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JAMES MILLS, M.A., President. Guelph, November, 1901.

ALWAYS MENTION THE FARMING WORLD WHEN WRITING ADVERTISERS.

TORONTO, ONT

The Farming World

For Farmers and Stockmen

VOL XIX

More Room Needed.

O say that the eighteenth Provincial Winter Fair, held at Guelph last week, was a success, is to put it very mildly, indeed. It was a great success and ranks as the greatest show of its kind ever held At the Interon this continent. national Show at Chicago the week previous there was a much larger display of stock and a show of horses, cattle, sheep and swine that has never been excelled in America. But there were none of the educational features that mark the Ontario show as distinct and preeminently superior as a medium for conveying practical information to the farmer on the selection, breeding, feeding and caring for the animals kept on the farms. And the rush of visitors to obtain admission to the lectures is an evidence that this educational work is appreciated.

That the Winter Fair is growing in popularity throughout the country is shown by the immense crowds that visited it this year. The gate receipts show an increase of fully two-thirds over the previous year. Farmers were in attendance from all parts of Ontario, while nearly all the Provinces of the Dominion were represented by someone. People came for information and not for amusement, and they got it. A number of institute workers were present at all the meetings, preparing to carry some of the good things said to the farmers into the

number of institute workers were present at all the meetings, pre-paring to carry some of the good things said to the farmers into the outlying parts of the Province. But how this fair has grown. Who would have thought a year or two ago that the splendid build-ing erected by the city of Guelph, would so soon become too small to accommodate all departments of the show. But such is the case, and the cry now is for larger ac-Before another commodation. year something must be done towards supplying better facilities for the lectures if this feature of the work is to continue to be success-ful. The lecture room this year did not begin to accommodate the people who desired to gain admittance, and besides was very badly tance, and besides was very bally ventilated. What is required, is one or two large auditoriums with facilities for bringing in live ani-mals to lecture upon. It may take some money to provide these, but the work accompliched is so but the work accomplished is so valuable that those responsible for it cannot afford to see it hampered because of insufficient accommodation. Then in the main building there was not sufficient room to do the judging properly. Nearly all the judges, especially in the

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sheep and swine classes complained of this, and of the difficulty of inspecting animals in such cramped quarters. Some provision should be made for this another year. The poultrymen also were crowded, so that the question of more room is not confined to one feature of the show. If the building were raised another story and the upper part made the same size as the lower floor it would relieve matters considerably. The sheep could very well be shown on the second floor and the poultry put up a story higher.

But any enlargement of the pres ent building in the way of increas-ing its height will not meet the needs of the lecture department. The proposition made at the public meeting that there should be two auditoriums erected seems like a very good one. In this connection the Hon. Mr. Ross proposed that if the Department of Agriculture at Ottawa would erect one his Gov-ernment would erect another, and we would advise the management to see that these semi-promises are made good before another year. If the two Governments can be induced to provide the extra room required we think it would be only a fair proposition for the city or the citizens of Guelph to provide better hotel accommodation for visitors. The citizens are deserving of greatest praise for their efforts to entertain the visitors this year. But where is this kind of thing going to end. If the show continues to grow as it has done during the past year or two, the increase of visitors each year may increase of visitors each year may be such that the good people of Guelph may get tired of throwing open their homes for a week to strangers. If the city would see strangers. If the city would see that a good first-class hotel is pro-vided before another year, or the present ones greatly enlarged and improved, they will be doing all that should be expected of them in

that should be expected of them in regard to this show. That something along this line is urgently needed every visitor to the show last week will admit. Every hotel was over crowded and scant accommodation in the way of meals and beds was very noticeable. Not only that the leading hotel in the place and the rendezvous of the stockmen for years increased its rates to \$2.00 per day instead of \$1.50 and gave slim fare in the way of meals, etc., at that. There is 'no class of our citizens more willing and able to pay for good accommodation than the stockmen when they can get it. But when they pay the rates of a first-class hotel they expect to get first-class accommodation, which they did not get in the case No. 25

referred to. We suppose, however, there will always be some drawbacks of this kind where large crowds are concerned. And yet, why let these things pass.

wny let tnese things pass. We will refer to some of these matters again. The show itself passed off without a hitch and both exhibitors and visitors went home well pleased. Exhibitors were particularly well pleased with the judging and we heard of no complaint on this score, a rather unique state of affairs. Elsewhere will be found full reports of the various departments of the show. A few reports are held over till next week.

Freight Rates.

OUR REPLY TO "VIATOR" HELD OVER.

Ow ng to so much space in this issue being given up to a report of the Provincigl Winter Fair our promised reply to "Viator" on the freight rates question has been held over for another week. The reply will, however, not lose anything by the keeping and we can promise our readers some new and important data on this subject, which will show that we had good grounds for the statements made a few weeks ago and to which "Viator" took such strong exception.

Enforce the Act.

As shown elsewhere, the discussion at the closing sessions of the Fruit Growers' Convention turned largely on whether the Fruit Marks Act recently passed by the Dominion Government should be enforced or not. We say emphatically that it should be enforced where fraud is shown and with all the power of Government authority at its back. Prof. Robertson, who has had immediate charge of the administering of the Act, has no doubt acted wisely in having the inspectors do some educational work in order that growers, packers and shippers of fruit might become acquainted with it. But now that these parties have had the opportunity of familiarizing themselves with the work and duties of the inspectors, there is no reason whatever for not bringing the Act into force, wherever fraud is detected. And we are pleased to note that such a course has been decided upon. While there are parties who may be influenced by educational work along the lines of honesty, there are many others upon whom nothing will have effect but the strict enforcement of the law. Dishonesty in fruit packing must be stopped and our export fruit trade placed on a more stable basis.

Our Western Letter

Agricultural College Commission—Farmers' Institutes-Big Crops

Winnipeg, Dec. 9th, 1901. We have had a little snow mixed with our weather during the past few days, and hopes are entertained that there may be sleighing for Christmas. The temperature continues unusually high for this time of the year-just below the freez-ing point. The very light snowing point. The very light snow-fall has given the youngsters unusually fine skating, for ordinarily, the ice is covered with snow early in the season. Startling rumors are current about snow blockades on Eastern railways. These are probably exaggerated, but at any rate, mails and trains from Ontario are unusually slow in arriving. Our people are flocking east and taking their families to spend Christmas with the old tolks. That is one of the advantages of wheat farming. Once the crop is marketed there is nothing to keep the hires a neighbor's boy to attend to the horses, packs his valise and goes off for a change of air, until seeding time.

The Agricultural College Commission left last week for an extended tour among the colleges. They go first to North Dakota and from there will proceed to Chicago, taking in the Fat Stock Show. Here they expect to meet the officials of many of the colleges of the States. They will visit Minmesota, Wisconsin, Iowa, Illinois, Michigan and perhaps other colleges, ending their trip at Guelph. From the Ontario College, of which one of the Commissioners is a graduate, they will probably secure more real assistance than from any other of the institutions they may visit. Though purely a provincial institution, the O. A. C. is a source of pride to every Canadian, for it typifies Canadian enterprise, progressiveness and advancement. Every scheme propounded for our College is more or less based upon the Guelph College. Those having the best understanding of the College adhere most closely to its lines. Doubtless our Commissioners will find there much to help them in their work.

Farmers' Institutes during the past week have not been an unqualified success. The meetings have been interesting to those who attended, but like prayer meetings and temperance lectures, the ones most needing their benefits do not attend. When, after an address, those present heartily endorsed the views of the speaker and pronounce their experience the same as his, the speaker may feel flattered, but he has not that satisfying sense of accomplishing something which might, under different circumstances, attend his efforts. How are those who need the institute to be drawn within its sphere of influence? That is a question puzzling out institute workers here. Of course, we have no superintendent of institutes as you have, to assume the burden, neither have we a large staff of speakers, such as the Agricultural College affords, to draw upon. Our speakers are mostly men well known to their audiences. They, or their presence, are no novelty. Perhaps a stranger would draw a better crowd.

What would we do were each and every year's crop of the magnitude of the present. During the past four of five years we have had average yields, but nothing phen-omenal. The result has been The result has been a constantly increasing acreage under crop. Last year the crop was a partial failure, and to even up matters, the acreage went up with a bound. This year we have what we always hope for, a bumper crop, and now we have it, we scarcely know how to take care of it. Nearly twenty thousand men came up from the East to help us, and even with this aid, only part of the crop was properly stacked when the October rains came on. A continuance of such yields would necessitate a decrease in acreage, unless some other source can be found from which to draw the necessary men. The ultimate destiny of the farmer is mapped out clearly to those with descerning eyes. He follows a definite evolution from wheat to beef, from beef to butter, just as his brethren in other lands have done. But this process is a aving the problem of harvest laborers to worry us each season for many years to come.

The area prepared for the crop of 1902 may be placed at 1,475,-960 acres, or only 85,000 acres less than a year ago, notwithstanding the unfavorable season for plowing. This indicates a determination on the part of farmers to sow as large an area as possible next year. With favorable spring weather, such as we have had for some years past, the acreage will equal, if not surpass, the present year.

Manitoba Crop Report.

The official crop report for the Province of Manitoba was issued on the 12th inst., giving the result of the crops and other agricultural statistics for the past season. The agricultural situation is discussed in much the same terms as it has been in the weekly letters of our Western correspondent.

The figures show that while wheat exceeded the estimate made in August last, oats are on the other hand, not quite up to expectations. In ordinary years the Eastern portion of the Province has given better returns than the Western, but this year the conditions are reversed. The yield of the Northwestern district averaged 30 bushels, the Southwestern 25, the North central 26, the South central 24, Eastern 21. The average for the Province is 25.1 bushels.

The following figures summarize the production of various grains for the year:

	Area in crop	yield	Total vield
	acres	bus.	bus.
Wheat			50,502,085
Oats	689,951		27,796,588
Barley	191,009		6,536,155
Flax	20,978	12.7	266,420
Rye	2,707	23.0	62,261
Peas	879	18.6	16,349
Potatoes .	24,429	196.0	4,797,433
Roots	10,214	286.0	2,925,362
The tota	al grain	crop is	ulaced at

85,179,858 bushels.

The sales of dairy produce for the year are as follows:

 Butter
 Pounds
 Price
 Value.

 Dairy
 2.740,090
 14.4c.
 \$395,540.82

 Creamery
 2.460,650
 17.98
 442,424.87

 Cheese.
 Factory
 1,039,392
 8.5
 88,348.32

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Total value dairy products \$926,314.01 The total value of farm buildings erected during the year is placed at 1,434,880; this amount is somewhat less than last year, few farmers having had time this season for building operations.

The land prepared for next season's crop is as follows:

Total 1,475,960

The rainfall during the growing season was 16.29 inches distributed as follows:

April		•••		•••	••	.89	inches.
May	•••					.37	inches
June						6.73	inches
July						2.62	inches
Augu	st					1.85	inchas
Septe	mb	er	•••	•••		3.33	inches.
Octob	per	•••	•••	•••	••	.50	inches.

Total 16.29 inches.

The number of live stock in the rural districts of the Province, July 1st, 1901, was:

Horses						142,080
Cattle						262 168
Sneep				• •		22,960
Pigs	•••	•••	•••	•••	•••	94,688

"How still they are!" remarked Mrs. Fogg, apropos of the young couple in the next room. "Yes," replied Colonel F.; "it reminds me of my army days. It was alwaya worderfully quiet just previous to an engagement."

She-Yes, she is a woman who has suffered a great deal because of her belief.

He-Indeed! And what is her belief?

She—That she can wear a No. 3 shoe on a No. 4 foot.

Correspondence

How to Increase the Fruit Crop. Editor THE FARMING WORLD :

In a recent number of your paper I read a very ably written article on Intensive Fruit Growing, by Mr. Pettit. The writer says, part, that the great problem in now confronting the fruit grower, is the securing of proper and suf-ficient fertilizers in order to produce a crop of good quality. In my humble opinion this can, in a great many cases, be overcome by practising Intensive Fruit Growing as it ought to be done. To use a slang phrase, "We see a farmer's finish" who keeps no stock on his farm and buys no manure but hauls everything he grows on his farm to market. This is practically what a great number of fruit growers are now doing. On most of the fruit farms around here enough corn and roots can be grown every year in conjunction with the fruit to feed a good many head of cattle each winter, and this, I think, is one way of solving the problem: How to produce proper fertilizer for the fruit.

Some men will argue that there is no direct money to be made in that way of doing, and I doubt very much if there is much of a cash profit to the good, after charging up everything against the cattle, but I think I am keeping within the margin when I say that with proper attention to feeding, etc., we can at least have the manure as profit and that in itself is no small item, when we think of manure of a very questionable quality, costing us \$1.00 per ton on cars here. Straw and coarse on cars here. Straw and coarse grains would in a great many cases have to be bought, but these can be bought by the fruit grower cheaper than he could grow them on land adapted for fruit. There are more artificial manures being used than formerly, and they are very good when used on the proper soils. but for land deficient in humus (for this is what the fruit land usually lacks) there is nothing better than barn-yard manure.

In some counties of Scotland, where it is absolutely necessary for the farmers to practice intensive farming, we find farmers who only keep one or two cows during the summer months on a 300 or a 400 acre farm, feeding one hundred head of store cattle during the winter. They are fed on roots, straw, oil cake and unsaleable potatoes, or perhaps some other feeding stuff in place of oil cake. All the saleable grain the farmer grows in the district where we came from was sold and cheaper feeding stuffs bought to take their place. The result of feeding so many cattle during the winter was immense quantities of manure of good quality, for we must remem-ber that the manure from an animal fed on feed such as the foregoing is worth double that from an animal fed on straw aione.

Every year now there will be more fruit coming into bearing, and in consequence it is more than ever necessary for us to produce fruit of the best quality in order to find sale for it at remunerative prices, and this can only be done when the land is in a proper state cultivation. There are other things that are also necessary in order to produce good fruits, but this is the foundation.

