ring bells.
 - 4—Shouting.
 - 5—Painters.
 - 6—Tires.
 - 7—Relationship.
 - 8—A hint.
 - 9—Well known.
 - 10—True.
- Primals down will spell
One whom "puzzlers" know quite well. M. N.

2—HALF-SQUARE.

- 1 to hold.
- 2 a bird.
- 3 a female relation.
- 4 a dove house (trans.).
- 5 malt liquor.
- 6 that is.
- 7 north (abr.). M. N.

3—RIDDLE.

A little word of letters three
Means land-locked water bright.
And yet, without a change at all,
It means to bark at night.
One letter change, a ruler sees.
In gorgeous armor dight. M. N.

4—TANGLEFOOT.

- Ex.—A sharp-pointed instrument is entangled with to be hold and becomes a small animal. Awl, see—weasel.
- 1—An animal of S. Africa is entangled with a part of its foot and becomes a part of itself.
- 2—A bird is entangled with a trench and becomes a weapon.
- 3—A sailor is entangled with condensed vapors and becomes a high officer of state.
- 4—A small animal is entangled with a morsel and becomes a cap worn by priests of R. C. church.
- 5—A metal point is entangled with luster and becomes a kind of war vessel.
- 6—A fish is entangled with part of a canine animal and becomes a bird. ROLLY.

5—DOUBLE ACROSTIC.

- 1—An ornamental stand.
 - 2—The office of a person deputed to execute business.
 - 3—A hostile incursion into a country.
 - 4—Indifference to religion.
 - 5—In Turkey, a placeman.
 - 6—A gleam.
 - 7—A trick.
 - 8—To foster.
 - 9—A fresh-water fish.
 - 10—A republic.
 - 11—Young people.
- Primals will name a great statesman and orator of eighteenth and nineteenth centuries.
Finals will name a great statesman and general of ancient Greece. ROLLY.

6—SQUARE.

- 1, Harmony; 2, beyond; 3, piece of beef; 4, angry; 5, a small mass of dough, baked. F. L. S.

Answers to Nov. 15th Puzzles.

- 1—Lament-amen-me.
- 2—Handel, Holland, Gluck, Verdi, Hall, Smith, Yule, Gillis, Doles, Himan.
- 3—10 bushels, 1 gal.
- 4—Circler, accuse, nestling, anatomize, decagram, indite, affusion, nourishment—Canadian regiment.

5— r e l a t e d 6—Message (mess sage).

e m e t i c
l e m o n
a t o p
t i n S— e c h o
e c c l o t
d h o n i
o t i s

- 7—Your son is backward in his lessons.
- 9—Spinach.
- 10—Drogheda.

SOLVERS TO NOV. 15TH PUZZLES.

Lizzie Conner, "Kit," "Arny 'Awkins," Nellie Fraser, "Diana," J. McLean, Jack & Jill, M. R. G., "Rolly."

ADDITIONAL SOLVERS TO NOV. 1ST PUZZLES.

"Diana," J. F. L., "Kit," Lizzie Conner, Pansy, J. McLean.

COUSINLY CHAT.

"Jack & Jill."—Your suggestion re Xmas puzzle came too late; will be glad to receive original puzzles suitable for any season, but we must get them in some time beforehand to appear in proper time.
"Williwaw."—I hope you will not forget again, but always send your answers in time.
Florence.—What a wee tot you are to be able to solve puzzles. Come often, little one.
Roy.—Welcome to this other coz., who does not tell his age, but I think he's a little chap.
Rolly.—How prettily you draw! I will send your puzzle in, but, as engraving is expensive work, it may not be used.
"Diana."—I think you are right about the rhombus, but as the original answer has been mislaid, I cannot be certain. Oh, no, "Diana," he is not a fraud by any means.
Cousins all.—I wish you were a glad New Year And homes well filled with Xmas cheer. A. A.

GOSSIP.

It is with deep regret that we chronicle the death of James Gaunt, Jr., of the firm of James E. Gaunt & Sons, St. Helen's, Ont., whose names have for many years been intimately associated with the Shorthorn cattle and Leicester sheep industry in Canada.

NOTICES.

Spratt's Patent, Limited, of 248 E. 56th St., N. Y., represented in Canada by F. Hughes & Co., Montreal; J. A. Simmers, Toronto, and John S. Pearce, London, advertise a full line of dog foods, washes and medicines manufactured by them.

The Ontario Business College, Belleville, has been for many years a very widely attended institution, and is experiencing a larger degree of prosperity than ever before.

The College is now in its thirty-first year, and for twenty-five years of that time it has been conducted by Messrs. W. B. Robinson and J. W. Johnson, F. C. A. (the mayor of Belleville).

Notable Dairy Exhibit.—Messrs. R. A. Lister & Co., of Montreal, made an excellent display of high-class dairy apparatus at the Ontario Provincial Fat Stock Show, London, Ont., December 12th to December 15th.

The firm turn out a hand machine of still larger capacity, which is capable of handling the milk from 50 cows, and, it is said, can be worked quite easily by a young man.

The special features in the construction of the "Melotte" are: Firstly, the suspended bowl, which is practically an inverted ball-bearing in principle, a marked advance, doing away with friction, and assuring ease in running; secondly, all the gearing is cut by machinery, and is therefore perfectly accurate; this insures even running; thirdly, the lubrication is automatic, and all parts in motion run in an oil bath; the waste oil is conveyed to one receptacle, where it can be drawn off at leisure and used for other purposes; fourthly, no tin covers are used on the "Melotte," the milk and cream passes over a beautifully-enamelled casing, and is very easily and quickly cleaned.

Ease of running is one of the most important features in a cream separator, for, if a hand machine is hard to turn, the speed is not kept uniform, and bad skimming is the result. It is claimed that "Melotte" takes 30 per cent. less power to work than any other separator.

In the main machinery building there was shown a full line of Alexandra and Melotte separators, among them being a large power Alexandra capable of separating 3,000 lbs. per hour for factory use; rotary and centrifugal milk pumps, suitable either for driving by belt or steam turbine; a complete pasteurizing outfit for town milkmen, adapted for either milk or cream, with 1,000 lbs. per hour capacity.

The milk or cream is first heated to a temperature of not less than 158 degrees Fahrenheit, and then passed through a circular milk cooler, quickly reducing the temperature to within a degree of the temperature of the cold water used.

This process neutralizes germs and makes the milk much more palatable and wholesome, besides improving its keeping qualities. In all the leading towns and cities of Great Britain this system is being employed by milk dealers who cater for the best trade.

The pasteurization of cream is an important factor in the manufacture of butter, ensuring uniformity in the flavor and destroying that salty and insipid taste so commonly found, besides adding to its keeping qualities. Seven-eighths of the butter imported from Denmark into Great Britain is made from pasteurized cream, and sells uniformly for higher prices than Canadian.

Mr. Austin A. Lister, son of the head of the firm, is now in charge of the Montreal house, which is the headquarters for Ontario, Quebec and the Maritime Provinces. He has erected and equipped a factory with the most modern plant for the manufacture and repair of the Alexandra and Melotte cream separators, in order to avoid delay in the execution of orders.

Users and intending buyers will appreciate this, as it is most important for factory proprietors or farmers to be able to get repairs done or new parts supplied quickly, and thus save a large quantity of milk being thrown on their hands.

Live Stock Breeders' Annual Meetings.

Mr. Hy. Wade, Secretary and Live Stock Registrar, Parliament Buildings, Toronto, Ont., advises us that the annual meetings of the various breeders' organizations have been arranged as follows: Tuesday, Feb. 6th—Dominion Ayrshire Breeders' Association, at 2 p. m.

For Sale.

The Samuel Hanna Estate, at Griswold.

As this estate must be closed out, it has been decided to offer for sale all those splendid farms owned by the late Samuel Hanna, and comprising about seventeen hundred acres within a few miles of Griswold.

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

For particulars apply to

Edmund W. Hanna,

Or to Goldwell & Coleman, Barristers, Brandon.

THORNCLIFFE Stock Farm

The largest stud of Clydesdales in Canada, headed by the Champion Stallion of all ages,

"LYON MACGREGOR."



Stallions, Mares, Colts and Fillies

Of all ages, from the best blood in Scotland and Canada.

Now is the time to purchase a young colt and raise him yourself.

We have on hand weanlings weighing over 900 lbs., also year-olds, 2-year-olds and 3-year-olds, colts and fillies.

Ayrshire bulls and heifers from imported stock. Best milking strains, with good teats.

Terms reasonable. A visit to Thorncliffe will well repay you.

ROBT. DAVIES,

Thorncliffe Stock Farm, TORONTO.

DALGETY BROS.,

GLENCOE, ONT.,

"Largest Importers . . . in Canada."

A large importation of

CLYDESDALE

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

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English Shire and Clydesdale Stallions.

We have them on hand from 3 to 5 years old, weighing from 1,900 pounds upwards. Write now for particulars and where you can buy the cheapest. We expect our next importation from England to arrive about January 1st, 1900.

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School will reopen for Factory Courses, Jan. 4th to March 31st. Special Creamery Course, Dec. 4th to 22nd. Instructors: Chas. O. Luton, cheesemaking; G. R. Johnson, separators and buttermaking; Arch. Smith, milk-testing and home dairy. The best of attention will be given to makers and others who want instruction. Send at once for circular and forms of application to

ARCH'D SMITH,

Superintendent Dairy School, Strathroy, Ont.

A Few Durham Heifers In Choice

Two bulls; two bull calves; all of choice breeding. Berkshire boars; brood sows and sow pigs. Prices right.

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HERD ESTABLISHED IN 1872. Such sires as imported Royal George and imported Warfare have put us where we are. Imported Blue Ribbon now heads herd.

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HERD OF Shorthorns, Oxfords, AND Berkshires.

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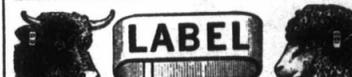
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I have a few promising young bulls on hand, and am booking orders for Shrop. ram lambs for fall delivery; well covered.

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J. T. GIBSON,

DENFIELD, ONT.

HAWTHORN HERD OF DEEP-MILKING SHORTHORNS.

We are offering 5 young bulls for sale, of first-class quality, and A1 breeding.

Wm. Grainger & Son, - Londonboro, Ont.

The Prize List, Provincial Winter Show, 1899.

BEEF CATTLE.

SHORTHORNS. - Steer, two years and under three-1, H. Smith, Hay; 2, J. Fried & Sons, Roseville. Steer, one year and under two-1, J. Fried & Sons, Steer; under one year-1, T. E. Robson, Iderton. Cow or heifer, three years and over-1, T. E. Robson; 2, J. Fried & Sons; 3, Haining Bros., Highgate. Heifer, two years and under three-F. Martindale, York. Heifer, under two-H. Smith. Sweepstake, best Shorthorn cow or heifer-T. E. Robson. Sweepstake, best Shorthorn animal-1, H. Smith; 2, T. E. Robson. Two best animals in class-T. E. Robson.

HEREFORDS AND POLLED ANGUS. - Steer or heifer, two years and under three-1, Walter Hall, Washington; 2, James Bowman, Guelph. Steer or heifer, one year and under two-1, James Bowman; 2, Walter Hall; 3, James Bowman. Steer or heifer, under one-1, J. Bowman; 2, 3 and 4, W. Hall. Cow or heifer, three years and over-1, 2 and 3, J. Bowman. Best animal in class-W. Hall. Best two animals in class-J. Bowman.