What I have written in this letter seems to me to be one way of overcoming the difficulty men-tioned by M. Pettit, but each man should study out what is the best method for his particular case. President Roosevelt in his first message to Congress hits the nail on the head when he says: "That the chief factor of each man, wageworker, farmer or capitalist alike, must ever be the sum total of his own individual qualities and abili-ties." Only by intelligently or Only by intelligently applying ourselves to the task to be done and solving the problems confronting us can we expect to succeed in these modern times.

Hugh Bertram.

Vine Mount, Ont. December 5th, 1901.

Practical Pointers for Hog Raisers (Cont'nued from last issue.)

ARCH M'COLL, ALDBORO, ONT. In reply to your circular letter n the "hog" industry, I would on the answer the question: Is it advisable for the average farmer to raise fall litters of pigs ?

Yes, by all means. So long as the hogs average as high in price as they have done during the past year. It will pay not only to raise fall litters, but spring, summer and winter litters as well. To ask any one who is in the position that we are, having just sold a litter of spring pigs 1%c a pound less than pigs were selling for three weeks ago, whether fall pigs pay or not, you may safely count on yes as an answer. The reason why hogs drop in October and November, as reg-

ularly as the year comes round, is because nearly every farmer who raises hogs makes it a point to have his sows farrow about the first of April. The result is that in about seven months there is a glut in the market, of which the packers are quick to take advantage of. All summer there has been a scarcity of hogs and the farmer who was fortunate enough to have hogs to sell received the highest price the market would warrant. There is no earthly reason why hogs should have dropped two cents a pound in a month, if we take for a guide the market reports for Canadian bacon in the Old Country at the present time, and a month ago we see very little change, nothing at least

that would warrant such a drop as we now see. The packers, of course, claim that they were pay-ing more than the British market ing more than the british market would justify, but if so they are now repaying themselves with good big interest for any loss they may have sustained. Owing to the high prices ruling all summer, farmers have as a rule forced their spring pigs as rapidly as they could and now there are thousands of hogs in the country which will have to be sold during the next few weeks or they will be too heavy for the market and will have to be sold at whatever prices they will bring. In all probability there will again be as carcity of hogs after the first of December and higher prices will likely be the rule. Owing to the high prices that have ruled for a year or more, the average farmer fattened all the sows he could possibly spare, arguing that the high prices would not continue and he was going to make every cent he could while prices were high, so could that there has been no effort made to increase the number of breeding sows in the country. Consequently the crop of pigs is not increasing very fast. It will be noticed as a rule that when hogs are worth from three to four cents a pound that the farm barnyards are full of pigs, simply because the sows are hardly worth selling at such low prices. The man who is making money out of hogs is the man who is staying right by them through good and evil report, when prices are low as well as when they are high. In order to make hogs pay the farmer must try two litters per year from each sow, and if proper-ly taken care of and fed the sows do not seem to be any the worse. In this case it might be wiser to have the spring litters a little later than the custom is at present. If the sows were bred so as to farrow about the middle of May it would bring the pigs into the market about the first of December, after the heavy rush was over, when prices would be likely to be on the mend, and it would not cost a bit more to get them ready for mar-ket then than it would six weeks or two months earlier. Then about the first of November would be a good time for the fall litter, as they would be ready to market in June, when prices as a rule are good. Don't breed your sows when everybody else does. Where three or four sows are kept on the farm, have them farrow at different times so that you will have a load of hogs that you can get ready for sale at short notice whenever the markets show an upward tendency. All summer small pigs at, say six weeks of age, have been selling readily at from \$5 to \$6 a pair, there is large profit in this for the there is large profit in this for the breeder and the farmer who has a shortage of feed will make more clear profit to sell his pigs at weaning time than to buy feed and fit them for market. As this letter is already too long I will close. Perhaps at some future time I may say something about the care and feeding of hogs.

The Provincial Winter Fair

A Great Success. Big Crowds. Large Exhibits.

The Provincial Winter Fair of 1901 will rank as the greatest show of its kind ever held on this continent. In fact, we have yet to hear of another show that combines so much practical instruction and so many educational features in its programme as does this annual winter fair. The attendance was good and all departments of the show were filled to overflowing, and accommodation was at a premium. Before another show takes place more room will have to be provided. Below will be found a jull report of the show.

CATTLE

The show of beef cattle at the winter fair was excellent. The numbers in the aggregate were equal to previous years, there being 48 in the pure bred classes and 58 in the grades and crosses, a total of 106. The quality was uniform and good. There were none of those over-fed masses of fat that have been seen vears ago. The show was of prime, extra well-fed steers and heifers ready for the block. The Short-horns had the most classes and with 22 entries against 26 of the other pure breeds had the best of the contest. Some of these entries were not forward, notably the Minnesota University Experiment Station, which had made sev-eral entries, were absent. They had purchased a good many well feed Convolution tion, fed Canadian steers, many of them winners in the younger classes at former shows, and had been fitting them for the Chicago International show.

The rule in Chicago is that all prize winners in the fat classes must enter for the block test and must be over two years old. The conse-quence was that these Canadian bred animals being winners had to be slaughtered. In the Shorthorn steer classes the number of white animals was noticeable. Eight or ten pure white ones all in a bunch made a pretty sight. White is not at present a popular color for bulls, hence the number that were in the steer classes. For two-yearold steers there was but one, and he got the ticket. Geo. Dickie, Hyde Park, was the owner. He was named Snowball and was by Clinton Victor. There was no year-ling shown and next came the steer calves. Joseph Kirby, Armstrong's Mills, near Guelph, had the winner. He was named Whitby by King William. Second went to a white fellow well grown but not over fat, called Blizzard, shown by Robert McEwan, Byron, and his steer was fortunate enough to get the Sweepstakes as the best Shorthorn steer, the winner not being entered for sweepstakes. There were four fat cows shown, and B. Baxter of Hamilton, J.& R. McQueen of Elora and John Brown of Galt, were the winners in the order named. For

two-year-olds H. Smith, Hay, had a white Barmaid by Abbotsford, a big, well made heifer, even and thick fleshed. She ran a close contest for best heifer with the yearling first prize, Money May, by Moneyinfiel Lad, bred and fed by James Leask, Greenbank, Ont. She is a red of good quality but a trifle patchy at the tail head. She handles well with good, firm flesh, and is well covered along the back. Between these two heifers the public were divided, many favoring the Barmaid heifer for first place. E. Jeffs & Son, Bond Head, had the second two forward and James Gibb, Brooksdale, was third. In the yearling class E. Brlen & Son Ridgetown, was second and J. Freid & Son, Roseville, third, both nice animals.

HEREFORDS AND ANGUS

The grouping of the other beef breeds makes a peculiar contest --white faces and Aberdeen blacks compete, and then the shaggy Gal loways and the smooth, ruby red Devons are in the same ring. The Devons are in the same ring. only exhibitor of Herefords was the F. W. Stone Stock Co. of Guelph. They had out a few very well fed Herefords and won three firsts. They had no entry in the calf class. For two-year-olds and yearlings they had two Peaches entered, 34, 35 and 36, and they all got ed, 34, 35 and 36, and they all got into the prize list, beating the blacks every time. For aged cow Duchess of Moreton, 22, was also first winner. Walter Hall, Wash-ington, Ont., had next place with his Polled Angus. He had second and third for two-year-olds, second for yearlings and second and third for cows. James Bowman, Guelph, had some seven head and won first and second on calves with S. Young, Binkham, third. This is a new exhibitor and he had his stuff in fairly good order.

GALLOWAYS AND DEVONS

The Galloways had the best of the contest. There were three exhibitors of Galloways, each with three animals, A. M. and Roht. Shaw of Brantford, D. McCrae of Guelph. and Thos. Lloyd Jones & Son of Burford. The former won for two-year-olds and yearlings, both first. The former with Flora McErne and the latter with Belle B. In the cow class D. McCrae had his young heifer "Adela" a Chicago winner, but disqualified there because not spayed. This enabled her to be brought to Guelph. He had also the third prize calf, Lismore Lady, Mr. Shaw being second with Winsome Charteris. In this class W. J. Rudd, Eden Mills, won with the Devon steer calf "Cracker Jack."

GRADES AND CROSSES

This was the feature of the cattle show and contained many very fine

animals. Most were Shorthorn grades but a few of the blacks came in for tickets. For two-year-old steers James Leask was tirst for the white steer "Champion," very fat and a good handler, but a triffe rough. He weighs 1,840 lbs. He also won first as best grade steer, sired by a Shorthorn bull, and was placed first for the Halliday Cup for best animal any age or breed bred and fed by the exhibitor. In this last the public generally preferred his stable mate, the roan heifer Bess. Both are by that great breeding bull Moneyiuffel Lad. The heiler is very smooth and evenly covered, and has a back broad, level and smooth. They won the grand trophy given by the Beil Organ & Piano Co. of Guelph, Ont. This is an elaborate silver cup valued at \$250, and both these valuable cups have become the property of Mr. James Leask, as he has twice won them with different has twice won them with universe animals. They were on exhibition during the show in the window of D. S. McDonald & Co., Guelph, and were seen and admired by thousands. For two-year-old steers R. J. Robinson, Ailsa Craig, was second and Thos. Lloyd Jones & Sons, Burford, third, with a good, thick fleshed Galloway grade.

For yearling grade steer, James Green, Fergus, was first with Nichol Hero, a very fat one, a trifle slack in the back. James Leask, was second, with a red steer, fair was second, with a red steer, fair quality and firm flesh but flatter on the ribs. Third went to John Dickieson, Eramosa. In yearling steers the well known feeders, J. Fried & Son, Roseville, were first, N. H. Black, second, and A. Me-Dougal, Guelph, third. This last was said to be a half bred Angus, but no one would suspect it till In the heifer class, Leask's Bell, has already been men-tioned as the winner. She weighs Mr. tioned as the winner. She weighs just over 1900 lbs. Second went to J. Fried & Son, for Daisy, and third to G. and W. Parkinson, for a grade, Angus-Shorthorn. Jas Leask won with a nice roan first for heifer under two years old, M. Wolfe, Hespler, second, and Geo. Kitching, Corwhin, third, all three nice animals. Jas. Bowman won for best grade Polled Angus steer, and James Green, Fergus, for County of Wellington prize. He was also second to Leask's Cham-He pion, as best grade Shorthorn. For pion, as best grade Shorthorn. For three export steers there was a grand lot shown. James Rennie, Blackwater, was first with two roans and a white faced red. This award was challanged on the ground that Mr. Rennie had not owned one of the lot the required three months before the show. G. B. Hood, Guelph, was second with a well finished lot. John Brown Galt, third, and J. Fried & Son, fourth. The whole lot were very nice well fed animals.

HYBRID BUFFALO

The exhibit of hybrid buffalo, made by Mossom Boyd, Bobcageon, attracted a great deal of attention. They were a very uniform lot, dark

colored, almost black, with the high fore shoulders of the buffalo. They are from a pure plains buffalo and grade Polled Angus cows. Mr. Boyd has for years been hand-ling these on his Big Island stock farm and experimenting with a view of producing an animal that will breed freely with domestic cattle, and will have a thicker coating of flesh along the back bone. The Buffalo has very long spines on the back bone, especially towards the shoulder. He lacks in kind quarters, but even there he has considerable edible meat. Mr. Poyd at very great expense has bred both half and quarter blood hybrids. Not all the animals breed regularly but there are a number of hybrids that have bred and produced large grothy animals. If the experiment be successful and a deeper cut of meat be obtained along the back it will the value of beef greatly increase cattle. The selection consisted of three cows, moderately fat, they had been grazed on the Big Island Farm all summer; a few were shown at the Toronto Exhibition, and they have been on moderate feed Since. Three were brought to Guelph show, and tied up like other cattle. They attracted a great deal of attention. Wild by Pature they difference with other nature they did not take well to the crowd of visitors and were ti-mid and frightened. They did not feed well, in fact, could hardly be induced to eat anything after the opening of the show. Entered in the slaughter test the meat will be thoroughly tested and the results will be awaited with interest.

THE DAIRY TEST

Some 30 cows were entered in the two-day milking competition made up of Holsteins, Arrshires, Shorthorns and Grades. No Jerseys or Guernseys were shown so that there was not the variety of other years. No food was taken into account on estimating results The method adopted last year, was not considered satisfactory for so short a test, and the rules of two years ago applied. The Holsteins were out in good

numbers. There was no individual cow that stood out pre-eminently, like Rettie's cow of last year. They were however, a good aver-age lot, especially those under 36 months. G. W. Rice's cow, Winnie-win gave 119,5 lbs. of milk in the 48 hours, and averaged 3.5 per cent. of fat, and would likely get first place. The Ayrshires as a class were very good and above the average. They made a very good showing as will be seen when the results are made public. The Shorthorns made a good showing that must place this breed well to the front as milkers. H. K. Fairburn, Thedford had three good cows. His cow Jubilee's Julia, shown in 1899, gave 88.6 lbs. of milk with the highest test at 3.75 per cent. But highest test at 3.75 per cent. But we will have more to say of these cows later. A. W. Smith's cow Irish Joy, just 10 days over 36 months gave 96 lbs. 14 ozs. her highest test being 4.35; H. C. Gre-

ham's cow, a Shorthorn, made the highest test at the show, that of 5.6 per cent. of fat. She gave 65 lbs. 10 ozs. of milk. The grades lbs. 10 ozs. of milk. The grades showed up pretty well and taking it altogether a very good lot of cows were entered. The tabulated results of the test will have to be held over for another issue.

SHEEP

There was a good show of sheep, All the ordinary breeds of Canada being well represented. Fresh from the International Show at Chicago where our breeders wou many prizes and got the lion's share of the honors, our Canadian show looked rather small by comparison, but the quality was there and the best were none too good for the Ontario Winter Fair. In Cotswolds John Rawlings, Ravenswood, won first and second for single wether lambs, first for pen of 3 lambs, and second for pen of 3 ewe lambs. John Parks & Son, Burgessville, had third for wether lambs and third for pen of three, and all the prizes for shearling wethers. For ewe lamb, J. C. Ross, Jarvis, was first and second, and first for pen of three ewe lambs. The class con-tained a lot of good strong sheep, big bodied and well grown, with plain faces and heads quite common. Lincolns were shown by J. T. Gibson, Denfield, and G. Walker, Ilderton. The former had most of Ilderton. the first prizes, winning four firsts and two seconds. The latter had first and second for wether lambs. There was a strong display of Leicesters. In ewe lambs, Jno. Kelly, Shakespeare, was first and second with A. and W. Whitelaw, Guelph, third. In wethers, Orr & Lillico, Galt, were first for shearlings and first and second for lambs and for pen of 3. J. M. Gardhouse, High-field, was second for sheatling wether and third for lambs. For pen of 3 ewe lambs, John Kelly was first, A. & W. Whitelaw, second and John Hoggard, Ranleigh, third. There was an excellent show of Leicesters.

SHORT WOOLS

Shropshires came first in the medium or short wool classes, R. Gibson, Deleware, leading as he Gibson, Deleware, leading as he did at Chicago. He had three firsts for shearling and wether lamb and for three wether lambs. Jno. Campbell, Woodville had first for pen of ewe lambs with Geo. B. Phin, Hespeler, second and W. E. Wright, Glenworth, third, in this and two other classes. Jno. Campbell had second for shearling wether and third for wether lamb and second for pen of lambs. The quality of the Shropshires was very good, it would be hard to find better ones. The Southdowns were more numerous than the Shrops, having over 50 entries. Honors were well divided. John Jackson & Son, Abingdon, had first and second for ewe lambs and first for pen-of three. T. C. Douglas, Galt, had first for pen of wether lambs and second and third in the class, and two other thirds one for pen of

ewe lambs and one for shearling wether. Wm. Martin, Binbrook, had two thirds and one second, and W. H. Beattie, Wilton Grove, had a second for shearling wether. In Oxfords, Smith Evans, Gourock. had three firsts, two seconds and a third. J. H. Jull, Mt. Vernon, one first, two seconds and two thirds, and K. Finlayson, Campbellton, 1 of each, first, second and third. The Oxfords were good and well brought out. Dorset Horns were fewer than usual, R. II. Harding, Thorndale, had two firsts and two seconds, John Hunter, three thirds and one second, while W. II. Beattie, Wilton Grove, had one first for yearling wether but it was protested on the ground that it was not three months with the present owner.

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Hampshires and Suffolks, were grouped. James Bowman, Guelph, had all the wethers shown and won also second for ewe lamb. Telfer Bros., Paris, being first and John Kelly, Shakespeare, third in this class. There were a lot of Shropshire specials all for American bred sheep owned to days or more by the exhibitor. R. Gibson had again the winning wethers. For Shrop grade wethers, Jno. Campbell got two firsts. For Leicester specials open only to exhibitors who never won before, John Hoggard, Rane-leigh was first, J. & W. B. Watt, Salem, second and D. H. Taylor, Corwhin, third. The Southdowns specials were well distributed over five exhibitors. The Cotswold special for three wether lambs went to John Rawlings.

The Oxfords were distributed to the three exhibitors. For grades or crosses. In ewes, first went to Jno. Campbell for Shrop grade.second to E. Brien & Son for Cots-wold and third to J. T. Gibson on Lincoln. The wethers all we and Shrops, Jno. Campbell first and second with R. Gibson third and in lambs. There was a lot of grade sheep shown of excellent quality.

SWINE

BACON HOGS

Large prizes with good prices for pork and a determination on the part of all the breeders that ex-hibited at the fair to make an ex-hibit that would be a credit to their respective breeds, all combined to make the exhibit of swine at the fair last week one of the best, if not the very best, that has ever been seen at a winter fair. The change in the prize list from last year in regard to bacon hogs, in which all pure breds competed together for honors, had the effect of very materially improving the quality of the exhibit of bacon hogs and the entry for pure bred bacon hogs, for which the first prize was \$30, and extending down to nine positions, showed an entry of 29 lots, nearly all being present for inspection by the judges. What under any circumstances would be quite a task was rendered very difficult by not having any available room at all suitable for a proper

inspection and examination of the many animals exhibited. But after considerable time in examining the individuals comprising the different lots, the judges placed the first award on a pen of three Yorkshire barrows from the entry of J. E. Brethour of Burford, which for conformation and quality were as near perfection to an ideal bacon hog as we may expect to produce. The second prize was awarded to J. Featherston & Son of Streetsville on a pen of pure bred Yorkshires, being very much like the first prize lot but with scarcely as much finish. The third award went to J. E. Brethour on a pen of Yorkshires, which, although show-ing excellent quality, were not as uniform as lots one and two.

A pen of Tamworths from the herd of J. R. Newell & Son of Crampton was awarded fourth place, being well up to the perceding entry in both quality and finish. An entry from the weil known Berkshire herd of Snell & Lyons secured fifth position. They were of excellent type but slightly overfinished, which prevented them from securing a higher position. The sixth award went to H. Debels for a pen of Yorkshires true in type but not uniform in finish. G. B. Hood secured seventh awards with three Yorkshires, this entry whowing not so much length as those placed higher in the awards.

Eighth prize was awarded J. Featherston & Son for an entry possessing good length of body but of uneven finish. Ninth position fell to the credit of J. C. Nicol on a group of Tamworths.

IN GRADES AND CROSSES.

Fourteen lots of three each came before the judges for inspection and in point of quality were well up to the pure breds. A. Elliott & Sons of Galt captured first place with three Tamworth and Berkshire grades. Second prize went to J. Park & Son with three Yorkshire and Tamworth crosses, T. A. Mc-Clure securing third prize with three high grade Yorkshires. Fourth award went to R. H. Harding with three Yorkshire and Berkshire crosses, J. Rettie securing fith position.

The prize for three export bacon hogs from County of Wellington was awarded to D. Matheson. The prize for four Wiltshire bacon hogs weighing not less than 170 or more than 200 lbs. First prize, 560, second prize \$10, contributed by the Wm. Davies Co. of Toronto, was captured by J. Featherston & Son, Streetsville, with an excellent lot of Yorkshires weighing from 192 to 196 lbs, and very much alike in type, second position going to four Yorkshires from the herd of J. E. Brethour, possessing quality but not so uniform as the preceding entry.

. The Sweepstake prize, \$50, given by the London Packing Co. for the three best export bacon hogs of any breed or cross fell to the honor of J. E. Brethour for his pen of pure bred Yorkshire barrows, which captured first in class for three pure bred bacon hogs. The live bacon hogs were judged by James Leach, Toronto, Mr. Hodges, Brantford, Prof. Day, Guelph, Wm. Jones, Zenda.

BREEDING CLASSES.

The pure bred Vorkshire class was strong in number and quality and each of the sections well filled. The section for barrows over six and under nine months: First, J. E. Brethour, Burford; second, R. J. Kerr, Mimosa; third, Colin Camp-bell, Guelph. Section for Barrows under six months brought out six nice smooth pigs of good quality. First to H. Dedels, second to H. J. Davis, third to J. Featherston & Son. For sows over nine and under 13 months came next. J. E. Brethour had an easy first with his capital sow Oak Lodge Clara, which showed length, depth and smooth finish with plenty of good bone, second and third going to J Featherston & Son for a pair of smooth sows. Sows over six and under nine months brought out the strongest section in the class, first and second going to the Oak Lodge herd for a pair of smooth, lengthy sows, and third falling to the credit of II. J. Davis, leaving still a number of good ones un-placed. For sows under six months H. Dedels captured first, second and third going to J. E. Brethour. Three pigs, the offspring of one sow, brought out five en-tries, first going to J. E. Brethour and second to II. Dedels. Judge, Wm. Jones.

Tanworths were a good lot and well brought out. The section for barrows under nine and over six months brought out entries from the herds of A. Elliott & Son, Galt, D. Douglas & Son, Mitchell, J. C. Nicol, Hubrey, W. M. Smith, Scotland, awards going in the order named.

For barrows under six months only one entry was forward from the herd of A. Elliott & Son. Sows over nine and under 15 months brought out an excellent lot. Lady Amherst from the herd of D. Douglas & Son captured first prize and certainly is an excellent sow, second going to A. Elliott & Son, Galt, with a good typical sow, but cf less scale than the preceding entry. Third prize fell to the entry of C. Nicol. Sows over six and under nine brought out a nice lot. D. Douglas received first with J. C. Nicol a very close second, who in the opinion of some should have received the first place, third prize going to A. Elliott & Son. Sows under six months brought out a nice lot with the awards all going to W. R. McDonald of Ridgetown.

Three pigs, the offspring of one sow, brought out five pens of good individuals, first going to D. Douglas & Son, second to A. Elliott & Son, Galt. Judge, Wm. Jones.

Berkshires were out in fine form and strong in numbers. Barrows over six months and under nine months brought out animals from the herds of such well known breeders as Snell & Lyons, Snelgrove; Geo. Green, Fairview, Durham & Caven, East Toronto, W. J. Reed of Eden Mills, awards going in the order named. For Barrows under six months Durham & Caven received first, and Snell & Lyons received second and third.

Sows over 9 and under 15 months brought out a lot of excellent animals. First award fell to Geo. Green's Highclere Sissy, second to John Kitchin's Corwin's Lass, third to Wm. Wilson, Willow Lodge Bertie. The section for sows over six and under nine months brought out twelve entries and a better lot would be difficult to find, first going to a wonderful, smooth, level sow from the herd of Wm. Wilson of Snelgrove, with an entry from the herd of Geo. Green a close second, who was also closely pressed by the entry of Snell & Lyons, and still leaving a number of good ones outside of the awards. Sows under six months were also a wonderfully strong show of thirteen good ones, which tried the skill of the judge quite as much as the preceding section, first position going to Geo. Green, second and third to Snell & Lyons. This cla judged by R. H. Harding. This class was

The exhibit of Chester Whites was composed of entries from Bennett & Pardo, Charing Cross, D. Decourcey, Bornholm, W. Wright, Decourcey, Bornholm, W. Wright, Glennorth, R. H. Harding, Thorn-dale, and John Silverthorn, Scot-Barrows over six and under land. nine months were the first to come nume months were the first to come before the judge. Bennet & Pardo receiving first and second, D. De-courcey 3rd. Barrows under six months, D. Decourcey captured first, second and third going to Bennett & Pardo. Sows over nine and under filters incursts brought and under fifteen months brought out four entries, two from Bennett & Pardo, one from D. Decourcey, one from R. H. Harding. The first and second prizes were placed on the entries of Bennett & Pardo, third to D. Decourcey, leaving the entry of R. H. Harding at fourth place, which by common consent of all the exhibitors in the class, should have been placed higher up. Sows over six and under nine months. Bennett & Pardo again secured first and second, with D. Decourcey third.

In section for sows under six months, first went to Bennett & Pardo, second to D. Decourcey, and third to Bennett & Pardo. In section for three pigs the offspring of one sow, Bennett & Pardo secured first, with D. Decourcey second. Thos. Teasdale, judge.

Poland Chinas were exhibited by R. L. Smyth, Fargo, W. M. Smith, Fairfield Plains, and J. Silverthorn, Scotland. The first named exhibitor had a fine lot of well finished pigs and secured the major part of the prizes.

Duroc Jerseys were shown by W. N. Tape of Bentpath, who as usual had a nice lot of well finished animals, and W. M. Smith of Scotland. Thos. Teasdale, judge.

Thos. Teasdate, judge. Essex were shown by J. Featherston and T. A. McClure, Featherston's herd receiving the major share of the prizes. Judge, Thos. Teasdale.

(Continued on page 687.)

Practical Talks to Practical Men

The Big Meeting

The key note sounded at the big meeting, held in the City Hall, Guelph, on Wednesday evening last was, "The Dignity of Agriculture." At no similar meeting we have attended for many years has there been so much said of an inspiring nature to agriculturists. It was not said either with the mere desire to please, but with an earn-estness on the part of each speaker that convinced one that the sentiments expressed were not of an evanescent character, but given with a view to instilling in the minds of the farmers and breeders who were present, that they are engag-ing in no mean calling, but one that requires the rarest skill and the keenest intellect to make successful. The practical talks were reserved for the other meetings, but the big evening meeting was not less valuable on that account. Everyone present must have gone away feeling prouder than ever of being a farmer.

The meeting was presided over by the Hon. Mr. Drvden. After the addresses of welcome by the Mayor, crisp, bright and inspiring addresses were given by Dr. Mills, Hon. Mr. Fisher and Hon. G. W. The Premier's address was Ross. specially noteworthy and delivered in Mr. Ross' very best style. The prosperity of the country was bound up with the prosperity of the farmer, and for that reason, great importance must be attached to the course of instruction given at the Provincial Winter Fair. To be in the front parts To be in the front rank of his profession, a farmer required to be a mineralogist and chemist, to know the composition of soils and the effect of combination; a botanist, to understand plant life; a naturalist, in order to know the nature of animals; a bacteriolog-ist, so that he may study the mi-crobes which are found every-where in this twentieth century. He needed to be an entomologist, to study insect pests and their effect on grains and fruit. There was not a branch of science that could be named that was not useful to a farmer. The farmers' profession was more comprehen-sive than that of the doctor or lawyer. Success was not achieved by chance, but by plodding, painstaking and intelligent effort.

The Hon. Mr. Fisher paid an eloquent tribute to the Ontario Agricultural College. It had been his good fortune to visit many agricultural colleges in other lands, and while there were many as well equipped and some carrying on as great a measure of scientific research, he was satisfied that the work of no other college in the work of no other college in the work d was attended with such practical and widespread beneficial results as that which characterized the 0. A. C. They had reason to be proud of what Ontario and Canada had accomplished, but he believed that Canada in the future would occupy that pre-eminent position in relation to this continent which the men of Northern Europe had assumed to the countries south of them.

Practical Gatherings

We have not space in this issue to give a full report of all the meetings held in connection with the Winter Fair and can only give a short synopsis of what took place. Fuller reports of the papers read and the discussions that took place will appear later. All the meetings were largely attended and the lecture room provided did not begin to meet the needs of the case. At every lecture there were hundreds of people who could not gain admittance so eager were visitors to the show to hear and obtain information upon the thoroughly practical questions dis-cussed. Better provision must be made next year. Overflow meetings were held in some cases. The Hon. Mr. Dryden presided at all the gatherings with one or two exceptions, and infused into the meetings a spirit of thoroughness and discussion that made them of very great value indeed.