GALLOWAYS AND DEVONS. - Steer or heifer, two years and under three-1, A. M. & R. Shaw, Brantford; 2, D. McCrae, Guelph; 3, W. J. Rudy, Eden Mills. Steer or heifer, one year and under two-1, A. M. & R. Shaw; 2 and 3, D. McCrae. Steer or heifer, under one year-1, A. M. & R. Shaw; 2, D. McCrae; 3, W. J. Rudy. Cow or heifer, three years and over-1, Shaw; 2, McCrae; 3, W. J. Rudy. Best animal in class-A. M. & R. Shaw. Two best animals in class-A. M. & R. Shaw.

GRADES OR CROSSES. - Steer, 2 years and under three-1, J. Leask, Greenbank; 2, Lloyd Jones & Sons, Burford. Steer, one year and under two-1, J. Fried & Sons; 2, J. Leask; 3, J. Fried & Sons. Steer, under one year-1, J. Fried & Sons; 2, J. Leask. Cow or heifer, three years and over-1, J. Fried & Sons; 2, J. Leask. Cows, two years and under three-1, J. Fried & Sons; 2, F. Martindale, York. Heifer, under two years-1 and 2, J. Leask. Two best animals in class-1, J. Leask; 2, J. Fried & Sons. Steer, Shorthorn grade, by pure-bred Shorthorn bull-1, J. Fried & Sons. Championship prize for best beef animal in show-H. Smith's two-year-old steer, Free Trade.

SHEEP. COTSWOLDS. - Ewe, under one year-1, J. Park & Son, Burgessville; 2, T. H. Shore, Glanworth; 3 and 4, J. Rawlings, Ravenswood. Wether, one year and under two-1 and 2, J. Park & Son; 3 and 4, George Allen. Wether, under one year-1 and 2, J. Park & Son; 3, George Allen; 4, J. Park & Son. Three ewes, under one year-1, J. Park & Son; 2, George Allen. Ewes, under one year-1, J. Rawlings, Ravenswood; 2, J. Park & Son; 3, T. H. Shore; 4, George Allen.

LINCOLNS. - Ewe, under one year-1, 2, 3, 4 and 5, Gibson & Walker, Denfield. Wether, one year and under two-1 and 2, Gibson & Walker. Wether, under one year-1, 2 and 3, Gibson & Walker. Three ewes, under one year-Gibson & Walker. Three ewes, under one year-1 and 2, Gibson & Walker.

LEICESTERS. - Ewe, under one year-1 and 2, John Kelly, Shakespear; 3, J. M. Gard, Highfield. Wether, one year and under two-1 and 2, Orr & Lillico. Wether, under one year-1, Orr & Lillico; 2, John Kelly; 3 and 4, Orr & Lillico. Three ewes, under one year-1, John Kelly; 2, J. M. Gardhouse; 3, Orr & Lillico; 4, John Kelly.

OXFOLDS. - Ewe, under one year-1 and 2, Kenneth Finlayson, Campbellton; 3 and 4, Andrew Elliott, Pond Mills. Wether, one year and under two-1 and 2, Andrew Elliott. Wether, one year and under two-1, 2 and 3, Andrew Elliott. Three ewes, under one year-1, Kenneth Finlayson; 2, Andrew Elliott; 3 and 4, J. H. Hull, Mt. Vernon.

SHROPSHIRE. - Ewe, under one year-1, D. G. Hamner & Sons, Mt. Vernon; 2, Richard Gibson, Delaware; 3 and 4, J. Campbell, Woodville. Wether, one year and under two-1, Richard Gibson; 2, John Campbell; 3, Richard Gibson; 4, W. E. Wright, Glanworth. Wether, under one year-1, John Campbell; 2 and 3, D. G. Hamner & Sons; 4, W. E. & G. L. Telfer, Paris. Three ewes, under one year-1, D. G. Hamner & Sons; 2, Richard Gibson; 3, W. E. Wright; 4, D. G. Hamner & Sons; 5, Richard Gibson; 6, D. G. Hamner & Sons; 7, Richard Gibson; 8, D. G. Hamner & Sons; 9, Richard Gibson; 10, D. G. Hamner & Sons.

SOUTH-DOWNS. - Ewe, under one year-1 and 2, John Jackson & Sons, Abingdon; 3 and 4, T. C. Douglass, Galt. Wether, one year and under two-1, John Jackson & Sons; 2, Richard Gibson; 3, John Jackson & Sons; 4, D. G. Hamner & Sons; 5, W. E. & G. L. Telfer. Three ewes, under one year-1, John Jackson & Sons; 2, W. E. & G. L. Telfer. Three ewes, under one year-1 and 2, John Jackson & Sons; 3 and 4, T. C. Douglass.

DORSET HORNS AND MERINOS. - Ewe, under one year-1, 2 and 3, R. H. Harding. Wether, one year and under two-1, W. H. Beattie, Wilton Grove; 2 and 3, R. H. Harding. Wether, under one year-1 and 2, R. H. Harding; 3, W. E. Wright, Glanworth.

HAMPSHIRE AND SUFOLK. - Ewe, under one year-1 and 2, John Kelly; 3 and 4, James Bowman, Guelph. Wether, one year and under two-1, 2 and 3, W. J. Rudy; 4, James Bowman. Wether, under one year-1, 2 and 3, W. J. Rudy.

SWEEPSTAKES. - Best animal in class: Cotswolds-John Park & Son, Lincolns-Gibson & Walker, Leicesters-John Kelly, Oxford-Andrew Elliott, Shropshires-Richard Gibson, Southdowns-John Jackson & Sons, Dorset Horns-W. H. Beattie, Hampshires and Suffolks-John Kelly (Hampshire).

GRADES AND CROSSES. - Ewe, one year and under two-1, John Campbell; 2, J. M. Gardhouse, Highfield; 3, John Campbell; 4, H. Hamner, Wether, one year and under two-1, John Campbell; 2, Orr & Lillico; 3, W. H. Beattie. Three ewes, under one year-1, Orr & Lillico; 2, John Campbell; 3, W. E. & G. L. Telfer; 4, W. E. Wright. Wether, under one year-1, Orr & Lillico; 2, John Campbell; 3, W. E. Wright; 4, D. G. Hamner. Ewe, under one year-1, J. M. Gardhouse; 2, John Campbell; 3, Gibson & Walker; 4, James Bowman. Best

ewe or wether under two years-1 John Campbell; 2, J. M. Gardhouse.

GRAND SWEEPSTAKE. - Best sheep, any breed or cross-John Jackson & Sons, Abingdon, Southdown yearling wether.

PRINCE OF WALES PRIZE. - Pen of five pure-bred lambs, ewes or wethers-1, John Campbell, Shropshires; 2, J. Rawlings, Cotswolds.

DRESSED CARCASSES. - Cotswolds-1 and 2, John Park & Son; 3, Geo. Allen, Lincolns-1 and 2, Gibson & Walker, Leicesters-John Kelly, Oxfords-Andrew Elliott, Shropshires-1, Richard Gibson; 2, W. H. Beattie; 3 and 4, D. G. Hamner & Sons, Southdowns-1, W. E. & G. L. Telfer, Dorset Horns-R. H. Harding, Hampshires and Suffolks-1 and 2, James Bowman; 3, W. J. Rudy.

SWINE.

BERKSHIRES. - Barrow, six months and under nine-1, T. A. Cox, Brantford; 2, George Green, Fairview; 3 and 4, T. A. Cox. Barrow, under six months-1 and 2, George Green; 3, T. A. Cox. Sow, nine months and under fifteen-1, T. A. Cox; 2 and 3, Geo. Green; 4, T. A. Cox. Sow, six months and under nine-1, Geo. Hill, Delaware; 2 and 3, T. A. Cox; 4, Geo. Green. Sow, under six months-1 and 2, Geo. Green; 3, T. A. Cox. Three pigs, the offspring of one sow, bred by exhibitor-1, Geo. Green; 2, T. A. Cox.

YORKSHIRES. - Barrow, six months and under nine-1 and 3, J. E. Brethour, Burford; 2, Jos. Featherston & Son, Streetsville; 4, H. J. Davies, Woodstock. Barrow, under six months-1 and 4, Jos. Featherston & Son; 2 and 3, J. E. Brethour. Sow, nine months and under fifteen-1 and 3, J. E. Brethour; 2, J. Featherston & Son. Sow, six months and under nine-1, Jos. Featherston & Son; 2, H. J. Davies, Woodstock; 3 and 4, J. E. Brethour. Sow, under six months-1 and 3, J. E. Brethour; 2 and 4, Jos. Featherston & Son. Three pigs, the offspring of one sow, bred by exhibitor-1 and 3, J. E. Brethour; 2, Jos. Featherston & Son.

CHESTER WHITES. - Barrow, 6 months and under 9-1, D. DeCourcy, Bornholm; 2 and 4, W. E. Wright; 3, H. George & Sons, Cranpton. Barrow, under six months-1, George Bennett & Pardo, Charing Cross; 2, D. DeCourcy; 3, H. George & Sons; 4, W. E. Wright. Sow, nine months and under fifteen-1, Wm. Butler & Son, Dereham Centre; 2, G. Bennett & Pardo; 3, H. George & Son; 4, Jos. Cairns, Camlackie. Sow, six months and under nine-1, Jos. Cairns; 2, Wm. Butler & Son; 3 and 4, H. George & Son. Sow, under six months-1, A. G. Bennett & Pardo; 2, Wm. Butler & Son; 3, D. DeCourcy. Three pigs, the offspring of one sow, bred by exhibitor-1, G. Bennett & Pardo; 2, Wm. Butler & Son; 3, Jos. Cairns; 4, D. DeCourcy.

POLAND-CHINAS. - Barrow, six months and under nine-1, W. & H. Jones, Mount Elgin; 2 and 3, W. M. Smith, Fairfield Plains. Barrow, under six months-1, W. & H. Jones; 2 and 3, W. M. Smith. Sow, nine months and under fifteen-1 and 2, W. & H. Jones; 3, W. M. Smith. Sow, six months and under nine-1 and 2, W. & H. Jones; 3, W. M. Smith. Sow, under six months-1, 2 and 3, W. & H. Jones; 4, W. M. Smith. Three pigs, the offspring of one sow, bred by exhibitor-1 and 2, W. & H. Jones; 3, W. M. Smith.

SUFFOLKS AND ESSEX. - Barrow, six months and under nine-1 and 3, Jos. Featherston & Son; 2, T. A. McClure, Meadowvale. Barrow, under six months-1 and 3, Jos. Featherston & Son; 2, T. A. McClure. Sow, nine months and under fifteen-1 and 2, Jos. Featherston & Son; 3, T. A. McClure. Sow, six months and under nine-1 and 2, T. A. McClure; 3, Jos. Featherston & Son. Sow, under six months-1 and 2, Jos. Featherston & Son; 3, T. A. McClure. Sow, under six months-1 and 2, T. A. McClure; 3, Jos. Featherston & Son. Three pigs, the offspring of one sow, bred by exhibitor-1, T. A. McClure; 2, Jos. Featherston & Son.

TAMWORTHS. - Barrow, six months and under nine-1 and 2, A. Elliott & Son, Galt. Barrow, under six months-1, A. Elliott & Son; 2 and 3, Wm. R. McDonald, Ridgetown. Sow, nine months and under fifteen-1, W. H. Smith; 2, A. Elliott & Son; 3, H. George & Sons, Cranpton. Sow, six months and under nine-1 and 5, J. R. Newell & Son, Cranpton; 2, 3 and 4, Wm. R. McDonald. Sow, under six months-1, H. George & Son; 2 and 3, A. Elliott & Son; 4, Wm. R. McDonald. Three pigs, the offspring of one sow, bred by exhibitor-1, A. Elliott & Son; 2, Wm. R. McDonald.

DURHAM-JERSEYS. - Barrow, six months and under nine-1 and 3, Tape Bros., Ridgetown. Barrow, under six months-1, 2 and 3, Tape Bros.; 4, W. M. Smith. Sow, nine months and under fifteen-1 and 2, Tape Bros. Sow, six months and under nine-1, 2 and 3, Tape Bros. Sow, under six months-1, 2 and 3, Tape Bros.; 4, W. M. Smith. Three pigs, the offspring of one sow, bred by exhibitor-1 and 2, Tape Bros.

SWEEPSTAKES. - Best animal in class: Berkshires-1, T. A. Cox; 2, Geo. Green, Yorkshires-1, J. E. Brethour; 2, Jos. Featherston & Son. Chester Whites-Wm. Butler & Sons. Poland-Chinas-W. & H. Jones, Suffolks and Essex-Jos. Featherston & Son, Tamworths-1, W. M. Smith; 2, A. Elliott & Sons, Duroc-Jerseys-Tape Bros.

GRADES AND CROSSES. - Barrow, six months and under nine-1 and 2, T. A. Cox, Barrow, under six months-1 and 2, A. Elliott & Son; 3, Wm. Butler & Sons. Sow, six months and under nine-1 and 2, T. A. Cox. Sow, under six months-1, A. Elliott & Son; 2, Wm. Butler & Son.

EXPORT BACON HOGS. - Two Berkshires-1 and 2, Geo. Green; 3, W. J. Rudy. Two Yorkshires-1 and 4, Jos. Featherston & Son; 2 and 3, J. E. Brethour. Two Tamworths-1, H. George & Sons; 2, Jos. Smith, Harrietsville; 3, A. Elliott & Son; 4, Wm. R. McDonald. Two Chester Whites-1, D. DeCourcy; 2, Wm. Butler & Son; 3, H. George & Sons. Two Poland-Chinas-1, W. M. Smith; 2 and 3, W. & H. Jones. Two Duroc-Jerseys-1 and 2, Tape Bros.; 3, W. M. Smith. Two Suffolks or Essex-1 and 2, Jos. Featherston; 3, T. A. McClure. Two grades or crosses-A Elliott & Sons.

SWEEPSTAKE BACON HOGS. - Two best export bacon hogs, any breed-1, J. E. Brethour; 2, Jos. Featherston & Son; 3, H. George; 4, Geo. Green; 5, James Smith.

DRESSED CARCASSES. - Two Improved Berkshires-1 and 3, Geo. Green; 2, W. J. Rudy. Two Improved Yorkshires-1, J. E. Brethour; 2, Jos. Featherston & Son; 3, G. B. Hood, Guelph. Two Tamworths-1, A. Elliott; 2, A. C. Hallman, New Dundee; 3, Wm. R. McDonald. Two Chester Whites-1, R. H. Harding; 2, Wm. Butler & Son; 3, H. George &

Sons. Two Poland-Chinas-1, W. M. Smith; 2 and 3, W. & H. Jones. Two Duroc-Jerseys-1, Tape Bros; 2 and 3, W. M. Smith. Two Suffolks or Essex-1 and 2, Jos. Featherston & Son; 3, T. A. McClure. Two grades or crosses-1, H. George & Sons; 2, A. Elliott & Sons. Two best carcasses, any breed-1, J. E. Brethour; 2, Geo. Green; 3, Jos. Featherston & Son. DAIRY TEST. - See tabulated report on page 7.

ARTHUR JOHNSTON

Greenwood P. O. and Telegraph Office,



OFFERS FOR SALE, AT MODERATE PRICES, 13 IMPORTED AND SHORTHORN BULLS HOME-BRED 17 IMPORTED COWS and HEIFERS 22 HOME-BRED COWS and HEIFERS Many of them from imported cows, and by imported bulls. Catalogues on application. Clarendon Station, C. P. R., or Pickering Station, G. T. R.

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The famous sire, Abbotsford = 1946 =, and the crack young show bull, (imp.) Knuckle Duster (72793), head the herd, which is largely of Cruickshank blood. Twelve good young bulls (some toppers), and a choice selection of females for sale. Address, Exeter Station, G. T. R., H. SMITH, half mile from farm. -om HAY, ONT.

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FOR SALE. 100 head to select from; 23 grand young bulls by Valkyrie = 21806 =, and cows and heifers of all ages, of the most approved breeding, served by (imp.) Diamond Jubilee = 28861 =, now at the head of our herd. T. DOUGLAS & SONS, Strathroy Station and P. O. Farm 1 mile north of the town.

JOHN DRYDEN.

BROOKLIN, ONTARIO.

Scotch Shorthorns,

Choice Shropshire Sheep.

SHORTHORNS

I have six young females for sale - three are in calf and three old enough to be bred. These heifers have four or more crosses of the finest Booth sires, on imported Marr and Gordon Castle foundation, a desirable and needed line of breeding. -om D. ALEXANDER, Brigidon, Ont.

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BREEDERS OF Shorthorns, Cotswolds, and Berkshires. Have for sale cows, heifers, and heifer calves; a choice lot of ram lambs, ewe lambs, and breeding ewes; 40 Large English Berkshires, of the long bacon type, from six weeks to nine months old. -o

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4 Imported Clydesdale Stallions. 10 Scotch-bred Shorthorn Bulls. PRICES REASONABLE.

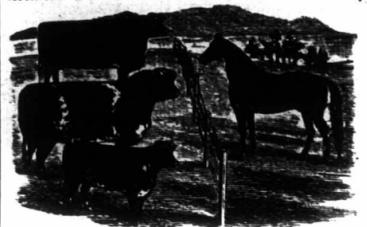
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Correspondence Invited.

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About 10 head cows and heifers in calf to Golden Stamp (21330). Also 5 nice young bulls. Shore Brothers, White Oak, Ont.

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OFFERS FOR SALE 7 Imported Bulls, 5 Canadian-bred Bulls, 30 Canadian-bred Cows and Heifers; ALSO A NUMBER OF IMPORTED COWS and HEIFERS.

The noted imported bull, Golden Fame, is at the head of my herd. Prices consistent with quality. Correspondence and inspection invited. Visitors welcome. Catalogue on application. -om

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

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Young Shorthorn bulls, heifers and cows for sale. Prices right.

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I am prepared to offer at reasonable prices, for a short time, a few very choice young registered

Shorthorn Bulls and Heifers in good health and fine growing condition. Simcoe Co., Coldwater Station. SAMUEL DUNLOP, Eady, Ont.

FIVE SHORTHORN BULLS

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

Maple Lodge Stock Farm

ESTABLISHED 1854.

SHORTHORNS. - Exceptionally good young bulls by Caithness = 22063 = and Abbotsford = 1946 =. And choice heifers in calf to Abbotsford and our grand young imported bull, Knuckle Duster (72973). We have the best milking strains. LEICESTERS. - The very best imported and home-bred rams and ewes for sale. Write us for prices.

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8 SHORTHORN BULLS 8

From 8 to 19 Months. Thick-fleshed rams and roans, out of Bates-bred Scotch-topped dams, and by Lord Stanley 4th twice a winner at Toronto. Registered Yorkshires later. om G. & W. GIER, Grand Valley, Ont.

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Two choice young bulls, 17 months old; also a number of young cows and heifers. A. P. ALTON & SON, Burlington Jct. Station, Appleby P. O., Ont.

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Forty rods north of Stouffville Station, has for sale three excellent young Shorthorn Bulls, yearling and two-year-old Heifers in calf. Shropshire Lambs, both sexes; also Berkshires. At very moderate prices. -om D. H. RUSSELL, Stouffville, Ont.

25-Shorthorn Bulls-25

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

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Shorthorn Cattle, Oxford Sheep, and Bronze Turkeys. Young bulls for sale. om JAS. TOLTON, WALKERTON, ONT.

River Bow Stock Farm.

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Breeders of

Shorthorn Cattle, Poland-China and Chester White Swine.

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



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We have for sale 10 red and dark roan bulls, from 3 to 15 months old, good, straight, thick ones; also 10 heifers and young cows, mostly reds, with calf at foot or now being bred.



R. MITCHELL & SON,

Burlington Jct. Station, Nelson P. O.

A. D. MCGUGAN,

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Shorthorn Cattle and Lincoln Sheep

The noted sire, Abbotford, stands at the head of our herd. We have a few choice red bulls to offer; also ram and ewe lambs from imported stock.

Shorthorn Bulls and Heifers.

Strongly tainted with the blood of the Crimson Flowers and Nonpareils, upon which have been employed such sires as Indian Duke, Crimson Prince, etc. Write John R. Harvie, Orillia, Ont.

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First prize herd and medals for best bull and best female, Toronto, London, Ottawa. Send for prices and illustrated catalogue.

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Orders booked for spring pigs—pairs not akin. High quality and low prices.

H. D. SMITH, COMPTON, QUE.

Aberdeen-Angus Cattle

FOR OF ANY AGE OR SEX, OR DORSET sheep, write us or come and see them. Look to the prize lists of the large shows to prove the quality.

JAMES BOWMAN, Elm Park, GUELPH.

GUERNSEYS.

This is the dairy breed for ordinary farmers. Large, vigorous, and hardy, giving plenty of rich milk. Several fine young bulls for sale at very reasonable prices. A few heifers can be spared.

Address—SYDNEY FISHER, 17-y-o ALVA FARM, KNOWLTON, P. Q.

F. W. STONE ESTATE, GUELPH, ONTARIO.

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

BRAMPTON JERSEY HERD.

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

B. H. BULL & SON, BRAMPTON, ONT.

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

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

W. W. EVERITT, Chatham, Ont.

Meadowbrook Jerseys, Tamworths.

Bulls and Heifers for sale from herd that averaged \$63.10 per head for butter-fat alone last year. Sows that are bred and boars fit for service from first prize exhibition stock.

EDGAR SILCOX, Shelden.

GLEN ROUGE JERSEYS.

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

GOSSIP.

Mrs. H. C. Graham, Ailsa Craig, writes that her Mammoth White turkeys won four 1st prizes at Hamilton Poultry Show and her Bronze won 2nd. This is a good record for six entries, which indicates the merits of Mrs. Graham's stock.

Dominion Cattle Breeders' Association.

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

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

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

American Leicester Breeders' Association.

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

The advisability of adopting a standard of excellence for the breed was discussed at considerable length, but since there are two decided types of Leicesters, viz., the Border and English, it was decided not to attempt a standard at the present time. Messrs. J. M. Gardhouse, Wm. Whitelaw, and J. H. Grisdale, B. A., were appointed, on behalf of the association, to prepare a resolution of condolence to be sent to the bereaved families of their late lamented members, Messrs. Geo. Richardson, Benedict, Neb., and James Gaunt, St. Helen's, Ont. Officers:—President, D. C. Graham, Cameron, Ill.; Vice-President, A. W. Smith, Maple Lodge, Ont.; Directors—John Kelly, Shakespeare, Ont.; John Walton, Calkinsville, Mich.; J. W. Murphy, Cass City, Mich.; C. E. Wood, Freeman, Ont.; J. M. Gardhouse, Highfield, Ont. Hon. Vice-Presidents for States and Provinces: Pennsylvania—W. A. McCoy, Mercer, Ont.; Ontario—A. Whitelaw, Guelph, Michigan—John Marshall, Cass City, Nebraska—Robert Taylor, Abbot, New Brunswick—M. H. Parlee, Sussex, Illinois—A. L. Wingate, Avon, Nova Scotia—S. P. Gandy, Yarmouth, Prince Edward Island—Wm. Clark, North Wiltshire, Quebec—Isaac Parnell, Lennoxville, Oregon—J. W. McKenney, Salem, Manitoba—Alex. D. Gamley, Brandon, New York—W. E. Scribner, Scholarie, Massachusetts—H. D. Harriman, Saxonville; and Col. T. D. Burch, Chicago.