THE BACON HOG

This subject was taken up by F. W. Hodson, Prof. Day and Prof. Grisdale. The live animals were before the audience and their good and weak points were pointed out by Mr. Hodson. The ideal bacon hog should have a nose of fair length, not too fine, good breadth of forehead, prominent eye, foreshoulder smooth, head and jowl light, back nicely arched, sides straight, sides fairly deep but not too deep. Loin should be well filled and rounded down to the back. Lowness in back indicated too much fat and not enough lean meat in the carcase.

Prof. Day dealt with the selection, breeding, caring for and feed-ing the bacon hog. He gave a most practical address, which we hope to be able to publish in full later. Selection and breeding were im-portant. If an animal inherited a short side feeding could not over-come that. Yorkshires and Tamworths crossed gave the best bacon hogs. The latter were rather light in ham and long in shank. The Berkshire was a very good pig, but as a class they had too much shoulder to the side. Breeds ob-iectionable in themselves jectionable in themselves were sometimes valuable for crossing. The growthy, thrifty, healthy hog was the paying hog. He had yet to see that it cost more to produce the bacon hog than other hogs. It rarely paid to keep a hog after it had gone 200 lbs. The causes of soft bacon were chiefly unthrifti-ness, lack of exercise, and overfeeding of corn. A variety of food was better. Prof. Grisdale followed in

much the same line and gave an account of the experiments conducted at the Experimental Farm, Ottawa, a report of which appeared in last week's issue.

THE SWINE CARCASE

The lectures and discussions on this topic were most valuable. Mr. J. W. Flavelle, manager of the J. W. Flavelle, manager of the Wm. Davies Co., gave a valuable address in which he showed that our bacon exports had increased in value from \$600,000 in 1890 to \$13,000,000 in 1900, which meant \$250,000 a week to the farmers of Ontario. There were 4,000 hogs per week slaughtered in our packing houses in 1890 as against 45,-000 in 1900. This increase had been brought about largely through the efforts of the packers, the Government work at Ottawa and Toronto, and the co-operation of the farmers of the Province. There was not an unlimited demand for Canadian bacon. There were four sources of supply for the English mar-ket: England, Ireland, Denmark and Sweden and Canada. Canada was to-day producing more Wilt-shire bacon than any other coun-try. There is not likely to be any material increase in England, Ireland and Denmark. Canada will get increased trade in the future if the quality is well looked after. He believed trade would come as fast as the farmers of this country could produce the hogs. It was always easier to secure first place in a market than to keep that place. There must be confidence, as between the packer and feeder, in order to keep up quality. The pack-er (anot make the price of hogs which is governed by the English market. He believed the Yorkshire hog was the best to cross with to produce the bacon hog. Farmers must raise hogs that will produce the highest percentage of best quality. We should aim to sell our bacon not as high as the Danish if we wish to hold the lion's share of the trade. There was an excess of capacity for slaughtering hogs in Canada of 20,000 per week As long as this condition existed competition for the farmers' hog would be keen. At their packing house, they were receiving about 20 per cent. of fats, 4 per cent. of softs and 3 per cent. of bruisers. Prof. Grisdale explained the sides

Prof. Grisdale explained the sides of bacon exhibited on the platform A fat hog was not necessarily a soft hog. The sources of soft bacon were, the kind of feed, the manner of feeding and the health of the animal. Oats, peas and barley, make strong bone in the animal, while corn makes soft bone and if fed to too large an extent makes soft and too fat bacon.

BEEF CATTLE

The lectures on this topic were most instructive and were given by Hon. Mr. Dryden, Prof. Day, Prof. Grisdale and A. W. Smith. There were two lectures. Prof. Day pointed out the points of the live animal in one and Prof. Grisdale in another, both were listened to with a great deal of interest. In the beef steer a broad head was a good criterion of what was behind A strong jaw indicated capacity. The neck should be short and thick nicely blending into the body. The breast should be strong and prominent, and the chest deep and broad, should be well let down in the flank. The rump should be even and filled evenly back and well let down. The choice meat is found along the back on the ribs, loin round on steak part.

Hon. Mr. Dryden discussed the selection of breeding, feeding and caring for such animals. Farmers had got over the idea that everyone could farm, and were now realizing that farming was a scien-tific business. Practical experience was the truest guide to the selecwas the truest guide to the selec-tion of animals. The breeding of animals brought more problems than the mere purchase with a view to fitting them for sale and selling them. There was too much view to need them. There was too mean selling them. There was too mean of a tendency to judge an animal of a tendency to judge an animal he its price. He aimed not only mean their sons not to induce farmers and their sons not only to select good animals but to teach them to rely on their own judgment in doing so. A low price did not mean that an animal was inferior, or a high price that it was superior, hence the necessity of

training on the subject. Mr. A. W. Smith dealt with the rearing of the calf. After which a most valuable discussion took place, which will have to be dealt with later.

THE MUTTON SHEEP

The good and bad points of a mutton sheep and allied subjects, were dealt with by Prof. Grisdale, A. W. Smith, John Campbell and John Jackson. Living specimens were before the audience which were taken up by Mr. Campbell. Quality as well as quantity must be considered in the mutton sheep. A mutton carcase is divided in the centre and there is a difference of 2% a lb. between the front and back halves, the latter being the dearer. A good mutton sheep should have smooth finish, rubbery feel, which indicates good flesh. Meat should be well carried down Meat should be well carried down on back. It should not be over done, but well finished. Thick meat, but no tallow. The breed-ers' ideal was different from the ideal mutton sheep. A breeding sheep must have a good brisket as it showed constitution. Aim in the mutton sheep to keep light in front and well developed behind. It was not altogether a matter of feeding, but of breeding. As a rule a too short necked lamb matures early. This kind make very good lambs but not very good yearlings.

Prof. Grisdale 'discussed the fitting of the sheep. In first two weeks of feeding fat is deposited on inside not on outside. Outside fat first shows on tail then in middle of back, then on fore and hind flank and breast. The uneven depositing of fat is due to careless feeding. Fat must not be soft or blubbery but good meat. Mr. Smith pointed out that all of the muscles

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should have sufficient development. Mr. Jackson, dealt with the selection, breeding and feeding. To breed the mutton sheep select ewess from I to 3 years old, should have long body, not too strong a neck. Should be particular about ram used. Get early maturity and finish lambs before one year old. Pea straw and well cured hay, are good for winter feeding. Breeding ewes require very little grain in winter, till a few weeks before lambing, when a little bran and grain will do good. Rape is good for fall leeding of lambs.

THE DAIRY COW

The desirable and undesirable points of a dairy cow, were taken up by Prof. Dean, Mr. R. Robertson, Supt. at Nappan Experimental Farm, N. S., and A. W. Smith. A lot of discussion took place. Live animals were before the meeting and their good and bad points shown.

POULTRY

Not the least interesting were the lectures on poultry. The speakers were Prof. Gilbert, Prof. Graham, Mr. F. C. Hare, in charge of the Dominion Fattening Stations. Jas. Anderson, L. H. Baldwin, C. H. Cottrell and others. Results of experiments at the Dominion fattening stations and the O. A. C., the effect of food on the color of meat, poultry-raising for profit, necessity for the use of incubators, the best shaped fowl from a feeder's standpoint, desirable and undesirable points of different breeds, were among the subjects dealt with. During the discussions reference was made to the growing export trade with England. It was pointed out that the English consumer demands a white-skinned bird as against the yellow-skinned, so popular in the United States. It was found also that in the home market, as indicated by Toronto and Montreal, there was a growing demand for white-skinned poulty. We have secured copies of some of the papers read which we will use later.

OTHER MEETINGS

Other meetings of a very practical character were those at which the dressed beef and mutton carcases were taken up. A number of annual meetings were held, at which the usual routine was taken up, and officers elected. These include the Ontario Poultry Association, Turkey Club, Barred Rock Club, Hereford Breeders and Galloway breeders, reports of which will appear in this and later issues.

BANQUET

Visitors to the fair were met with banquets and feasting on every side. In addition to the splendid feast at the Agricultural. College which was graced by the presence of His Excellancy, Lord Minto, there was feasting in other lines. The poultry men held forth on Wednesday evening, while on Thursday evening, the old reliable Fat Stock Club, of the city of Guelph, entertained many of the visitors at its annual dinner.

Ontario Fruit Growers

(Continued from last week.)

Considerable discussion took place on the last day of the Ontario Fruit Growers' Convention. Two things were brought out prominently, that the fruit growers and shippers are dissatisfied with the treatment they are receiving from the railway companies, and that the Dominion Government is determined to enforce the act providing penalties for those who systematically use fraudulent methods in the packing and marking of fruit for export.

WILL ENEORCE THE ACT.

In discussing the Fruit Marks Act, Prof. Robertson explained the system of inspection that had been adopted. So far the inspectors had been employed chiefly not alone in inspecting but in giving information in regard to the Act. While packing was better than it had been, there was still room for improvement. There had been no prosecutions heretofore, but many cases were found, however, where there was fair reason why prosecution should follow. Some of the packages had been branded by the inspectors "falsely marked" and in a short while the names would be published. Prof. Robertson mentioned one shipment that was falsely marked in which the fruit was good on top and bottom of the barrel, but small in the middle. This style of packing was nothing more than a swindle. His instruction to the inspectors were that from that day forward the inspectors would collect evidence and follow up with prosecution. The Act would be enforced.

Mr. Eben James of Toronto stated that he had shipped the fruit complained of and that it was good enough. He complained of the examination and thought the inspectors had exceeded their duty. He defended the system of packing and stated that it was impossible to supervise the packers. If the law was made too strict buyers would have to seek other quarters. Mr. Graham of Belleville stated that if the Government inspected the fruit it should grant a certificate which would relieve the grower and packer of any responsibility. Prof. Robertson in reply stated that the case mentioned by him was the second offence. The apples

was the second offence. The apples were badly and falsely packed, and he proposed to stop that kind of thing in Canada if he could. An insinuation by Mr. James that the inspectors in England had to agree with the inspectors in Canada was resented by Prof. Robertson, who stated that the inspectors had the independence to do the right and they were going to do it. The prosecutions that were threatened were in cases of evident fraud. This must be stopped.

TRANSPORTATION.

The report of the Committee on Transportation was considered by the meeting to be a colorless one, and it was decided to reject it and go right to Parliament and urge the appointment of a railway commission.

On motion of T. H. Race it was decided to ask the Ontario Government to supply the silver and bronze medals awarded by the Pan-American to Ontario fruit growers, but which could not be supplied by the Exposition, owing to the lack of funds. There are some 30 silver of funds. There are some 30 suver and 40 bronze medals to be pro-vided for. The meeting passed a resolution recommending an ex-hibit of fruit at the St. Louis Exposition in 1903. The next convention will be held at Walkerton.

On the closing day the following practial papers were read: "Prun-ing," by W. N. Hutt, Southend ; "Native Plums," by Prof. Macoun; "Profitable Varieties of Grapes," by M. Petti, Winona; "The Best Gooseberries," by S. Spillett, Nan-tyr; "The New Strawberries," by Rev. E. B. Stevenson, Jordan; "Our Best Commercial Apples," by W. H. Dempsey, Trenton; "How to Produce Fine Apples," by H. Jones, Maitland; "How to Grow Raspberries," by A. M. Smith, St. Catharines.

Galloway Breeders

The Galloway Breeders met in the mayor's office, city hall, Dec. 11th, during the Ontario Provincial Winter Fair. There was a good at-tendance of breeders, and an association was organized for the ad-vancement of the best interests of Galloway breeders. The American Galloway Breeders' Association, have held their meeting in Kansas City and Chicago alternately, and have done little or nothing for the breeders in Canada. While Cana-dian breeders desire to co-operate with and assist those in the United States, it was felt that the time had come when an organization was needed for this section of the continent. The name chosen was the Galloway Cattle Society of North America, and officers were elected as follows:

President .-- Hon. Senator Ferguson, Charlottetown, P.E.I.

Vice-Presidents.-Robert Shaw, Brantford, Ontario: Wm. Martin, Winnipeg, Manitoba; W. E. Coch-rane, Calgary, Alberta. Sec-Treasurer. – D. McCrae,

Guelph, Canada.

Executive Committee.-D. Mc-Crae, chairman; John Sibbald, An-nan, Ont.: Thos. Lloyd Jones, jr., Burford, Ont.

Delegates to Dominion Cattle Breeders, D. McCrae, Guelph; Robt. Shaw, Brantford.

By-laws, rules and regulations, were discussed and the details submitted to the executive to report at an adjourned meeting. The grand exhibit made by the breed at Chicago was mentioned and the society decided to co-operate with the Chicago directors for next year's show. It was agreed that a reshow. It was agreed that a re-cord be kept of all pure bred Galloways in Canada.

Northwest Cattle Breeders

A meeting of the executive of the Territorial Cattle Breeders' Association was held at Calgary last month to make arrangements for the coming auction sale to be held at that point next spring. It was decided to adopt the Old Country plan of judging all animals before they are put up at auction. Mr. John Davidson, Greenwood, Ont., will act as judge. The classes will be as follows: Three-year-old bulls and over, three-year-old cows and over, one and two and three-yearold bulls and heifers of each breed. In classes of three entries there will be a first class prize awarded. and in classes of four entries first and second ; when there are five entries there will be first, second and third prizes.

The executive, as authorized by the association at its last annual meeting, will interest itself in the revision of the prize lists of the various local fairs in the territories.

At last year's sale the North-West Government bore the expense of the shipment of stock to point of sale and after the sale to the purchaser's nearest railway station. It is doubtful if this will be done this year, and the association will pay the expenses met last year by the Government.

At a joint meeting of the Execu-tive Committees of the Cattle and Horse Breeders, the following Horse Breeders, the following events were fixed for next spring's show at Calgary:

Stallion show, May 14; judging of pure-bred cattle, May 14 (afternoon); auction sale of purebred cattle, May 15; annual meeting of the Territorial Pure Bred Cattle Breeders' Association, May 16 (morning); annual meeting of the Territorial Horse Breeders' Association, May 16 (af-ternoon and evening.)"