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

10 Imported Shorthorn Bulls

ALL SCOTCH.

21 IMPORTED HEIFERS.



21 IMPORTED HEIFERS.

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

H. CARGILL & SON, CARGILL, ONT. Cargill Station and Post Office on G. T. R., within half a mile of barns.

20 - Imported Scotch Shorthorns - 20

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

THIS importation came out of quarantine on the 12th July, and representatives of many of the leading Scotch families are amongst them, including Minas, Brawith Buds, Secrets, Mysies, Beauties, Lady Mays, Lustras, etc. The home-bred herd contains Indian Statesman - 23004 -, and 15 young bulls from 6 to 18 months old, and 50 cows and heifers of all ages. Registered Shropshires, yearling rams and ewes, ram lambs from imp. Flashlight. Any of the above will be sold at reasonable prices. Correspondence or a personal visit solicited. Catalogues on application. Burlington Junction Station and Telegraph Office, G. T. R., within half a mile of farm. W. G. PETTIT & SON, FREEMAN, ONT.

HILLHURST FARM.

ESTABLISHED 1864.

Scotch Shorthorns.

SIREN IN SERVICE: SCOTTISH HERO AND JOY OF MORNING, BREED BY W. DUTHIE, COLLYNIE.

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

M. H. COCHRANE,

HILLHURST STATION, COMPTON CO., P. Q.

Pure-bred Ayrshire Imported Cattle.

LARGEST AND MOST EXPENSIVE IMPORTATION IN AMERICA.



Bred for the dairy, with grand constitution, and champion prize records awarded them in Scotland and England. Sweepstakes herd, Montreal, Toronto, London, and Ottawa, in 1897; also Toronto, 1899. Awarded four years in succession herd prize at Ottawa's great exhibition, and special gold medal; at Montreal, herd prize and W. W. Ogilvie's special \$100.00 prize. Their individual prize records are of the same distinguished honors of their exhibition career. Stock all ages for sale and at prices in reach of all.

Maple Grove R. G. STEACY, Ayrshire Stock Farm Importer and Breeder, LYN, ONT. Brockville, Ont. Line G. T. R. Box 720.

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



Special Sale for January Only:

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



For particulars, address

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

AYRSHIRES and YORKSHIRES.

We now offer our stock bull, "White Chief of St. Annes," at \$75, and will pay half the freight to any point in Ontario; also a few choice young bulls. We also offer at special values, boars fit for service, young sows just served, and young pigs, of both sexes, from 2 months to 5 months old.



ALEX. HUME & CO., Menie P. O., Ont.

Hoard's G. T. R. Station.

Deschenes Jersey Herd. Jersey Cattle

HEADED BY IDA'S RIOTER OF ST. LAMBERT 47570.

4 young bulls fit for service—registered. Also Tamworth swine from diploma herd, Canada Central Fair, Ottawa, 1898.

R. & W. CONROY, DESCHENES MILLS, QUEBEC.

PLEASE MENTION FARMER'S ADVOCATE.

THAT WILL PUT

MONEY IN YOUR POCKET.

Mrs. E. M. Jones,

Box 324. BROCKVILLE, ONT., CAN.

The Big 4 at Brookside

THEIR HOLSTEINS: Netherland Hengerveld... Official test, 26.66 lbs. DeKol 2nd... 25.57 "

Maple Glen Stock Farm.

Special Offer... For immediate sale, 10 choice females of rich breeding. Quality Tops... Blood Best... Prices Reasonable

MAPLE HILL HOLSTEIN-FRIESIANS

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

OH, YES!

We sell Holsteins, singly or a carload. For sale now - 7 bulls, over 1 year; 7 calves, over 1 month; 15 females, any age desired, bred to any one of our great bulls.

Lynnfield Holstein Herd.

Do you want to buy young cows that are great milkers, also two-year-old heifers, bred to our stock and show bull, Homestead DeKol Belle Boy.

WE HAVE PURCHASED

a stock farm at Lynn, Ont., where we have removed our famous herd of Holsteins. We can give you a special bargain in the 3-month-old heifer, "Ione Jewel Sylvia," winner of 1th prize in a large class at Toronto this year.

FOR SALE: A NUMBER OF Choice Ayrshire Bulls THE IMP. BULL Jock Morton.

A few young bulls fit for service, and bull calves under a year. Also a few heifers and heifer calves. Banded Rock, Black Spanish and Black Minorca fowls, and Cayuga and Rouen ducks.

JAS. McCORMACK & SON, ROCKTON, ONTARIO. CHOICE AYRSHIRE BULLS

OFFER for sale 1 August and 1 October, 1898, bull, and an April, an August, and a November calf, of 1899. The August calf is a son of that exceedingly fine cow, Daisy 1st of Auchincloss.

W. W. BALLANTYNE, Formerly Thos. Ballantyne & Son. Stratford, Ont. "NEIDPATH FARM" adjoins city, main line G.T.R.

Dairyman Wanted. One who understands feeding, milking and buttermaking, and who is willing to work to make himself a good situation. Give salary expected, experience and references. Address:

JOHN J. LENTON, Clerk, "Hambledune Farms," LUTHERVILLE, MD.

Trout Run Stock Farm. Choice Ayrshire Cattle and Poultry. Royal Star of Ste. Annes (7916), winner of first prize at Toronto, first prize and sweepstakes at London, 1898, heads the herd.

WM. THORN, NORFOLK CO. LYNEDOGH, ONT.

Dominion Sheep Breeders' Association.

The members of the Dominion Sheep Breeders' Association met in convention in London on Dec. 14th. President D. G. Hamner presided, and in his opening remarks congratulated the breeders on the year's business.

AYRSHIRES FOR SALE.

The kind that can speak for themselves. Size, constitution, dairy and show combined. Six young bulls for sale, by Glencairn 3rd (imp.), dam Primrose (imp.).

WM. WYLIE, 228 BLEURY ST., MONTREAL, OR HOWICK, P.Q.

Ayrshire Cattle and Berkshire Pigs.

The bull Tom Brown and the heifer White Floss, winners of sweepstakes at World's Fair, were bred from this herd. Young stock for sale. Also Leicester sheep & Berkshire swine.

HICKORY HILL AYRSHIRES.

A few choice dairy bulls for sale, or will exchange for first-class fresh milk cows, if taken at once. N. DYMMENT, Clappison's Corners, Ont. Hamilton Station.

FOR SALE.

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

Ayrshire Bull Calves of 1899

3 YET on hand, and more to come within the next month, from some of our best imported cows. Will sell at reasonable prices. Address: ROBT. HUNTER, Manager to W. W. Ogilvie. LACHINE RAPIDS, QUE.

1 Yearling Ayrshire Bull for Sale.

Also 4 bull calves (spring of 1899), sired by Douglas of Loudoun. F. W. Taylor, Wellman's Corners, Ont.

Maple Cliff Dairy and Stock Farm.

Ayrshires and Tamworths for Sale

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

R. Reid & Co., HINTONBURG.

Belvoir Shropshires

ARE AGAIN TO THE FRONT. At the late Provincial Fat Stock Show they won as follows: First and third for wethers; second, ewe lambs; second, pen of three wether lambs; third, pen of three ewe lambs.

RICHARD GIBSON, DELAWARE, ONT.

SHROPSHIRE SHEEP AND COLLIE DOGS.

200 Bronze Turkeys, the Farmers' Daughter strain. 100 White Holland Turkeys. W. H. BEATTIE, Wilton Grove, Ont.

SHROPSHIRE W. S. Hawkshaw & SON, GLANWORTH, ONT.

AYRSHIRES FOR SALE.

The kind that can speak for themselves. Size, constitution, dairy and show combined. Six young bulls for sale, by Glencairn 3rd (imp.), dam Primrose (imp.).

JAMES BODEN, TREDINNOCK FARM, STE. ANNE DE BELLEVUE, QUE.

WM. WYLIE, 228 BLEURY ST., MONTREAL, OR HOWICK, P.Q.

Breeder of high-class Ayrshires. Young stock always for sale; bred from the choicest strains procurable. Breeding stock selected from the most fashionable strains and prize-winning stock of the day. Farm located at Howick, Que. 5-1-y-o

Ayrshire Cattle and Berkshire Pigs.

The bull Tom Brown and the heifer White Floss, winners of sweepstakes at World's Fair, were bred from this herd. Young stock for sale. Also Leicester sheep & Berkshire swine.

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200 Bronze Turkeys, the Farmers' Daughter strain. 100 White Holland Turkeys. W. H. BEATTIE, Wilton Grove, Ont.

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EUROPEAN ADVERTISEMENTS.

Hampshire Down Sheep.

SPLENDID MUTTON. GOOD WOOL. GREAT WEIGHT. This highly valuable English breed of sheep is unrivalled in its

Rapid and Wonderfully Early Maturity, possessing, too, a hardness of constitution adapted to all climates, whilst in the quality of

MUTTON AND LARGE PROPORTION OF LEAN MEAT IT IS UNSURPASSED.

Full information of JAMES E. RAWLENCE, Secretary, Hampshire Down Sheep Breeders' Association, SALISBURY, ENGLAND.

The Danesfield Pedigree Stock

IMPORTERS desirous of securing selections of either Shire horses, Aberdeen-Angus cattle or Hampshire Down sheep should inspect the stud, herd and flock, property of Mr. E. W. Hudson, which are kept in the highest degree of purity that care and selection can produce at Danesfield, Marlow, Bucks, England. Specimens of horses, cattle and sheep have been largely exhibited at the principal English shows during 1899 with very prominent success. For full information, etc., apply:

MR. COLIN CAMPBELL, ESTATE OFFICE, DANESFIELD, MARLOW, BUCKS. who will be happy to make arrangements for inspection, or to quote prices.

FAMOUS ALL OVER THE WORLD. ALFRED MANSELL & CO., LIVE STOCK AGENTS AND EXPORTERS, SHREWSBURY.

BRITISH STOCK selected and shipped to all parts of the world. Write for prices to ALFRED MANSELL & CO., Secretaries of the Shropshire Sheep Breeders' Association, Shrewsbury, England.

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

Pedigree Live Stock Agent, Exporter and Shipper. All kinds of registered stock personally selected and exported on commission; quotations given, and all enquiries answered. Address: FITZALAN HOUSE, ARUNDEL ST., STRAND, LONDON W. W. Cable - Sheepsheads, London.

HENRY DUDDING, RIBY GROVE, GREAT GRIMSBY, LINCOLNSHIRE.

has always for inspection and sale from the largest and most noted flock of pure Lincoln Longwool Sheep in the country, both Rams and Ewes of all ages. Representative specimens from this flock have secured for many years past at the Royal Shows champion and other prizes; whilst they have also at both the Paris Exhibitions, Vienna, Amsterdam, Chicago, Palermo, secured champion awards, and at all the leading shows in Australia, New Zealand, Canada, and the States. Riby sheep and their descendants have secured the highest honors. Wool is a leading feature in the flock, its quality being amply testified by the fact that wherever exhibited it has each time secured the premier prize including that at Windsor in 1899. The record of its careful breeding and consistent success is world-wide, and the present members of the flock are fully equal to any that have preceded them during the past 130 years in which it has been in existence, descending from father to son without dispersal. The flock holds the record for the highest price ram of 1898 (i. e., 1,000 gs.), and for the highest recorded average for an auction sale of fifty-two rams (i. e., 226 19s.) at the annual sale in July, 1898. A grand selection of yearling and other sheep on offer, sired by the most carefully selected sires obtainable, in which are contained all the best strains of the present day. Next annual sale, July 24th, 1900. Telegrams: "Dudding, Keelby."

J. E. CASSWELL, Laughton, Folkingham, Lincolnshire.

breeder of Lincoln Long-wooled Sheep, Flock No. 46. The flock was in the possession of the present owner's great-grandfather in 1785, and has descended direct from father to son without a single dispersion sale. J. E. Casswell made the highest average for 20 rams, at the "Annual Lincoln Ram Sale," 1895 and 1897. The 1895 rams were all sold for exportation. Ram and ewe hoggs and shearlings for sale, also Shire horses, Shorthorns, and Dark Dorking fowls. Telegrams: "Casswell, Folkingham, Eng." Station: Billingborough, G. N. R.

Shropshire Rams and Ewes

Newly imported from the greatest English breeders. Home-bred rams and ewes of best quality. Scotch Shorthorns and Clydesdale horses for sale at moderate prices, and in large numbers, by

ROBERT MILLER, STOUFFVILLE, ONT.

Bronze, Narragansett and White Holland TURKEYS.

Also Pekin Ducks and Emden Geese; all of best quality. A number of fine collie pups and Oxford sheep on hand. ANDREW ELLIOT, POND MILLS, ONT.

Sheep.

GREAT WEIGHT.

Maturity,

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RVILLE, ONT.

RKEYS.

Geese; all of best

Oxford Down Sheep

Flock Established 19 Years.

Have a few ewes of different ages for sale, in lamb to imported ram.

HENRY ARKELL,

ARKELL P. O., ONT.

Guelph: Telegraph and Telephone.

ENGLISH BERKSHIRES.

FOR SALE at moderate prices: Two stock boars, 2 yearling sows, and a lot of spring sows, also a few choice Shorthorn-helfer calves.

JOHN RACEY, Jr., Lennoxville, Que.

LARGE ENGLISH BERKSHIRES.



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

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

SNELGROVE BERKSHIRES AND COTSWOLDS.

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

SNELL & LYONS, Snelgrove, Ont.

Yorkshires, Berkshires, and Shorthorns.

Yorkshire boars fit for service. Sows ready to breed, and sows safe in pig, of bacon type. Berkshire boars fit for service. Sows safe in pig, sows ready to breed—large, lengthy, smooth type. 1 bull calf, 9 months; 1 heifer calf, 10 months. Write for prices.

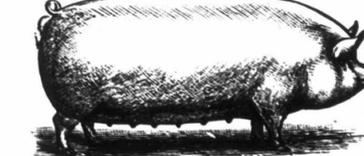
JAS. A. RUSSELL, Precious Corners, Ont.

Large English Berkshires.

WE offer for sale the imported boar, No 14. His Duke, first prize winner at every fair exhibited in 1899. Young boars and sows bred from imported prizewinning stock. Write for prices.

H. BENNETT & SON, ST. WILLIAMS, ONT.

OAK LODGE HERD OF Large Yorkshires.



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

J. E. BRETHOUR, BURFORD, ONT.

WOODSTOCK Yorkshires, Berkshires, Shorthorns

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

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

YORKSHIRES AND HOLSTEINS:

Boars and sows, not kin, from 2 to 6 months, from prizewinners at Toronto and local shows. A 3-year-old bull, of the Tirania family; and young stock at reasonable prices.

R. HONEY, Warkworth, Ont.

OHIO IMP. CHESTER WHITE PIGS

Boars fit for service. Sows ready to breed. Also November pigs. Write for prices.

T. E. BOWMAN, Berlin, Ont.

PLEASE MENTION FARMER'S ADVOCATE.

Currelly, Fullarton; R. Eastwood, Mimico; John Kelly, Shakespeare; Andrew Thompson, Fogus; J. K. Campbell, Palmerston; J. C. Spell, London; G. B. Armstrong, Teeswater; John Gibson, Denison; C. E. Wood, Freeman; Jos. Gaunt, St. Helen's; J. M. Gardhouse, Highfield; John Laidlaw, Wilton Grove; Andrew Whitelaw, Guelph; Wm. Whitelaw, Guelph; R. C. Martin, Marysville; Alex. Smith, Maple Lodge; A. Waidie, Maidstone; Prof. Craig, Ames, Iowa; John Marshall, Cass City, Mich.; J. W. Murphy, Cass City, Mich.; Prof. Curtiss, Ames, Iowa; D. C. Graham, Cameron, Ill.; Geo. Penhale, Exeter; Jas. Snell, Clinton; Jno. Wright, Chesley; Prof. Grisdale, Prof. Day; M. Campbell, Northwood; D. Lillio, Galt. Cotswolds.—Jas. Russell, Richmond Hill; Wm. Thompson, Uxbridge; Thos. Teasdale, Concord; D. McRae, Guelph; H. Rawlings, Ravenswood; Val. Ficht, Oriel; J. C. Snell, London; T. Hardy Shore, Glanworth; Geo. Weeks, Glanworth; Wm. Ward, Uxbridge; W. G. Laidlaw, Wilton Grove; Wm. Rae, Arkell; Joseph Ward, Marsh Hill; John Park, Oriel; Jos. D. Davidson, Bellevue; A. Johnston, Greenwood; John Goodfellow, Maxville; Andrew Russell, Carville; A. J. Watson, Castlederg; Samuel Bailey, Atxeter; J. Slater, Buttonville; George Allen, Oriel.

Shropshires.—R. Gibson; G. P. Everett; J. Donworth, Paris; W. H. Beattie; A. Brown; Picton; R. Miller, Brougham; J. Hammer; Jas. McFarlane, Clinton; J. Campbell, Woodville; D. G. Hamner; Jas. Phinn, Hespeler; M. Levering, Lafayette, Ind.; A. Elliott, Galt; J. Dickin, Milton West; J. S. Thompson, Gas City, Ind.; Geo. Allen, Allerton, Ill.; W. G. Pettit, Freeman; D. J. Campbell, Woodville; G. Phinn; Charles Calder, Brooklin; H. N. Gibson, Delaware; Geo. Hindmarsh, Ailsa Craig; C. W. Gurney, Paris; W. E. Wright, Glanworth; J. Miller, Brougham; H. Hamner, Burford; Prof. Curtiss, Ames, Iowa; Prof. McKerrrow; Prof. G. E. Day; S. Hagar, Plantagenet; Jos. Barnet, Rockland; Geo. T. Telfer, Paris.

Hampshires and Suffolks.—Henry Arkell, R. Gibson; I. Hillier, Thornton, Mich.; John I. Gordon, Mercer, Pa.; John A. Craig; W. H. Beattie; James Bowman, Guelph; John Kelly, Shakespeare. Dorsets.—G. McKerrrow; John Hunter, Wyoming; James Bowman; Henry Arkell, Teeswater; Henry Arkell, Arkell; M. N. Empey, Napanee; E. O. Denton, Somerset, N. Y.; Herbert Hamner; R. Bailey; R. H. Harding. The judges named for the principal fairs were: -om

Leicesters.—Toronto Industrial—James Snell, Clinton; Jos. Gaunt, St. Helen's; referee, John Laidlaw, Wilton Grove. London—William McIntosh, Burgoyne; reserve, W. Parkinson, Eramosa. Ottawa—John Orr, Galt. Brantford—W. Whiteley, Guelph. Director, W. Whiteley, Guelph. Cotswolds.—Toronto Industrial—G. Weeks, Glanworth; W. Thompson, London—J. Russell, Richmond Hill; W. G. Laidlaw, Wilton Grove. Ottawa—V. Ficht, Oriel; J. D. Davidson, Belhaven. Director, D. McCrae. James Oxfords.—Toronto Industrial, Arkell, Tolton, Walkerton; Henry Arkell, Arkell, London—W. H. Arkell, Teeswater; J. L. Tolton, Walkerton. Shropshires.—Toronto—George Allen, Allerton, Ill.; George Hindmarsh, Ailsa Craig; reserve, W. H. Beattie, Wilton Grove. London.—J. C. Duncan, Lewiston, N. Y.; reserve, Geo. Phinn, Hespeler, Ont. Ottawa—R. Gibson, Delaware; reserve, A. Elliott, Galt. Fat Stock Show—George McKerrrow, Sussex, Wis.; reserve, Prof. Curtiss, Ames, Iowa. Oxfords.—For Toronto—James Pettit, Hensall; L. Parkinson, Greenwood. London.—Earnest Parkinson, Eramosa; Hardy Shore, Glanworth. F. W. Hodson, the retiring secretary, was elected a life member of the association.

GOSSIP.

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

During a recent visit to Mr. Gibson's farm near Bowmanville, Ont., we were shown over his stock of Tamworth and Berkshire pigs, and found them in excellent health and vigorous form. Among the Tamworths we saw the pair of George-bred sows, Rosa 2nd and Katie 2nd, by Oak Hill Hugo 544, and dam Pork Packers' Favorite 775, running to the Countess strain, which farrowed early in October, and from their Tamworth type early in their offspring. Representatives of Nimrod (imp.) are also in the list, which are well known. A choice litter of eleven smart pigs have been reared from Hannah, by Algernon, and out of Pickering Queen. Their uniformity would impress one at sight. The young stock boar, King George, by Whitacre Prince, and out of Rosy B, promises to mate well with the type of sows Mr. Gibson has, and his strong Whitacre characteristics must act beneficially upon the herd. To the Berkshire herd was lately added the very choice young boar, Duke of Snelgrove 6117, by Dictator, by Morning Mist, and running to Highclere and Enterprise, and in him we found a capital young animal, possessing all the requisites of the modern type of Berkshire without having lost the early-maturing qualities so prominent a feature in the breed. As he has been placed at the head of the herd, the former stock boar, O. A. C. 259, by Prince Lee, will be offered for sale, and as he has developed into a splendid animal, will make a useful mark for some breeder requiring new blood. Among the matrons are descendants of such strains of note as Baron Lee 4th, Enterprise, and Varina Duke, and as Mr. Gibson is increasing the capacity of his pens, he will be in a better position than ever to fill orders for good stuff with the aid of his new purchase. Watch his offerings.

Summer Hill Herd

HEADQUARTERS FOR THE IDEAL BACON HOG.



The largest herd of pedigreed Yorkshires of the large English type in Canada. Purity of breed, bunch of Shropshire Ram Lambs for fall delivery; extra well covered; imported foundation. CHAS. LAWRENCE, -o Collingwood, Ont. Young stock all ages, sired by King George 42nd, and from prizewinning matrons. Mammoth Bronze Turkeys and White Wyandotte chickens. Write for prices. Satisfaction guaranteed. D. J. GIBSON, BOWMANVILLE, ONT.

NORTH BRUCE HERD

Improved Large Yorkshires.

Boars fit for service, sows ready to breed, and young stock ready to ship, for sale. Orders booked for spring pigs. Write for prices.

WM. HOWE, Pt. Elgin St., G. T. R. -o NORTH BRUCE.

Springridge Poland-Chinas

Now offering the 2-year-old sire, Blackmoore, and a few of his young females, and booking orders for young stock from the royally-bred Goldbug, lately added to the herd.

WM. J. DUCK, MORPETH, ONT.

OXFORD HERD OF POLAND-CHINAS

The home winners of the Having again won the sweepstakes at Toronto, London, Ottawa, and Provincial Fat Stock Show, we are offering again young boars and sows of superior quality; bred along the same lines as our winners.

W. & H. JONES, OXFORD CO. -o MT. ELGIN, ONT.

DUROC-JERSEY SWINE.

We have a fine lot First-Class Stock of all ages and either sex. Address, -om TAPE BROS., Ridgetown, Ont.