Western Horse Men

The executive of the Territorial at Cal Horse Association Calgary last month met and completed arrangements for next season's stallion show, which will be held at that point on May 14th next. The secretary, Mr. C. W. Peterson, reported that good progress had been made in the matter of securing support in connection with the imposition of a reasonable minimum valuation on horses coming into the West from the United States. Although noth-ing conclusive had been accom-plished in the way of securing a

remount station for the Territories the association had apparently succeeded in arousing the interest of the Dominion Government in the matter.

Georgian Bay Fruit Growers

The annual meeting of the above Association was held in the court room, Collingwood, on Dec. 11th.

There was a good attendance from the vicinity of Collingwood, and also representatives from the branch associations at Stayner, Creemore, Thornbury and Meaford.

The President, Mr. Saunders, oc-cupied the chair and gave a report of the work of the six months which have passed since the Society was organized. He laid special emphasis upon the unjust and excessive fright rates to which this section is subjected to. Mr. Mitchell, Clarksburg, spoke of the success of the apple dealers in cornering our apples in several years in the past, urged united action in order to meet them with their own weapons.

Messrs. Spencer, Cox and Hau-sterger spoke along the same lines and also pointed out the large market which existed in the Northwest and the importance of better care and more attention in the cultivation of our orchards.

A number of suggestions were made for the future work, such as co-operative buying of barrels and packages by means of which large sums could be saved. Co-operating in selling, whereby we would save the dealers' expenses and profits.

It was also proposed that a weekly journal be started in order to keep its members posted, or if this would not be found practical, that for at least the months of September and October, that a circular be issued to all members at least twice a week, giving full information with respect to prices and probable movement of some.

The election of officers resulted as follows: W. D. Saunders. as follows: W. D. Saunders, Stayner, President; W. W. Cor, W. Cox, Collingwood, Vice-President; G. Fred Marsh, Clarksburg, Secretary-Treasurer. Also two delegates on the Executive Committee for each local association to be appointed by the local association.

A country minister in a certain town took permanent leave of his congregation in the following pathetic manner: "Brothers and sisters, I come to say good-bye. I don't think God loves this church because none of you ever die. I don't think you love each other, hecause you have not paid my salary. Your donations are mouldy fruit Your donations are mouldy iruit and wormy apples, and 'by their fruits ye shall know them.' Broth-ers, I am going away to a better place. I have been called to be a chaplain of a penetentiary. I go to prepare a place for you, and may the Lord have mercy on your souls! Good-bye."-Toronto Saturday Night.

Ontario Experimental Union

The twenty-third annual meeting of the Ontario Agricultural Experimental Union, held at Guelph last week, was one of the best ever held. The attendance was good and the addresses and discussions of a most practical kind. A special feature of the meeting was the address of Dr. Wiley, Washington, D. C., on the sugar beet industry. We will not deal particularly with Dr. Wiley's address in this report. It will be dealt with more fully in our sugar beet department in this and following issues.

The gathering opened with a brief address by the President, Mr. T. H. Mason. The usefulness of the work of the Union was fully recognized, and thanks were due to the Minister of Agriculture for an increased grant, which had been of great service in furthering the work of the Union. The thanks of the Union were also due to the many farmers of Ontario who had conducted a large portion of the experiments. The zone of successful agriculture and horticulture was The zone of successful ever widening and extending, and with the opening of the new territory to the north would render much of the work of the station and union of peculiar interest and value.

CO OPERATIVE EXPERIMENTS.

Mr. C. A. Zavitz, experimentalist at the college, reported upon the experimental work of the year. There were 3,000 experimenters in 1901. In all 36 distinct experiments were carried on, the average results of all being satisfactory. Fifteen of them were dealt with in detail. detail. In oats, the Siberian proved the favorite for the sixth year in succession, with a yield of 42.2 bushels per acre. Next came Imperial Ligowa with 40.5 bush-els. In six-rowed barley Mands-cheuri took first place, yielding 29.1 bushels per acre. Then fol-Lowed Outbroche and Smore with lowed Odurbrucku and Success with 27.8 and 22.8 bushels respectively. In winter wheat Dawson's Golden Chaff was still the favorite, yield ing 27.5 bushels, with Diamond Grit, Early Genesee, Grant and Turkey Red following in the order named. In mangels, Evans' Im-proved was the best. In sugar was the best. In sugar beets, New Danish Improved yielded 27.30 tons per acre and Kleinwanzleben 22.26 tons. In Swedish turnips the Kangaroo yielded the most and in fall turnips, the Cow Horn. In parsnips and carrots, Bruce's Mammoth Intermediate carrot and Improved Half Long parsnip were ahead. The grain known as "Spletz," was very large in the grain and on threshing broke into sections, the hull remaining in the chaff. It grew mostly on poor soil. About 22 per cent. of the crop was in the form of chaff. The yield was about 18% bushels per acre. It

was chiefly valuable as a stock feed.

In the discussion which followed it was shown that Southern Ontario was troubled very much with pea weevil; Northern Ontario not so much so. Southern Ontario was looking for bug proof varieties, while Northern Ontario was looking for varieties giving large yields. Of the bug proof variities the Grass Pea was the best in yield and straw. Soy beans were a useful stock feed and used largely in the Western States. They were usually sown here about May 5tb.

IMPROVEMENT OF AGRICULTURAL EXHIBITIONS.

Mr. F. W. Hodson's treatment of his subject was a most comprehensive one. In 1830 financial aid was first given to agricultural societies in Ontario. To-day in the province there are 96 district societies and 375 horticultural and township societies. In 1888 the appropriation for these societies was \$54,074; in 1897 the appropriation reached \$76,650, where it now stands. From 1872 to 1896 the total grants to agriculture amounted to \$3,956,045, and of this \$1,561,023 was given to agricultural societies.

Though these societies have done a lot of good by stimulating farmers to produce superior products, he expressed himself as being strongly in favor of uniting the Fair and Farmers' Institute systems. By such a union a great deal of money could be saved each year. It would cost no more to administer the combined fair and institute system than it costs now to administer the institute system. The superintendent of institutes could look after the work of the two as well as the one with little additional cost.

In addition to the saving in cost of management, other advantages would be gained, such as arranging the local fairs in circuits for the employment of expert judges, securing a better class of men to manage the shows. With a combined system the holding of local fairs would count as so many meetings and the work could be arranged in a similar manner to the regular meetings of the institutes. It would secure honest and competent judging at the shows, and would make them much better educational mediums than they are at present.

In outlining ways whereby the local shows might be improved, Mr. Hodson stated that prizes might be given to the children of the school section in the district making the best display of grain in the straw, roots, vegetables, fruit, flowers, best collection of seeds, etc. He instanced the case of a school in Middlesex County, where the teacher held such exhibit in the school-house and which was most successful. Athletics might also be conducted. He deprecated most strongly the action of many fair boards in the way of jugglers, skirt dancers, etc., and urged that some of these other lines would prove greater drawingcards and would be much better for the moral and intellectual welfare of the people. He visited Great Britain the past

He visited Great Britain the past summer and found that at British exhibitions, both small and great, the fakir has no place. The shows are purely agricultural and educational. He gave it as his opinion that unless a different system is adopted in the management of many Ontario agricultural exhibitions, many of them must cease. None of them will be as successful as they should be, but by reorganization along the lines mentioned all will be put on a safer and better plane.

Prof. Day, Prof. Grisdale, G. C. Creelman, and H. B. Cowan took part in the discussion.

The evening session of Monday was given up to Dr. Wiley's illustrated lecture, on the sugar beet industry, which proved both entertaining and instructive.

OTHER EXPERIMENTS

The Tuesday morning session began with Mr. Graham's report of the experiments with egg preservatives. The preservatives tried were line water, line water con-taining salt (2 lbs. of line to 1 pint of salt), a solution of water glass (silicate of soda), common salt, and salt after the eggs were dippped in grease. In the second solution the salt did not seem to have any effect. With salt alone, the evaporation of the contents of the egg amounted to one-third; with the others there was no evaporation. In the lime and water glass solutions there were no bad eggs; in salt three per cent. had decayed. Out of a total score of fifty points the water glass solu-tion (one to five parts of water), had scored 44; do. (one part in sev-en), 43.2; line with salt, 40 points; lime water 41; salt alone, 37, and salt with grease, 38. At the College lime water was their favorite. Cost of preserving with water glass was Ac. to 2 cents per doz. There was a deposit formed on the eggs, but this could be washed off with warm water.

Mr. Zavitz followed with the result of the experiments with forage and fodder crops. In corn, Wisconsin's Early was the best. The Hairy Vetch and Grass Pea yielded well. In ciovers, Mammoth Red headed the list with 7.3 tons, or 4 tons of dry hay per acre. Common red gave 6 tons, or 2.1 dry, and Alsike, 5.6 tons or 2.6 tons of dry. Lucerne yielded 4.4 tons, and Sainfoin 1.9 tons. In grasses tall oat grass gave 2.8 tons, Timothy 2.7 tons, Orchard grass 1.9 tons and Meadow Fescue 2.2 tons per acre. In beans, the Marrowfat yielded most. The Country Gentleman gave the largest yield of sweet corn. In 45 tests



Dr. H. W. Wiley, Chief of the Chemical Division U. S. Department of Agriculture, who addressed the Experimental Union on Sugar Beets.

FRUIT EXPERIMENTS.

of potatoes grown on the level and in hills, those on the level yielded 197.8 bushels per acre, of which 87 per cent. were marketable. While those in hills yielded 189.3 bushels per acre, of which 88 per cent. were marketable. Of potatoes planted the same day as cut, 85 per cent. of a yield of 120.1 bush els per acre were marketable; of those planted five days after being cut, 84 per cent. of a yield of 111.8 bushels per acre were marketable. In 15 tests of potatoes covered with land plaster before sowing, 190.5 bushels per acre were got, 76 per cent. being marketable: being marketable; when not so treated 176.1 bushels per acre were obtained, 77 per cent. marketable. In seven tests, corn planted in squares or hills vielded 11.5 tons per acre, or 3.7 tons of husked ears; corn sown in rows or drills yielded 10.4 tons, with 3.7 tons of husked ears. Mr. Zavitz then referred briefly to his European trip last summer.

HINTS FOR DAIRYMEN.

Mr. J. A. Ruddick, chief dairy expert, Ottawa, read a valuable paper on, "Our Dairy Industry, Hints and Suggestions as to Needed Improvement." He spoke in a more optimistic strain of butter than cheese. The discussion was taken part in by Hon. Mr. Fisher, Hon. Mr. Dryden, Prof. Dean and J. H. Stonehouse. We have secured a copy of Mr. Ruddick's address, which we will publish later.

Prof. H. L. Hutt reported upon the co-operative experiments with small fruits. These experiments began six years ago with sixty experiments; to-day there are about 1,000. These experiments have greatly encouraged the growth of small fruits on many farms. Dur-ing the eight years 2,256 currant bushes, 3,220 gooseberry bushes, 3,600 blackberry plants, 4,440 black raspberry plants, 4,440 red and white raspberry plants, and 25,008 strawberry plants, in all 42,964 plants, have been distributed. In strawberries the Clyde made the best showing, in red raspberries the Shaffer, and in black raspberries the Eureka and the Giant were ahead this year, while the Hilborn and Palmer were behind. In blackberries the Snyder was best. In currants Fay's Favorite and in gooseberries Pearl and Downing were the most productive varieties.

A series of ten minute talks was given by a number of speakers, including F. C. Elford, Duncan Anderson, W. N. Hutt, Elmer Lick and E. C. Drury, on practical subjects.

OFFICERS FOR 1901.

President, T. G. Ravnor, Rosehall; Vice-President, Nelson Monteith, M. P. P., Stratford. Directors, Dr. Jas. Mills, President O. A. C.; T. H. Mason, Stratfordville; Superintendent G. C. Creelman, Toronto; L. S. Klinck, O. A. C; E. C. Drury, Barrie; Auditors, W. J. Rutherford and W. P. Gamble, O. A. C.

Ladies' Session-Experimental Union, OAC.

A GREAT SUCCESS.

The second annual ladics' session in connection with the Experimental Union was held in the lecture hall of the chemical building, Monday alternoon. Such interest was shown in the meeting that the seating capacity was taxed, many having to stand outside in the halls.

Miss Laura Rose, lady instructor in daitying, O. A. C., was the presiding officer and performed her duties with great acceptance. After pleasantly welcoming the ladies and commenting on the fact that this was essentially an age when women's interests were receiving more notice than in any past period, Miss Rose, continuing, said: "My remarks this afternoon will be on a subject common to us all. It is that which is the panacea of nearly every ill that flesh is heir to. That which most efis heir to. fectively and quickly heals the wounded, broken heart, gives con-fidence to the weak and keeps the strong from erring. Have you guessed the magic word? It is a short one-one very familiar to us all-the little word WORK. Our whole duty is to move-to work-in the right direction. We must keep pace with time or we shall be carried on with it-a dead load. An Italian philosopher expressed in his motto that time was his estate, an estate, indeed, which will produce nothing without cultivation, but will always abundantly repay the labors of industry and satisfy the most extensive desires, if part of it be not over-run with noxious plants or laid out for show rather than use.

"Nothing gives the character so much strength and energy as a definite object. Nothing is more productive of success and happiness than that a person should be in harmony with her work, that she should have the faculty of work, and well. Ruskin said, there can be no healthy thought without labor and no happy labor without labor and no thappy labor without labor and no thought into our everyday work, the drudgery of it would be largely removed.

"Many women bewail their lack of talent and that they can do no great work in this world, and these very women are makers and keepers of homes. What more beautiful mission. What more useful or coveted talent than that of making a home, where rest, peace and happiness abide. To keep a home well and to make its influence strong for good, is great enough in itself to fill the largest life.

"True, some women have an intense appetite for work and they feed it well. They certainly get Kingsley's reward, for he says, the greatest reward of having done well is having more work to do. It is a known truth that only busy women have any time for extra or unexpected work.

"Of course it is part of the very idea of work that it should involve labor and weariness. We need to fully reconcile our minds to this so as to work with patience and perseverance. There are various helpful considerations. To many women work is a necessity, but in working they are carrying on the order of the world. Without work the world would have been a wilderness and without work into a wilderness would soon return.