REGISTERED CHESTER WHITE PIGS,

Eight weeks old, at \$5.00 each. Prizewinning Shorthorn and Jersey bull calves. Prices reasonable.

F. BIRDSALL & SON, -o BIRDSALL, ONT.

A Few

Young BOARS yet for sale at a bargain; also two young sows (due to farrow about Jan. 20), one of them out of the same litter as the first prize (dressed carcass) Chester Whites at the Provincial Fat Stock Show, which dressed 82 pounds per 100 pounds live weight—the highest in the show. Also Dorset and Shropshire sheep. For particulars write -om

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

Tamworths.

4 choice young boars four months old; fine, lengthy, deep-sided, strong-boned fellows, of the true bacon type. Bred from prizewinning stock. For prices write

W. C. SHEARER, BRIGHT, ONT.

OAK HILL HERD OF TAMWORTHS.

2 sows in farrow; 2 boars, 6 mos. old (prizewinners). Also young pigs, S. and W. Wyandottes, P. and R. ducks for sale. Prices reasonable. R. J. & A. LAURIE, Wolverton, Ont.

Goldspring Herd Tamworths.

First prize herd at Toronto, 1899, was bred at Goldspring. Young boars and sows out of Della and Blain's Sunshine, fit for service. Will quote special prices for the next six weeks. Young stock for sale at all times.

NORMAN M. BLAIN, Goldspring Farm, St. George, Ont.

Spring Brook Herd of Tamworths.

Great opportunity for choice stock. A number of choice young pigs sired by British King, first prize Toronto Industrial, 1899, and also by Royal winner, Whitacre Crystal. Pairs and trios not akin. Now is your time. Send for catalogue. Stock of all ages for sale.

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TAMWORTH BOARS AND SOWS

From Elliott, Bell and Nourse foundation. A choice bunch of Shropshire Ram Lambs for fall delivery; extra well covered; imported foundation.

CHAS. LAWRENCE, -o Collingwood, Ont.

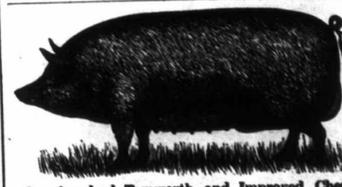
Tamworths.

Young stock all ages, sired by King George 42nd, and from prizewinning matrons. Mammoth Bronze Turkeys and White Wyandotte chickens. Write for prices. Satisfaction guaranteed.

D. J. GIBSON, BOWMANVILLE, ONT.

Tams. for Sale.

Aged boar, Spruce Grove Model 707; one March boar; one March sow, bred to Starlight (imp.); 12 boars and sows 2 to 4 months, sired by Starlight (imp.), at reduced prices. JOHN HORD & SON, Parkhill, Ont.



One hundred Tamworth and Improved Chester White Spring Pigs of a true bacon type, our herd having won the best prizes offered at the leading exhibitions throughout Ontario and Quebec for the past ten years. Stock for exhibition purposes especially. We pay express charges between stations, and guarantee safe arrival of all stock shipped. Pairs furnished not akin. Write for prices.

H. GEORGE & SONS, Grampton P. O., Ont.

TAMWORTH BOARS

Fit for service. Young sows ready to breed. Fall pigs, in pairs not akin. Prices low, to reduce stock.

John Fulton, Jr., Brownville, Ont.

Bargain Days in Tamworths and Yorkshires

For next 30 days we are going to sell our surplus stock of Tamworths and Yorkshires at very low prices to make room for young litters. They include half a dozen Tamworth Boars from 5 to 12 months old, most all prizewinners. Some grand sows. Also half a dozen Yorkshire Boars and Sows; all of excellent quality and breeding. Write us for prices and particulars at once. COLWILL BROS., Newcastle, Ont.

TAMWORTHS

Of the Most Approved Type.

WE have a dozen vigorous sows to farrow this spring to O. A. C. 419, and can book orders for right good stock. Our stock was not only represented at the Illinois State Fair, but won the best prizes offered in '98. We also have a choice imported Berkshire sow three years old, and a twenty-months boar for sale.

P. R. HOOVER & SONS, GREEN RIVER, ONT.

TAMWORTHS.

One extra good yearling boar by Amber Luther Boars and sows ready to mate, and fall pigs (pairs not akin).

J. C. NICHOL, -o HUBREY P. O., ONT.

Chatham HERD OF Tamworths

1 two-year-old boar, and a one splendid pig 3 months old, by Whiteacre Lad (imp.), and by the old show boar, Sambo; also some good pigs, fit to wean. These are extra choice ones. For full particulars write: -o

J. H. SIMONTON, Box 304, CHATHAM, ONT.

TAMWORTHS AND COTSWOLDS.

I have a few very choice things to offer this season, fit to show, by Spruce Grove Model and Dorchester Hero, both Toronto winners, and out of my sweepstakes sow. Also a choice bunch of splendid, strong, well-covered Cotswold Lambs.

R. O. MORROW, Hilton, Ont.

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 MOST WIDELY ATTENDED IN AMERICA.
 31st year. SEND FOR CATALOGUE.
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 The largest and strongest school in Canada.
 Our calendar tells you why. Write for it.
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 Students enter any time. Increased teaching staff. The best that can be had is given. Write for particulars.
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 A large, popular and progressive school. Our catalogue is a gem. Write for one. It will interest you.
W. J. ELLIOTT, Principal.

EGGS. It pays to get the best. We have them in L. and D. Brahmas, B. and W. Rocks, W. Wyandottes, Black Minorcas, and Indian Game, at \$1.25 per setting.
JACOB B. SNIDER, German Mills.

Mammoth Bronze Turkeys
 S. G. Dorkings, B. P. Rocks, S. C. B. Leghorns, Black Minorcas. Over 100 grand young birds from winning strains. Pairs and trios mated not akin.
T. & H. SHORE, WHITE OAK, ONT.

GOSSIP
 Last week W. L. Hawkshaw & Son, of Glanworth, shipped a very choice carload of Shropshire ewes to the West, and also report having made some recent sales of Tamworth pigs. They offer six young sows ready to breed now.

Mr. F. W. Taylor, breeder of Ayrshire cattle, Wellman's Corners, Ont., writes:—Last spring I exchanged my stock bull, Douglas of Loudoun, for Dewey No. 10419, bred by Wm. Stewart & Son, Menie; sired by Dainty Lad No. 2245; gr. sire Silver King (imp.) No. 1128; dam Mayflower—1098. Most of my next spring calves will be sired by him. I sold two yearling bulls to A. T. Donald, Burnbrae; 1 yearling bull to Urbane Heath, Harold P. O.; 1 yearling bull to Richard Ballie, Harold P. O.; 1 bull calf to John Little, Burnbrae; 1 bull calf to Mr. Clement, Thamesford, Ont.; 1 bull calf to Mr. Clement, Rawdon; 2 heifer calves to John Reid, Carsonville, Michigan, U. S.; and others.

Henry Stevens & Sons, Lacona, N. Y., write:—Sales at Brookside continue good. We have been breeding Holstein-Friesians for 23 years and sales were never better than this fall. Milk, butter and cheese have been bringing good prices, and there appears to be a better feeling among breeders and dairymen than for some years past. The victories our breed have won in competitive Fair ground butter tests all over the U. S. and in Canada is demonstrating year by year the value of our breed, not only as milk producers, but also butter producers as well. One of the most important sales we have made of late was the young bull, Brookside Hengerveld Paul, to Henry Wisler, of Columbia, Pa. This bull is a son of Netherland Hengerveld. It will undoubtedly be remembered by most of your readers that this cow made more butter in her week's official test than any cow ever yet officially tested, viz., 26.66 lbs. Her milk averaged during the week of this test 3.92 per cent. butter-fat. Mr. Wisler's herd contains about 40 head, many of them exceptionally well bred animals. Among the number is a daughter of our great cow, Helena Burke. It will be remembered that Helena Burke won the seven-week's official test open to all breeds at the Trans-Mississippi Exposition in 1898 after travelling thousands of miles and being exhibited at five State Fairs before the test commenced. Her official test is 25.45 lbs. of butter in seven days, 98½ lbs. of milk in one day, and 634½ lbs. in seven days, which is the largest week's milk record made by any cow in an official test.

A. D. M'GUGAN'S SHORTHORN CATTLE AND LINCOLN SHEEP.

Consistent with the demands of the times, the more energetic see opportunities along livestock lines according to their own ideas and facilities. Mr. A. D. McGugan, whose farm is near the village of Rodney, in Elgin Co., Ont., foresaw the possibilities with Shorthorn cattle at the right moment, and acting upon his judgment, laid the foundation with a class which should not only do himself, but the constituency in which he resides, credit, the foundation stock selected being one whose strong typical characteristics are bound to win in fact, especially when mated along right lines, and from more recent purchases which Mr. McGugan advises us of we are convinced that he has started in genuine earnest, which only requires that persistency of purpose necessary for a successful career, which we are persuaded he possesses. During the latter part of 1887, Mr. McGugan purchased a select bunch of females from Messrs. B. Snary & Son, Croton, of the Duchess of Boston tribe, tracing through the Lady May family, and whose pedigree (page 503, Vol. 1) shows them to have come through the large, well-developed Kirklevingtons (Imp.) to Boston cow (Imp.) 48, by Sir Charles (1440), a family of which it may be said that early maturity, thick-fleshing and deep-milking qualities are coupled with splendid uniformity. Of the 9 in-calf cows, 3 were bred to Scottish Chief, by Scottish Pride (Imp.), and the balance to Cleopatra's King, by War Eagle. At present Mr. McGugan has on hand a choice lot of young stuff under two years old, of which he informs us the young bulls, from six to ten months, are an exceptionally promising bunch, and which he considers good enough to head pure-bred herds. Another move recently made, from which we are warranted in predicting a successful career, was the purchase of the grand Scotch-bred stock bull, Abbotsford, to stand at the head, from the herd of Mr. H. Smith, of Hay, Ont., and from the satisfactory results obtained from Abbotsford in Mr. Smith's herd, we consider Mr. McGugan has made a wise selection. Abbotsford has not only proven himself capable of winning the leading shows in Canada individually, but at the Toronto Exhibition, 1899, won the first prize of \$50 for best bull and four of his get. His progeny have proven themselves quite equal to the same task, the latest evidence of which is the victory of the great steer, Free Trade, a son of Abbotsford, winning the championship over all breeds at the Fat Stock Show at London; and from the fact that a member of the same family, Young Abbotsford, was the World's Fair champion at Chicago, it is evident that this great sire owes his excellency of Shorthorn characteristics to the wise judgment of the developers of his race. Mr. McGugan has also taken up Lincoln sheep, as his advertisement shows, and offers a few choice young things of either sex from imported parentage.

EGGS FOR HATCHING: Brahmas, Games, Minors, Dorkings, Hamburgs, Houdans, Poland, Leghorns, Ducks, Geese, and Turkeys. —om For prices write.
WM. STEWART & SON, MENIE, ONT.

75 MAMMOTH BRONZE TURKEYS

 Sire winner at London Poultry Show; dam from 42 lb. tom. Also S. G. Dorkings.
T. Hardy Shore,
 GLANWORTH, ONT.

THE STRONG FENCE

 Made of large wires, best spring steel, heavily galvanized. Provision made for expansion and contraction, so it is proof against all animals and all changes of weather. As nearly everlasting as anything on earth can be.
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 Sold by our agents everywhere. If you cannot find an agent in your town write direct to
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 If you are a workman or a clerk, and feel that you are like a cog in a wheel, going always but making no progress, write and learn how to prepare yourself for a really desirable position.
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 For FARM and GARDEN.
 Our stock includes all that is best in
Garden and Field Roots, Flower Seeds and Flowering Plants, Grasses, Clovers, and Seed Grain.
 Illustrated Catalogues mailed free on application.
WILLIAM EWING & CO.,
 SEED MERCHANTS,
 142 MCGILL ST., MONTREAL.
Farmers Intending to Seed Corn Note This.

Mineral Extract is the cheapest and best ingredient for coloring corn to prevent crows from picking up corn when planted. I had 14 acres of corn last year on my 133-acre farm and had the seed all colored, and had not one stalk destroyed by crows. I also claim it as good as a heavy coat of manure for making corn grow rich, feeling so well pleased with it that I have taken the agency for it. Farmers who wish to buy only a small box should send in their orders not later than Feb. 1st. Large box colors 60 bushels; price, \$5.00. Small box colors 20 bushels; price, \$2.50; will be sold for \$2.00 if ordered by Jan. 15th. Every box of Extract guaranteed to give satisfaction or money refunded.
ANDREW KAUFMAN, Fergus, Ont.

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 American Shropshire Registry Association, the largest live stock organization in the world. Hon. John Dryden, President, Toronto, Canada. Address correspondence to MORTIMER LEVERING, Secretary, Lafayette, Indiana. —om

LIVE STOCK AUCTIONEER.
 The undersigned is prepared to conduct pure-bred auction sales. 20 years' experience. References: John I. Hobson and Alfred Stone, Guelph; Jas. Hunter, Alma, and Mossom Boyd, Bobcaygeon. Thomas Ingram, Care Mercury Office, Guelph, Ont. —o

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 PAYS BEST. Always strong and vigorous and breeds healthy stock. We ship only farm raised stock. Get our new Poultry Guide and make big money with poultry. Worth \$25, but sent for only 15c.
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Mammoth Bronze Turkeys
 Chester White swine. 20 Shropshire ewe lambs.
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 The managers of these institutions invite applications from farmers and others for boys and youths, who are being sent out periodically, after careful training in English homes. The older boys remain for a period of one year at the Farm Home at Russel, during which time they receive practical instruction in general farm work before being placed in situations. Boys from eleven to thirteen are placed from the distributing home in Winnipeg. Applications for younger boys should be addressed to the Resident Superintendent, 115 Pacific Avenue, Winnipeg, or P. O. Box 970; and for older boys, possessing experience in farm work, to Manager, Dr. Barnardo's Farm Home, Barnardo, Man.

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 The greatest fortunes have been made through speculation in Stocks, Wheat or Cotton.
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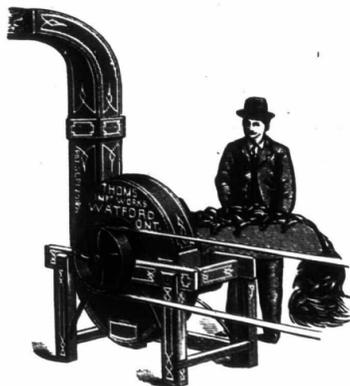
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THE SWISS-AMERICAN CO., 4 Opera Block, Or Express Bldg., WINDSOR, ONT. DETROIT, MICH.

HANDY STOCK LABELS, \$2 PER HUNDRED AND UP
 according to the number of letters and figures required. Also handy punch and nippers to insert the same. The better support we get the cheaper we can make them. Good reference and honest dealing. Send for circular and price list.
R. W. James,
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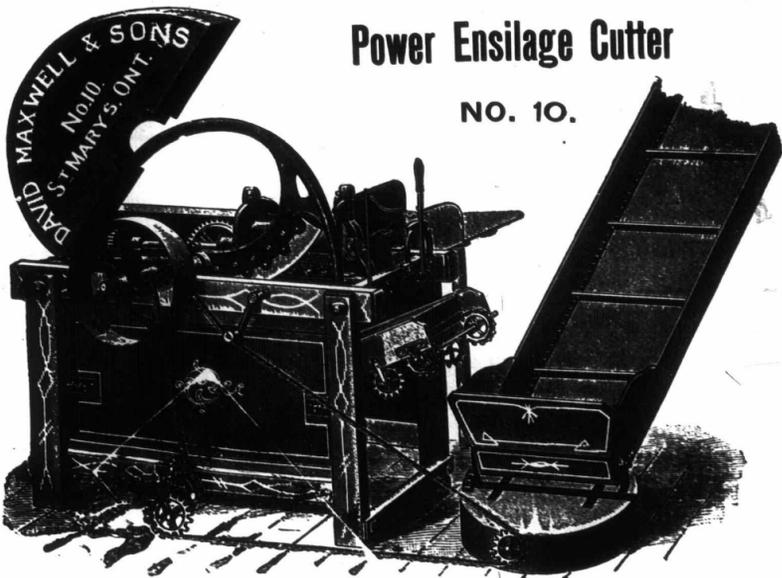
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Cornstalks cut with the Ripper will fatten stock quickly. All that is LATEST and BEST in feed cutters and tread powers. Place your orders now, prices must advance before next fall.

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Latest Improved Triple Geared Cob and Grain Grinder. A Powerful Two Horse Machine. Grinding Rings go four times around to one turn of team; grind at a rapid rate. Has been thoroughly tested and proves to have no equal in any respect. Sold direct to farmer.

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PLEASE MENTION FARMER'S ADVOCATE.

Dominion Swine Breeders' Association.

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

Prof. G. E. Day, of Guelph Agricultural College, with the aid of charts showing illustrations of typical bacon pigs, and of a bacon side, showing the various cuts and prices obtained for same in Britain, gave a valuable address on bacon type, which we summarize along with a scale of points recommended by him in our stock department. During the meeting the retiring secretary, Mr. F. W. Dodson, was read an address, signed by the presidents and secretaries of the Dominion Live Stock Breeders' Associations, congratulating him upon his promotion to a wider field of action as Live Stock Commissioner, and expressing an appreciation of the magnitude and excellence of the work accomplished by him in organizing and promoting the various associations with which he has been connected. Along with the address, in illuminated form, Mr. Hodson was presented with a full cabinet of solid silver table cutlery of very handsome design, as well as a beautiful granite clock, presented by a number of personal friends.

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

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

EXPERT JUDGES RECOMMENDED.

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

Suffolks and Essex.—Wm. Jones, Geo. Green, Thos. Teasdale, Jas. McGavin, R. H. Harding; Jas. Main, Milton; D. DeCoursey, Bornholm; C. W. Yapp, Brantford; G. B. Hood. Duroc-Jerseys.—Jos. Featherston, M. P., Streetsville; Jas. Bray, Portage la Prairie, Man.; Wm. Jones, Geo. Green, Thos. Teasdale, R. H. Harding, D. DeCoursey, H. Jones; W. Tape, Ridgetown; H. George, Crampton; W. E. Butler, Dereham Centre; Geo. Bennett, Charing Cross. Poland-Chinas.—Thos. Teasdale, Jos. Featherston; J. H. Snary, Croton; Jas. Main; Capt. A. W. Young, Tupperville; Geo. Green; Wm. Smith, Fairfield Plains; Wm. Jones; Oliver

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

CANCER CURED WITHOUT KNIFE OR PLASTER. FULL PARTICULARS FREE. F. STOTT & JURY, Bowmanville, Ont.

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grow paying crops because they're fresh and always the best. For sale everywhere. Refuse substitutes. Stick to Jerry's Seeds and prosper. 1000 Seed Annual free. Write for it. D. M. FERRY & CO., Windsor, Ont.

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Registered 1898. Nos. 30, 45 and 60.



With pleasure we draw the attention of our farmers to our

EXCELLENT MODERN FEED BOILER, which is constructed on new lines. It has a strong and well-devised Cast Iron Front and Back, with hagged out Flue and Collar Top, so as to receive a straight pipe, which is preferable to the elbow attachment. The sides are made of Steel plate with a band at the bottom. The Feed Door is large and the body of the Furnace is very roomy, calculated to admit the roughest kind of wood. The Boiler is designed to set on the ground or brick foundation. Without doubt this is the Best, Cheapest, Most Economical and Practical Agriculture Furnace in the market. Already it has commanded a large sale.

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NO DUTY TO PAY NOW

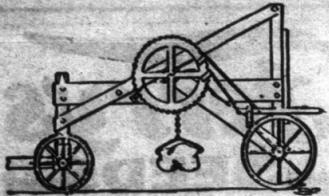
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TWO hundred bushels of Potatoes remove eighty pounds of "actual" Potash from the soil. One thousand pounds of a fertilizer containing 8% "actual" Potash will supply just the amount needed. If there is a deficiency of Potash, there will be a falling-off in the crop.

We have some valuable books telling about composition, use and value of fertilizers for various crops. They are sent free.

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Has an 18,000-lb. Lifting Capacity, which is Unequaled.

It lifts stones and deposits them 5 feet high in fences. Clear your land for reapers and mowers at a small cost, and build durable fences of the stones and stumps. The lever lifts and holds the stone in position for removal. Stone can be laid just where you want it. One man can raise a stone one team cannot draw, and do it quick and easy. Agricultural societies and farmers' clubs are buying them for sections. Price moderate.

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CUTS BY ALL PROCESSES
LIVE STOCK A SPECIALTY

GOSSIP.

W. W. Everitt, breeder of Jersey cattle, Chatham, Ont., writes:—Jerseys doing well; am getting enquiries from all parts of the Dominion; have just sold a handsome young bull to Thomas G. Dobbs, of Port Arthur, Ont.; he was sired by my noted stock bull, Handsome Roter, bred by Mrs. E. M. Jones. He is leaving some very fine stock, of which I have a few young bulls for sale at present, which I am offering at very low prices, to make room for increasing stock. The dam of the young bull is Charity of Glen Rouge, by 100 Per Cent., out of Cheerful of St. Lambert 2nd (23 lbs. 2 oz. butter in 7 days), and I think Mr. Dobbs has made no mistake in his purchase. I expect to ship another to British Columbia in a few days. I have received good results from my ad. in your paper, showing your vast circulation.

COMING CONVENTIONS.

The following are the dates and places of conventions to be held this winter: Eastern Ontario Cheese and Butter Association, at Madoc, Jan. 10th, 11th and 12th. Western Ontario Cheese and Butter Association, at Stratford, Jan. 17th, 18th and 19th. Cheese and Butter Makers' Association of Western Ontario, at Ingersoll, Jan. 31st and Feb. 1st. Ontario Poultry Association and Show, at Peterboro, Jan. 9th, 10th and 12th, 1906.

Hereford Breeders' Association.

The ninth annual meeting of the Canadian Hereford Breeders' Association was held in the Tecumseh House, London, Ont., on Dec. 12th; Mr. Warren de Green, of Toronto, chairman, in the absence of the president, Mr. H. D. Smith. Mr. Green complimented the meeting on the improved condition of Hereford breeding, the sales of the year, and the financial condition of the association. He was glad to welcome the first volume of the Hereford Book, a most important matter in the interests of the association.

The annual report of the secretary-treasurer, Mr. Wade, referred to the unprecedented advance in Hereford interests in the United States during the past year. Vol. I. of the new Hereford Herd Book contained the pedigrees of 1,084 bulls, and 1,403 cows; total, 2,487. During the year 276 Herefords were registered, and 91 transferred, and the membership numbers 41. The receipts of the year amounted to \$325.50 leaving cash on hand, \$70. Report adopted.

Moved by M. H. O'Neil, seconded by A. Rawlings, "that the association press upon the Dominion Live Stock Commissioner the importance of at once taking steps to secure direct shipping communication with the Argentine Republic, so that our breeders can have the opportunity of shipping their stock thither at as low a cost as possible, and so secure a share of the good market for registered stock which at present exists in that country."