"It is a thought full of incitement and encouragement that we are of use in the world, that we are cooperating toward good. The consideration also arises that while we work our labor returns in blessings to ourselves. We are adding our culture. We are promoting our own development. Above all there is the supreme satisfaction of knowing that in work we are following the will of God. He condescends to employ us as fellow workers with himself. He has made work a law to himself and has assigned it as a law to us. The highest title which He vouchsafes is that of 'a good and faithful servant.' Such thoughts cannot make hard work other than hard work, but they save us from carelessness and indifference and will cause perseverance, cheerfulness and hope.

- "Oh, all who labor, all who strive, Ye wield a lofty power,
- Do with your might,
- Do with your strength,
- Fill every golden hour-
- The glorious privilege to do is man's most noble dower,

Then to your country, to your God, to your own self be true.

A weary, wretched life is theirs Who have no work to do."

Miss Rose, just before introducing Mrs. Watson, said: "That a most pleasing feature of the programme was that all the ladies in it were Canadian born, that we had grown sufficient unto ourselves and it was not felt necessary to import speakers this time."

Miss Mary Urie Watson, Principal of the Ontario Normal school of Domestic Science, Hamilton, Ont., was well received. She has a very pleasing appearance and bright animated manner. Miss Watson's subject was, "The Great Educational Value of Sewing." She had an array of the different kinds of work done by a normal class, and explained each step in the work. The first question to be asked was of what value is domestic science in the public schools. It is necessary to define education. Education is the 'harmonious development of the human powers. Let us examine the different sides of education. Education is not confined to school days, it is carried on through life. There are three phases of education—the physical, the mental, the moral—and all these phases should be developed in

vouth especially. How will manual training contribute to this three-fold development? There is no doubt of the physical develop-ment, but some are doubtful of the mental and moral. Physical training was action, mental training was guidance to action, moral training the most desirable form of action. These three are closely allied and act and react on each other. There is no properly di-rected physical action without mental action and no mental effort that does not have more or less moral effect. Any act directed by the pupil's own mind is manual training, and anything that will lead a child to do work properly, of his own free will, is moral training. The curriculum in the training. The curriculum i Hamilton schools includes basketry, sewing, domestic science, weaving, modelling, painting and drawing. Sewing, as a means of manual training, should be taught to pupils after they leave the kindergarten. All small stitches should be forbidden, only coarse work, requiring the exercise of the larger muscles, should be given to the child, as fine work is injurious to the sight and is apt to bring on nervous troubles, such as St. Vitnervous troubles, such as St. us' Dance.

The cord stitch and braiding coarse cord into a girdle, curtain cord or some other useful article, gives pleasant healthy exercise.

When the needle is first introduced it should be the large long-eyed needle, using coarse thread or wool and making large stitches on canvas.

Miss Watson illustrated all the different points by means of the blackboard and her numerous samples. The discussion led by Miss Maddock and participated in by many teachers present emphasized the importance of having sewing taught systematically.

The ladies tendered Miss Watson a most appreciative vote of thanks. Miss Jean Joy, the pioneer of domestic science in Canada and Principal of the Domestic Science Department of the Technical schools, Toronto, gave a demonstrated lecture on the preparation of some of our simple foods, a full report of which will appear in the next issue of The Farming World.

A British Columbia Institute

Ontario institute workers did good work in the West this fall. The Vancouver, B.C., Daily World, referring to a meeting held at Central Park near that city, speaks in very favorable terms of the addresses of Messrs. Blanchard and Anderson. The latter is Mr. D. C. Anderson, of Rugby, Ont., who addressed the meeting on Soil Cultivation and Clovers. Mr. Blanchard gave his experience in poultryraising. He kept Plymoutt Rocks, Brown Leghorns, and Black Minorcas. With an average of 168 hensthere had been received 24,062 cggs and \$110 from stock sales. The gross revenue had been \$3.05 from each hea, and the expense of feeding, etc., 80 cents each, leaving a net return of \$2.25 from each of the 168 hens. One pen of 50 Rocks had given an average of \$3.75 gross revenue, thus leaving a net profit of \$2.95 for each fowl. These are certainly good returns and show what can be done under favorable circumstances.

Mr. Anderson stated that three things were all-important in culti-vation, (1) never bring the cold subsoil to the surface. It is hun-gry and void of plant food. Loosen as much as possible, but keep it under. (2) do not plow manures too deep into soil, as this involves great waste; it gets beyond the reach of the plant. And (3) have the surface soil very fine and so that the plants can readily reach out to the available food in the seed bed. The plant will live for a very short time on food in seed, but immediately the rootlets ap-pear there must be food at hand for them to give success in farming. Barnyard manure was the most valuable fertilizer they could use, as it contained a large supply of humus, which was one of the necessary ingredients of plant food. In this the commercial fertilizers were all very deficient. In that district, where a cow was not kept, they might have considerable difficulty in getting barnyard manure. If this is so then the most beneficial course was to grow the common red clover. This plant, which in the East they had to cultivate with great care, grew there as a weed and in great abundance. It was valuable as a feed and as a manure.

The secretary of the institute gave some valuable information as to the imports into British Columbia which shows how important a market that province is for the Eastern stockman to develop. The following are the annual imports of agricultural products into that province:

Horses	\$ 140,000
Cattle and beef	237,000
Sheep and mutton .	167,000
Hogs and bacon	1,014,000
Eggs and poultry	319,000
Butter and cheese	810,000

Two broom sellers were rivals. One said to the other: "How can you undersell me, for I steal the stuff, and make the brooms myself?" "Whv." said the other, "I steal them ready-made."

In a school for colored children, there was a little boy who would persist, in saying "have went." The teacher kept him in one night and said: "Now while I am out of the room you may write "have gone' fifty times." When the teacher came back he looked at the boy's paper and found the task completed. Fifty times had the little darkey written the words "have gone." But, alas, upon the other side of the paper was written, "I have went home."

The Sugar Beet World

Devoted to Sugar Beet Culture in Canada and Allied Industries. Specially Representing the Farmers' Interests

Edited by JAMES FOWLER

Sugar Beetlets

Several years of experience in California have proven sugar-beet pulp of value for fattening cattle as well as for producing milk, and the fact is that the larger portion of the beet pulp in the State is consumed by cattle which are being fitted for the butcher's block.

When a pile of beet pulp has been subjected to the weather for some time the whole exposed surface decays to a depth of six to eight inches, forming a crust which serves as a seal to preserve the underlying material. Beet pulp may be said, therefore, to silo itself.

It is stated by some feeders that sugar-beet tops is one of the best feeds available for the production of a firm butter.

The beet pulp imparts no foreign or disagreeable flavor to the milk.

The effect of the pulp upon the flow of milk is to increase it both in quantity and quality.

Where the pulp must be hauled a long distance it should be as dry as possible on account of its great weight.

When the dairy is situated adjacent to a sugar factory beet pulp is the cheapest possible food.

Beet pulp with coarse hay or straw will do more for your cattle than a small grain ration.

Pulp should not be depended upon as the sole diet as it does not adequately nourish the animal.

Eighty pounds of pulp per head daily can be fed with profit.

The fertilizing value of a ton of sugar beet tops is estimated to be \$1.65.

The fertility removed from the soil by the growing of sugar beets is almost entirely replaced by the beet tops being allowed to remain on the land as a fertilizer.

Sugar beet molasses is also a valuable cattle food and cattle develop a great liking for it.

Galt.

It is now up to the local men to subscribe for \$100,000 pr.[erence stock and the sugar factory is assured. The factory, which is to cost \$700,000, will be one of the best that money can purchase, and will be completed by Sept. 1st, 1902. Acreage contracts to the amount of over 3,000 acres have been secured which assures at least 5,000 tons of beets the first season.

Guelph

One of the most entertaining subjects of the session of the Experi-

mental Union was the lectures of Dr. Wiley of Washington, D. C., on "Sugar Beets." Dr. Wiley is the chief chemist of the Department of Agriculture of Washington and the greatest authority on sugar beets on this continent. His lecture in the evening consisted, or rather was, explanatory of illustrations of limelight views thrown upon a screen. First was shown the proper kind of sugar beet and the proper position of the beet in the soil. Next was shown the shapes the beet ought not to be. Following this was an interesting series showing the beets at their growth every fortnight from planting until ma-turity. Views of the implements used in seeding and harvesting, and views showing the testing of beets for seed, the method of protecting the seeds from birds and insects, and threshing followed.

Then the manufacturing of the beet sugar was shown, the washing and slicing of beets, the diffusion batteries, centrifugals, filtering presses, vacuum pans, crystallizers. The method of loading pulp into farmers' wagons and presses for removing surplus water from pulp, views of the Caro Michigan factory and scenes of the streets and roads showing farmers bringing beets to the factory, and a view of the Berlin and Guelph delegation who visited that place recently was shown.

Several interesting points came out in discussion, and the lecture was continued the following afternoon, a full synopsis of which will appear in our next issue.

Dresden

The charter of the Dresden Sugar Company, Limited, arrived here on The incorporators Saturday. are James Davidson of Bay City, Mich., President ; John H. Walsh of Detroit, Mich., Secretary; S. J. Fitz-simmons of Detroit, Treasurer; Timothy Hurley of Detroit, and G. E. Weir of Dresden, Solicitor. The President is the well-known will President is the well-known mil-lionaire shipbuilder of Bay City; and he is taking an active interest in the factory. He has been here, looked over the site and the sur-rounding country and has promised that the factory will be in opera-tion in surely time to hereit the tion in ample time to handle the crop of beets for 1902. Representatives of three large American construction companies have been here recently at the invitation of the company to look over the ground preparatory to tendering for the building of the plant, the contract for which will be let in Bay City this week. Land has al-ready been procured for the site, and such work as can be done this winter will be commenced immediately. Already the farmers around the town have contracted some 2,200 acres, with very little solicitation. An agriculturist will go to work at once to secure the balance of the requisite 6,000 acres. Mr. Davidson promises that the plant will be a most modern one in every way. It will cost about \$600,-000, and have a capacity of 600 tons of beets daily. To meet the increased railway facilities necessary, the Michigan Central Railway will be extended from the north through Dresden to Ridgetown. Several hundred acres of beets were grown in this vicinity this season for the Lansing, Mich., factory. Thus the farmers have had some experience, and the soil has proven to be splendidly adapted to the growth of sugar beets. The company fully intend making the first barrel of beet sugar in the fall of 1902.

Berlin.

The Ontario Sugar Company are completing their plans for the factory at this point. Engineers have been over the site and plans are in a forward state. Acreage contracts for over 5,000 acres have already been written.

No plants in the United States has ever started under such favorable conditions as regards their beet supply and great things are expected from this factory.

The German Beet and Sugar Industry,

BY R BACH, MONTREAL, QUE.

When beet root sugar, basis 88 degrees rendement (about 94 per cent. polarisation) was the other day quoted at 7 shillings 6 pence per cwt. f. o. b. Hamburg, I knew the lowest point ever quoted had been reached that day, and ashamed I asked forgiveness from Professor Wolfe in Breslau (Prussian Silesia), for having laughed at his gloomy prediction, at a time when sugar was several shillings higher, that the price for 88 degrees would come down to 8 shillings, as soon as Cuba would be in the world's markets again with larger quantities under peaceful conditions. Brokeness Wolfe

ties under peaceful conditions. Professor Wolfe, a well known authority, was unfortunately only too right, and his prophecy of about two years ago has realized only too quickly. Now the entire sugar world has to face a crisis, which, although more or less expected some years, and therefore not come as a surprise, will test severely the sugar industry in its totality, the beet root sugar industry more especially. It will be face the severest storm, owing to her dominating position as a beet root sugar producing country.

The expected crisis had to come. The reason is over-production ev-erywhere. Year by year the growing of beets in Europe was on the largely ascending scale (we omit for the present the American production, and refer only to Europe), and the season 1901-02, which is now well under way everywhere, will be probably the largest ever had. Never mind the usual complaints about deceived expectations concerning the out-turn of quantity and quality of the roots, which are now pouring in. We hear this kind of complaint every year with such a touching punctuality and regularity, that we have to consider them as a good old-timed custom and nothing more. A farmer and a sugar manufacturer will never admit that they are satisfied, that is at least the rule in Germany, and most likely everywhere else too.

Germany will have, as mentioned, to weather the heaviest storm. The other "beet countries," especially France and Russia, are enjoying enormous bounties from their respective Governments, a favor which is not extended by the German Government to her beet sugar industry. We are very well aware that there exists a general impres-sion abroad, and especially with our Yankee neighbors, that it is just Germany, which receives the highest bounties for her sugar production. However, that may have been about 10 or 15 years ago. Since a considerable time this is decidedly not the case. During 1895 an Imperial Commission studied the question of the expenses in mediate used to the case of the expenses in making one cwt. sugar from cane, compared with one cwt. from beets, and it was found out that the cost was:

- 8.85 marks in West Indies.
- 8.53 marks in Java. 8.35 marks in Oueensland.
- 9.60 marks in Germany.

And the last figure is raised by Mr. D. Martineau, the well known London sugar refiner, to mark 9.95

To protect the home industry the German Government then decided to allow a premium of mark 1.30 per cwt. That is about the difference between cane and beet, cost price, an amount which is certainly not of such a grandeur as to make so much fuss and talk about, and justified, it is possible, that since 1895 the cost of producing may have been somewhat lessened by new processes in chemistry, new machines, etc. But then it is not worth while to change the premium for that reason every year.

It is true, for protection at home there exists since last year the so-called "Zucker Cartell," to which about 99 per cent. of all the Ger-man factories and refineries are now belonging. It gives valuable relief to the beet sugar factories in years when prices run down below mark 12.75 per cwt., basis 88 de-grees. In such cases the "Cartell" refunds to the factories down to the minimum of mark 9.35, that is, at the highest a maximum remuneration of mark 3.40 will be paid, and the factories don't receive a cent further, if prices, as in this year run down even to mark

7.50. This "Zucker Cartell," an imitation of a similar Austrian institution, is, however, a perfectly prition, is, however, a perfectly pri-vate affair. It acts only "intra muros" of Germany, within her frontiers, for sugar which is ex-clusively consumed in Germany, from which naturally follows that the German consuming people are enjoying the rather doubtful given from the factories, by exert-ing hicher prices for the refined ing higher prices for the refined goods, which they are consuming in one shape or the other. Those sugars sold for export

these sugars sold for export have nothing whatever to do with the "Cartell" and as the quantity of exported sugar amounts to about 1⁴ millions of tons, against scarcely ⁴ million of tons consump-tion in Cormany. the merchanism tion in Germany, the premium is only of limited benefit to the beet sugar factories.

However, in referring again to the expected crisis, although the outlook is not at all glorious just now, still there does not reign any actual fear about coming disasters within the circles of German sugar industries. Very nearly all the factories are of an undoubted high standing. They have had many good years and it will be no diffi-cult matter for them to face the coming storm with a kind of nonchalance, and even fight it for year or more, when sunshine will have to reign again. There must be a curtailing of the acreage culti-vated with beets for at least year or two. The factories are enjoying the widest credit with banks and therefore it is earnestly to be hoped that they will not act foolishly and run down the markets by throwing on them every pound of sugar as soon as it is ready for shipment. They will have to be very reticent sellers this year, only giving away what is necessary during the biggest producing months, October and November, and rather mortgage a good part of the pro-duction with their old known banks instead of selling at ruinous prices. Thus it may then happen, that the idea of many buyers, that sugar can be bought at any price, will after all prove an erroneous one, although we don't expect, of course, a considerable higher market but





simply a slow recovery to a fairer and sounder basis.

In such critical times it cannot too often be repeated, that a large sugar industry, which is working or rather wholly linked together with the farming interests, where in fact the manufacturer and farmer are actually only one body and soul, can never go to the bot-tom. There will be years, of course, where the factory is losing, but in such cases it is to be remembered that the partner, the farmer, is making money, for he has generally in such years a very big crop of roots, for which he receives the same price as arranged. Never mind how the quotations for sugar may stand, he receives the same proportion of pulp as feed, and by his beet-growing he clears continually the fields to a degree, that the next crop, which in most cases should not be beets again on the same field for two consecutive years, will under ordinary circumstances bring him an exceptionally good result, the reward for getting the land in such fine, clean order.

Where manufacturers and farmers are working as two apparently different but in fact as only one party, the difficulties will never be so hard, as that they could not be surmounted with a certain ease. In Germany this indispensable system exists now nearly with all factories and therefore the crisis, disliked as it will be, will not assume any dangerous aspects. If this season of 1901-1902 has been finished, the statements of the factories will in most cases show poor results, but then there is the bookkeeper for the Farming Department. He can blow with very satisfactory figures and after throwing both parts together, the shareholders of the factory (who are all farmers) will be delighted to learn that a fair divi-dend could be declared. This year it will be undoubtedly the work of it will be undoubtedly the work of the farmer. The next year it may be the turn of the manufacturer. "United they stand, divided they fall." This old proverb ought to be leading when the Ontario Sugar Industry is making the first steps.

Agriculture in Schools.

Every rural school in Austria has a garden attached in which agricultural experiments are conducted, and in all the schools of Europe the idea of industrialism is steadily advancing. Few parents now are willing to send their children to a school where he learns little but that which would take him away from the farm to the shops. Pestalozzi was himself a farmer and made farm labor and school work so co-operative that he never ceased to be a teacher of agriculture. Froebel went further, and insisted that education would give work an interest like that of play. President Elliot of Harvard, urges that instead of exporting raw material, the country that would prosper must export the things into which go skill and labor and brains, a skill that multiplies production. In saying this

he identifies himself with those who are promoting the industrial idea in schools.—Exchange.

OTT) MEINSHAUSEN, Pres., Tre .s. & Mgr. Au horized Capital \$250,000 American Copper, Brass and Iron Works MANUFACTURERS OF COMPLETE EQUIPMENTS FOR BREWERS, DISTILLERS, BEET SUGAR FACTORIES. **REFINERIES, GLUCOSE WORKS, ETC.** WILL CONTRACT FOR COMPLETE PLANTS IN ANY PART OF THE WORLD TELEPHONE MAIN 1296 ESTABLISHED 1867 Cable Address "MBINSHAUSEN" A.B.C. Code INCORPORATED 1890 113-119 Michigan St., cor. La Salle Ave., -CHICAGO, U.S.A. The American Construction Supply Co. Main Offices Western Department : 71 Broadway, New York, N.Y 401 Atwood Bldg., Chicago, Ill. Specialties:-BUILDING OF BEET SUGAR FACTORIES: AND BEET SUGAR FACTORY SUPPLIES. We have the record of building modern equipped and economical running factories. More than 20 years' experience in this special business. Correspon-dence solicited. We are also sole representatives of BUETTNER & MEYER, Urdingen, Germany, manufacturers of the best pulp drier in the world. This drier received the prize of 20,000 marks offered by the "Centralverein für die Rubenzucker-industrie" in Germany. ē Bartlett, Hayward & Co. Designers and Constructors_ **Beet Sugar Factories RESULTS GUARANTEED** Works and Main Office Branch Office . BALTIMORE, M.D. 100 Broadway, NEW YORK, N.Y. The Kilby Manufacturing Co. FOUNDERS AND MACHINISTS **Corner Lake and** New York Office : Cleveland, Ohio **Kirtland Streets**, 220 Broadway. Builders of Complete Machinery for Beet, Gane and Glucose Sugar Houses and Refineries.

The Agricultural Gazette

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

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

Annual Membership Fees :-- Cattle Breeders', \$1 ; Sheep Breeders', \$1 ; Swine Breeders', \$2. BENEFITS OF MEMBERSHIP.

BENEFITS OF MEMBERSHIP.
The cash member realways a free copy of each publication issued by the Association to which he belongs, thing the year in which he is a member. In the case of the swine Breeders' Association the sinelindes of the swine Records.
The members are charged \$1.00 per head.
The members are charged \$1.00, the member and the stock he has for sale are published once a month.
The name and all instructions are allowed to register sheep at 50c, per head, while members are charged \$1.00.
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List of Stock for Sale

DOMINION CATTLE BREEDERS' ASSOCIATION. Jerseys

Bull, L. J. C., Brampton .- Bull, 7 mos.; 3 heifers, 1 year.

Bhorthorns

Bonnycastle, F., Campbellford .--2 yearling bulls; 7 bull calves; cows; heifers and heifer calves.

Chapman, J. C., St. Thomas.-2 bulls, 9 and 13 mos.; 2 yearling beifers, and some heifer calves.

Hauser, Ignatius, Weisenburg.-2 bulls, 16 mos.; cow in cali; 3 heifer calves, 5 to 8 mos.; bull calf

2 mos.

McEwen, Robt., Byron .-- 1 bull calf. 8 months.

McInnis, Chas., Yeovil -30 young cattle, 4 to 20 mos.; bull and I cow

Martindale, F., & Son, York.-8 bulls, from 6 to 23 months.

Ayrshires

McCallum, T. D., Danville, Que. -3 young bulls fit for service; 4 bull calves, 8 to 12 months, young calves.

Taylor, F. W., Wellman's Corn-ers.--3 yearling bulls; a number of spring calves, both sexes. Yuill, J., & Son, Carlton Place.

-I bull, 12 months; 4 bull calves, under 3 months, females all ages. DOMINION SWINE BREEDERS' ASSOCIATION.

Yorkshires.

McCallum, T. D., Danville .--Young sows in farrow; boars and sows about 4 months.

Thurston Bros., Oak Heights.-1 boar, 20 mos.; 1 boar, 9 mos.; 1 sow, 12 mos.; 1 sow, 8 mos.; young pigs, both sexes, 10 weeks. Berkshires.

Bonnycastle, F., Campbellford -Young pigs of both sexes, from 6 weeks to 4 months.

Hauser, Ignatius, Weisenburg .to sows, 7 months; 2 sows in pig; 30 boars and sows, 6 to 10 weeks. McCallum, T. D., Danville, Que. -Young sows in farrow, boars and

sows about 4 months. McDonall, Wm. R., Ridgetown .-

1 boar, 6 months.

Yuill, J., & Sons, Carlton Place. -1 boar, 13 months; 1 boar, 9 months; 3 boars, 2 months; sows, all ages.

DOMINION SHEEP BREEDERS' ASSOCIATION Cotswoids.

Bonnycastle, F., Campbellford .---6 yearling rams; 8 ram lambs; ewes and ewe lambs. Shropshires

Yuill, J., & Son, Carlton Place. -1 ram, 2 years; 4 ram lambs; ewes, all ages.

N. W., Streetsville .-Switzer, Ram, 2 shears; 2 shearling rams; 5 ram lambs; ewes, all ages. Dorsets.

Hunter, John, Wyoming .--- Ewes and rams of different ages. Southdowns.

Roht Byron. - 2 McEwen, shearling rams; 6 ram lambs; 30 aged ewes; 10 shearling ewes and 20 ewe lambs.

Stock Wanted.

Ferguson, J. J., Agricultural College, Mich.—Two typical cows, each of Ayrshires and Guernsey breeds; also one first-class Jersey cow.

FARM HELP EXCHANGE.

The Farm Help Exchange has been started with the object of bringing together employers of farm and domestic labor and the employees. Any per-son wishing to obtain a position on a form of the endotries of the employees. Any per-dary, or any person wishing travant his or her farm or dair?, it reductates to A. P. Westervelt, amerany, the Stock Associations. In the case of persons wishing to employ help, the following, bould be given: particulars ato the kind of work to be done, probable length of single employment, the following are particular as to the kind of work work in which a position is desired, wages ex-tended and where last employed. Wages employment, the toilowing the particular department of farm work in which a position is desired, wages ex-tended and where last employed. These names when receiver in the two following received the particular only will be published the names belink receiver and the two following received the particular only will be published. These names when receiver the two far-mer and the published function for the two following received the particular only will be published, the names belink receiver the two following received the particular only will be published, the names belink perton file. The name the possible are female, may be oblighted function of the possible are restance, to the end that the two following received the area of the two following received the set of an the two posters, made or female, may be oblighted for the opportunity. The Farm Help Exchange has been started with a object of bringing together employers of farm

Help Wanted.

Wanted .- A man who thoroughly understands farm work, good milk-

er and teamster, Scotchman or Englishman preferred. Salary \$17.00 per month, beginning March 1st, for 9 months. No. 867. a.

Wanted.—A good farm hand, wil-ling to work, to feed hogs and ex-port cattle, a good milker, must be steady and reliable. A middle aged man preferred. Salary \$225 to \$240 per year. No. 868. .

A good man wanted for general work, must be reliable and farm trustworthy, kind to stock. Salary \$170 per year. No. 869. 8.

A good man for general farm work, must be reliable and trustworthy. Would prefer one who has had some experience in bush work and one that does not smoke. No. . 870.

Wanted.—A herdsman, a single man, who has had experience in feeding and fitting Shorthorns for shows and sales. Steady employment and good wages. No. 865 b.

Wanted .- Two good men, one experienced in taking care of dairy cattle and one a good farm hand, who will be expected to take care Must be reliable, of the horses. honest and of good moral character. No. 866.

Situations Wanted.

Engineer, aged 50, wants a posi-on to take charge of machinery tion on a farm, willing to assist with general work. Also is a fair general work. carpenter. No. 962. .

Wanted .- A situation as manager of a stock farm, by a married man, 27 years of age, who has had a great deal of experience, and is thoroughly competent and reliable. Good references can be given. No. 961.

N.B.-Where no pame is men-tioned in the advertisement. apply to A. P. Westervelt. Parliament Buildings, Toronto. giving number of advertisement.

Jersey Cattle Club

The annual meeting of the Can-adian Jersey Cattle Club will be held on Tuesday, December 31st, at p. m., in the Walker House, 1.30

Toronto. R. J. Fleming, Vice-President. R. Reid, Secretary.

Farmers' Institutes.

Farmers' Institutes. The this head the Superintendent of Farmer Institute work. This will include instruction to scretarise and other officers, general informa-tions to delease, etc. He will also form time to periments conducted at the various Agrings and the United States. In the Various Agrings and the



Daisy B. Dekol. Five Years Old. This cow gave 40 pounds of milk at one milking before her first calf was dropped. Record 11¹⁵ pounds of butter in seven davs in official test, when 25 months old. Property of G. W. Clemens, St. George, Ont.

The Selection and Breeding of Dairy Cows and How to Feed Them

By R. S. Stevenson, Ancaster

To the farmer who intends to make dairying a leading branch of his farming, the question of selecting animals suitable for the business, becomes of the greatest importance, for his future success or failure largely depends on the class of cattle with which he stocks his farm, as no one, so far, has made much of a success of dairying with **a** lot of cows of the beef type.

Now, we have amongst cows two distinct types, viz.: The beef type and the milk type. They are of quite opposite formation. The beef animal is of a square, stocky build, with heavy quarters, deep flank, broad over the top of the shoulders and a short, thick and round peek

and a short, thick and round neck. The dairy animal is of quite a different formation; is of a wedge shape, being broad behind, and tapering forward to thin shoulders. The quarters are thin, the flank well cut; the neck long, thin and flat. These are the general characteristics of the two types, and although we sometimes find a cow of the beef form that is a fair milker for a short time, they are not persistent milkers, and their heifer calves rarely make as good cows as they are themselves. The cow that milks for a long period is nearly always the most profitable cow. As a matter of fact, we can-not afford to keep cows that we have to board for six or seven months every year. There are too many cows of this kind on the farms of Ontario. There is no farmer who would submit to hav-ing three or four idle fellows sitting at his table, year after year, and earning nothing ; yet the same man often has three or four cows in his stable that are doing the

very same thing. We must weed out these robber cows if we expect to make dairving a paying business. Now, how are we to get cows that will pay? By breeding and selection. Take the best common cows and breed them to a good bull of one of our dairy breeds. Don't expect to get good cows from a beef-bred bull, any more than you would expect to get race horses from a Clydesdale. In selecting a bull find out what kind of a milk producer his mother was; also if she had a well-shaped udder, with all the teats perfect. This is a very important point, for if you breed from a bull whose dam had an imperfect udder, the probabilities are that a large majority of his heifers will be defective in the most important point of a cow, viz., the udder. This seems to be a defect that is transmitted through the bull with almost unerring certainty.