Carried.
Officers were elected as follows: President, Walter Macdonald, Toronto; Vice-President, W. H. Hunter, "The Maples"; Vice-President for Quebec, R. H. Pope, for Manitoba and N.-W. T., J. E. Smith, Brandon; for Nova Scotia, W. W. Black, Amherst; for British Columbia, F. Kirkland, Westham Island. Directors—H. D. Smith, Compton, Que.; A. Rawlings, Forest; A. S. Hunter, Durham; M. H. O'Neil, Southgate; J. E. Govenlock, Forest; John Shrigley, Allendale; Geo. Brent, Warwick West; Mossom Boyd, Bobcaygeon. Secretary-Treasurer, Henry Wade. Delegate to Industrial Exhibition, Walter Macdonald; to Western Fair, Alvin Rawlings; Ottawa Exhibition, Henry Wade; Winnipeg Industrial, James Sharman, Riddburn, Man. The following were recommended as expert judges for the leading exhibitions: A. Rawlings, Warren de Green, R. J. Mackie (Oshawa), A. S. Hunter, Caleb Rawlings (Ravenswood), M. H. O'Neil, and H. D. Smith. Auditor, C. F. Complin, London.

Persianic Sheep Dip and Animal Wash.

A NON-POISONOUS LIQUID "DIP."

Kills Ticks. Kills Red Lice.
Heals Wounds.

Greatly Improves quality of
WOOL.

For Horses, Cattle, and Pigs.

Removes all insects. Thoroughly
cleanses the skin.

Leading "STOCKMEN" endorse it as
the CHEAPEST and most EFFECTIVE
"Dip" on the market.

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DRUGGISTS, 50 cents PER QT.
Special rates in larger quantities.
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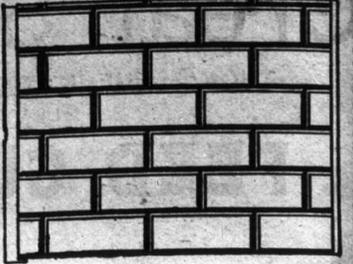
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LIMITED,
STOUFFVILLE, ONT.

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Improve an Old Building

BY COVERING IT WITH OUR

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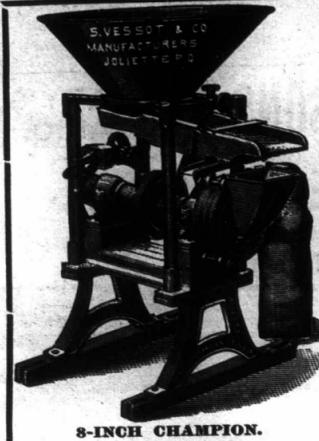


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It is specially valuable for use on all farm buildings, being easily applied, and fire, cold and damp proof.

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DEAR SIRS,—Please find enclosed settlement in full for 12-inch Champion Model '99 Grinder (Sectional Plate Grinder). I am perfectly satisfied with it, and consider it worth its cost twice over, more than any solid plate mill which I have used for five years. I have ground one thousand bags before sharpening the plates and five hundred since, and they are doing well yet. Will let you know their limit when worn out. (Signed) J. S. ZERR.
Wellesley, Ont., Dec. 7, 1899.

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Sole Manufacturers,

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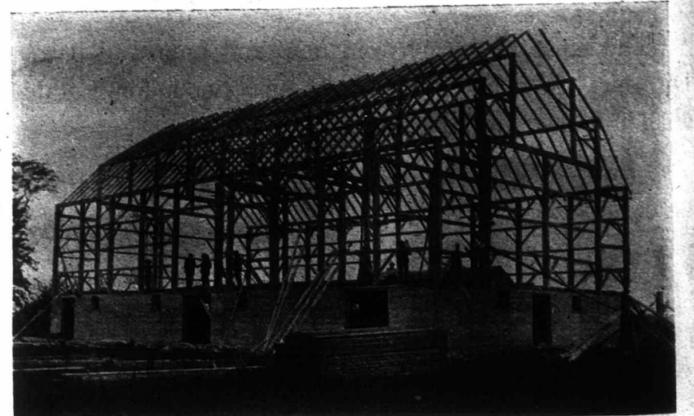
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New Basement Barn

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Walls and Floors Built with

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BARN AS IT APPEARS IN COURSE OF CONSTRUCTION SIZE OF BASEMENT WALLS, 51 ft. x 100 ft. x 9 ft. high.

What Mr. T. L. Pardo says:

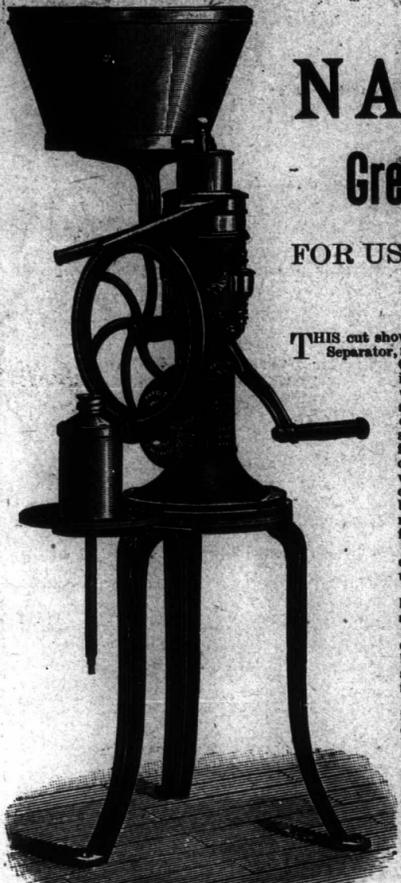
CEGAR SPRINGS, KENT COUNTY, ONT., NOV. 21, 1899.

ESTATE OF JOHN BATTLE, THOROLD, ONT.:

DEAR SIRS,—I write to say that we have now fully completed the stabling in my new barn, and I am well pleased with the work done throughout the whole building, which is 54 x 100 feet, with basement walls 9 feet high, and a silo 11 x 14 feet, same height as walls, built in a corner of the basement wall, there being a concrete floor throughout the whole building. We used in all 200 bbls. of your Thorold Cement in this work, with the result that our walls and floors are as hard as rock itself. The work was all done under the supervision of your travelling agent, Mr. Marcus A. Ware, a man who appears to be completely master of his trade, and who is always in a hurry, but never slights his work. I send you photo of building under separate cover. Yours truly, T. L. PARDO.

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Estate of John Battle, Thorold, Ontario.



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FOR USE IN FARM DAIRIES

THIS out shows the "National" No. 1 Hand Power Cream Separator, manufactured by The Raymond Manufacturing Company (Limited), Guelph, Ont. Since the introduction of this machine, it has taken so well that we have not been able to supply the steadily increasing demand. It has proved a decided success from the start. We have consequently been obliged to increase our manufacturing capacity, and have put in a number of the most improved machines obtainable, by which we are now in a position to more than double our former output. No expense is being spared to make the "National" a perfect machine, and we believe we have succeeded so far as to claim that it has no equal for:

- 1st. Closeness of Skimming, and smooth, even condition in which it leaves the cream under all circumstances.
- 2nd. Easy Cleaning. It takes only about half the time that other Separators require, on account of the few pieces there are to handle.
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A trial of the "National" is all that we ask in order to ensure a sale to an intending purchaser. The sale of this machine for the Province of Ontario is in the hands of

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whose exhibit at the Toronto Industrial show this year, including the "National" Separator, took first prize. For further particulars enquire of

"NATIONAL" NO. 1 HAND POWER.
Capacity, 330 to 350 lbs. per hour.

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Double-Acting Perpetual Hay and Straw Press.

In buying a Victor you will have a press that is an all-steel baler on the inside, supported with a strong wooden frame on the outside, a combination that cannot be improved upon in the construction of a baling machine. The Victor is by far the most durable baling machine ever made or sold. Write the

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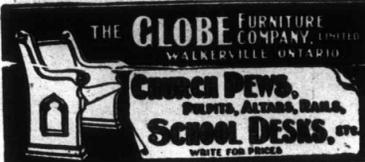
For MAPLE SYRUP and SUGAR. Has a corrugated pan over firebox, doubling boiling capacity and saving fuel; small interchangeable syrup pans (connected by siphons), easily handled for cleansing and storing, and a perfect automatic regulator, which secures rapid and shallow evaporation, and produces the best quality of syrup. The Champion is a perfect evaporator for

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are positively warranted to last TEN YEARS, without repairs, and are guaranteed to **OUT-HATCH**, during three trials, any other make of incubator on the market—bar none. **THIS, OR YOUR MONEY BACK.** Used exclusively at Experimental Farms, Guelph and Ottawa; also six American Experimental Stations. Daniels, the universal provider in the Poultry Supply business, has the sole agency for the Cyphers Incubators and Brooders for Canada. Our list of Poultry Supplies are too numerous to mention here, but just drop us a line and state what you require. We handle nothing but the best. Satisfaction every time, or money refunded. Mention *Advocate*, or C. J. Daniels, 221 River St., Toronto, Ont.

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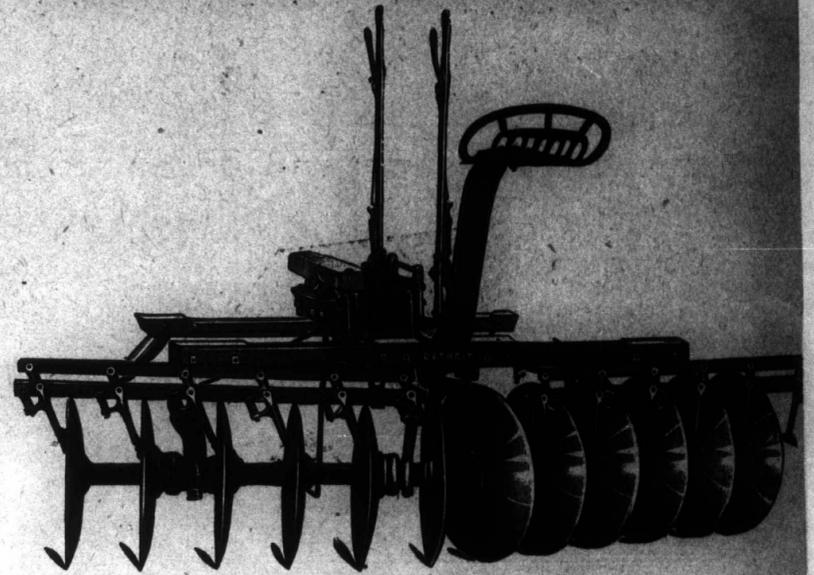
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99.99 to 100 per cent. of pure Cane Sugar, with no impurities whatever.

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Prof. of Chemistry and Public Analyst, Montreal.

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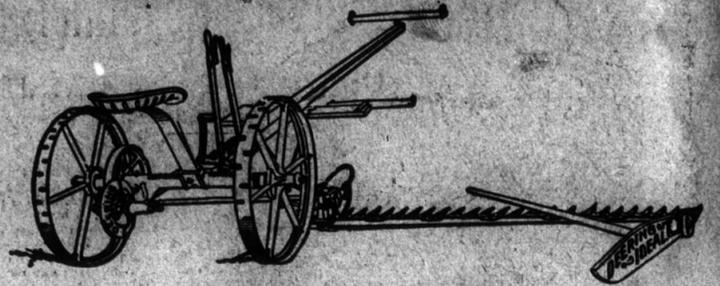
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The only Double Root Cutter Manufactured.

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

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are so convenient to the driver's seat that any range of adjustment can be readily obtained with but slight pressure.

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