Select the best heifer calves from your best milkers. Never try to raise a puny, miserable calf. never make good cows, as they have not the constitution to stand heavy work in the dairy line. These calves must be fed in such a way that when they become cows they will go in the way we want them to, that is, produce milk, and not young as the habit of laying on firsh is very likely to stay with them all through life. Our own practice is to feed the calves with milk fresh from the cow, for about two weeks, then begin to substitute part separator milk, with the addition of a little scalded oil meal or flax seed, to take the place of or flax seed, to take the place of the butter fat we have removed, and by the time the calf is a month old it is generally entirely on skim milk and oil meal. At this time it will begin to eat a bittle oct here and here also tome little oat chop and bran, also some early cut clover. Allow it all it cares to eat of these foods. We continue the milk for seven or eight months, if possible, and the grain until over a year old. By this method we can raise big, strong calves without getting them too fat, and they will have the capacity for digesting large quantities of



Daisy B. Dekol. Showing a good udder development. Teats well placed and wide apart.

THE AGRICULTURAL GAZETTE.

coarse food, which is what we want in the dairy cow. Heifers should be bred to calve at from two years to two years and a half old. If they are allowed to go until they are three years old they are more are three years old they are more apt to get fleshy, and do not make as good cows. Heiters with first calves should be kept milking for a long time, as it is with the first cali that the habit of long milker is formed, and if they are allowed to dry up at say six months from calving, the probabilities are they will do the same thing every time.

In feeding cows for milk we must be governed a good deal by condi-tions in our choice of foods, so as to feed as economically as pos-sible. We must try to raise all the food ourselves, as when we have to buy it, it cuts quite a hole in the profits. There are certain rules, however, for compounding suitable rations, by which we must be guided to secure the best results. It has been found that cows to produce a large flow of milk, must be fed of foods that contain a large percentage of protein, or flesh-forming substances. Such foods as oats, peas, bran, oil cake and cotton cake, have been found to give the best results. Clover hay is also an excel-lent food, and whichever of these foods is the cheapest is best. This protein is the most expensive of all the foods with which we have to supply our cows, and it requires good judgment to tell which is the cheapest source from which to get it. The carbo-hydrates are comparatively cheap, as we get them in all our coarse foods, such as corn fodder, ensilage and straw. Roots are excellent for the production of milk, but they are more expensive than ensilage. Still, it always pays to have some, as the more variety we give our cows the better they will do.

The regular salting of cows is a very important matter, and one that I think is often neglected by farmers. Cows require from one to two ounces per day. The best plan is to have some salt where they can help themselves whenever they want it.

Cows also require a large quantity of good, pure water, and if it can be warmed in winter so much the better, for, if they are obliged to drink ice water, they cannot do their best, as it takes a large part of the food to warm that water to the temperature of their bodies.

In conclusion, the care of cows can be summed up in one word, Comfort, and the man who takes the most trouble in looking after the small details and makes his cows comfortable, is the man who is going to make the most money out of them.

DISCUSSION

Q .- How would you ventilate a basement stable ?

A .- R. S. Stevenson, Ancaster : By air-tight boxes running up through the roof, reaching down to within one foot of the stable floor. with one or two traps that could be opened and shut as needed.

Q .- Are concrete floors a success? A.-Yes, especially for cows. I do not find them cold, and can save all the liquid manure. They are durable and comparatively

cheap. Q.-What would you do for inflammation of the udder ?

A .- Bathe well with warm water and rub with sweet oil and laudanum.

Q .- Do vou believe m dehorning? Ã.-Yes.

Q.-Do you recommend milking cows to near calving ?

A .- Yes, to within two months of calving.

0.-Would you milk a cow before calving if her udder was distressing her

A.—Yes, if any danger of garget. Q.—Is whey or separator milk the best food for calves?

A .- Separator milk.

Q.-Would you dehorn calves or wait until older?

A .-- I would wait until two years. Q .- Do you place much importance on the escutcheon in judging dairy cows?

A.-I do not pin much faith in this, but only take it as one of many

Q.-Would you prefer Q.—Would you prefer spring calves being put on pasture? A.—No, keep in the stable. Q.—Do you find it practicable to

feed grain whole ? A .- No, I prefer grinding fine.

Q .- Would you feed chop wet ?

A .- No, especially if fed alone.

Q .- How long should cows milk ? A .- Until within six weeks or two months of freshening.

Q .- At what age should heifers calve ?

A .- At from two years to two years and six months.

Q .- Do you consider length of body an important factor in a dairy cow ?

A.-Ves. A long-bodied cow is more likely to be a large consumer of food than a short cow ; and, as a cow can only produce milk from the food she consumes, the big eater is always the more profitable. Beware of the shy feeder.

Q .- What is the best grain feed for cows ?

A .- The foods rich in protein, such as bran, oats, peas and oil-cake. A mixture of different grains is most desirable, as cows like a variety as much as we do ourselves.

0.-How much would it cost to put a supply of water into the barn from a well forty or fifty yards away?

A.-D. C. Anderson, Rugby : Eighty-five dollars for the wind-mill, \$15 for the tank, 8 cents a foot for pipe, and \$2 each for the metal water basins with lids on them. On the average farm \$150 would put water into most barns.

 Ω .—How do you get your own water supply? A.—I have a living spring some distance away, and I force the water up to my house with a hy-discution rame into a large tank. draulic ram, into a large tank. The house is higher than the buildings, and 1 have a pipe laid from the house to the barn, also across the road to my other farm.

Q.-Of what would you build a basement wall ?

A .- Three sides of stone and the front of frame. One of the best basement barns in our section has the basement entirely of wood and frame work on a stone foundation, raised about one foot above the ground.

Q.-Would you advise the raising of a low, old-fashioned frame barn?

A .- No, better results will be obtained by taking the old barn down, using what timber is in it. Add ten or twelve long posts, and then you have a good barn, with a fine basement for the animals.

Q. - Do you see many plank barns ?

A.—No, mostly frame. Q.—Would it not be better to have the cattle on the second story and have the manure below? It is handier to clean out the stables.

A.-Having the cattle in the basement, when it is properly built and ventilated, is far too valuable a space for a manure heap. In a dairy section, milk would be very liable to take up bad odors from the manure basement. Better to haul the manure direct to the field.

Q .- Have you ever lost calves by feeding separator milk ?

A.-Erland Lee, Stoney Creek: No, but have heard of people who have; think they must have been overfed or fed from dirty pails.

Q.—What is a proper standard to judge a cow by ? A.—W. C. Shearer, Bright: About

5,000 pounds of milk, or 260 pounds of butter. Any cow that will not produce either of these amounts in a season had better be fatted for the butcher.

Q.-How much grain should a fresh milch cow receive daily ?

A .- From three to five pounds of bran, two to four pounds of ground oats, and one to two pounds of oil cake. Total, from six to eleven pounds daily, according to ability. Q.-How long should a cow milk

each year ? A .- From nine to ten months if

she is a regular breeder. Q.-What is the proper, standard amount of milk or butter for a cow

vearly A .- Five thousand pounds of 31/2 per cent. milk, or 260 pounds of butter.

Q.--Can anything be done to train a heiler to be a persistent milker?

A .--- Yes. Feed her well and regularly, and milk her at least ten or eleven months her first season.

Q .- What is good to reduce a caked udder ?

A .- Bathe well twice a day with hot water, and apply camphorated oil, well rubbed in.

Q.-Do you believe in feeding grain while cows are dry ?

A.-Yes. A small grain ration is required to build up the constitution for the next year's work.

(To be Con inued.)

His Over Neat Wife.

The neatest woman in town Folks say I've got for a wife:

And what folks say is gospel truth This time, you bet your life.

Keturah Brown, she beats world

On bakin' breads and pies;

But her best holt is fightin' dirt And circumventin' flies.

Her temper's like her pie-crust, which

They're both uncommon short, An' tho' I am free-and-easy like

Sometimes she makes me snort. There ain't no sense in havin' things

So dum'd all-fired neat,

Nor sayin' ev'ry time I step, "Now, Zek'l wipe your feet!"

I can't set down in our best room,

It is so slick and spruce; Fact is, 'most everything we've

got's Too good for common use. Though next to godliness the Book

Puts cleanliness. I am bound To say Keturah's mighty apt

To run it in the ground.

There ain't no use in kickin'; I'm Prepared to bear my cross.

Some day, perhaps, I'll wear my crown

Keturah she can't boss Things round in heaven. An' since we're told

That there no moth nor rust Comes to corrupt, I guess it's safe To say there ain't no dust.

But oh, what will Keturah do

Within those pearly gates, If she no longer finds the dirt

That she so dearly hates? O'ershadowed heaven itself will be,

Engulfed in awful gloom, When my Keturah enters in

And cannot ilse a broom. Portland Transcript.

The Farming World Helpmates

BY M. E. GRAHAM.

Dear Helpmates .- Helpmate in this case does not mean wife, but it means the boy, girl, man or woman who helps along, I wish to thank you for responding so willingly.

There have been many replies. So many that it will be difficult to decide which are really the best, and if they continue to come in, we will have to try to persuade our editors to devote a little more space to our department, in order space to our department, in other that the many good replies may be published, and that they may ap-published, and that they may apcannot give the very best until all are in but will give some which, though not scoring quite so many points as some others, contain very creditable ideas on the subject, and the writers, though not winning prizes, will be rewarded by not

The Farm Home knowing that their thoughts are

helpful to others.

What education should the girl receive who expects to become a successful helpmate for the upto-date farmer ?

AN UP-TO DATE WIFE

"An up-to-date farmer would be supposed to have everything in first-class condition and be a good manager. He will possess the best of implements and keep the best stock.

"Having everything up-to-date, of course, he desires an up-to-date wife. She need not come from boarding or cooking school. She need only have a fair education, a proper knowledge of dairy and housework, a sincere interest in her husband's work and their home; education never comes amiss."

When home and lands are gone and spent.

Then learning is most excellent." Emma Woodley.

(Your note was very welcome, mma, thank you, for kind Emma, words.)

The next is from one of the younger helpmates, who has not had any difficulty in keeping within the one hundred word limit.

A COLLEGE EDUCATION

"The girl who expects to become the wife of a farmer should have as good an education as that of a lawyer or doctor."

"Gladys Reesor."

(Do you mean. Gladys, that she should pass the same examina-tions as do the doctor or lawyer? Or do you mean that she should have studies in some other lines equally as advanced as are theirs?)

A CITY GIRL WRITES

"A common school education would do in most cases. Some-times girls with very little education make better farmer's wives than those with a college education. A good manager is needed in the house as well as a good business head."

(Not many of us agree with you about "very little education.")

AN IDEAL HELPMATE FOR A FARMER.

"To be a successful helpmate for the up-to-date farmer the girl should be trained to be fond of reading, for as a high school edureating, for as a light school cur-cation is not possible for most girls, she could then educate her-self to be as well informed as those who have that opportunity. She should graduate in dairying from some Agricultural College, and should, if possible, study do-mestic science and bacteriology mestic science and bacteriology. The farmer's wife of the future will need at least knowledge in all these subjects if she is to keep pace with her scientific husband.

"Annie McLeod."

(You are right, Miss Annie, a nigh school education is not possible for most girls, and there are ideal girls who have educated themselves even better than some who spend years at high schools. but to quote Miss Emina, "learning is most excellent," next writer emphatically states that.)

THE HIGHER EDUCATION & NECESSITY. "Much is being said during the present age concerning the higher education of women. The ques-tion arises, to what degree should this education extend in order to successfully fill the various grades successing in the various grades in life which may fall to her lot. Should the girl who is to spend her life on the farm aspire to a degree of excellence in this respect? I answer, yes. She should have, if possible, a high school training, be versed in domestic science and have a fair knowledge of music, both vocal and instrumental.

"By the first she is enabled to keep accounts in a correct and systematic form, carry on the correspondence in a proper way and to read the various questions of the day being discussed in the newspapers intelligently, thereby acquiring more knowledge. "By the second she becomes able

to select and cook the foods which are necessary to sustain and build up the body, knowing the elements it contains and the requirements of each.

"By the last she can not only entertain her guests, but pass plea-santly her leisure time with her family, thereby helping to keep the boys and girls on the farm. "Possessing all these requirements

helpmate for the modern farmer. "A Farmer's Daughter."

(I particularly like your reasons I thought I could answer this question, but I find I have gained many ideas from others.)

The girls have been doing all the talking, now we will hear from the men and boys.

A BOY'S HELPMATE.

"The first important feature of the education of a girl who is to be a helpmate for an up-to-date farmer should be of that nature which would develop a fitness to meet with the world generally, such as literature, arts, and mathematics.

"Secondly, if not already taught by a wise mother, a course of in-struction in cooking and sewing. Thirdly, musical qualifications, by which to brighten a home. Fourth-ly, botany, by which to enjoy na-ture in flower and field. Fifthly, physics and chemistry, by which to understand the composition of everyday articles and to develop an ingenious mind.

" Reginald."

(I am inclined to think you do

not wish your name to appear. Yours also favors a higher education. Does the study of these subjects have the effect you claim?)

A RELIGIOUS, REFINED, THRIFTY HELP MATE.

"Evey girl should receive religious instruction, have a thorough public and high school education, a fair knowledge of music, and be educated to refinement; but the successful helpmate for the up-todate farmer requires, in addition, a thorough knowledge and judicious training in every branch of household duties.

She must also be educated to perform every duty thoroughly and systematically, to be an energetic, thrifty housekeeper, and to take a deep interest in the home and all its surroundings.

" N. Foster."

(If by religious instruction you mean she should be instructed in honesty, usefulness, kindness, love, patience, and pleasantness, I quite agree with you.)

AIM AT PERFECTION.

To successfully perform the daties of the up-to-date farmer's wife, a girl should receive that education which will enable her thoroughly to understand the art of home-making, which, in my mind, is a combination of many branches of knowledge. It would be rather difficult to decide what time should be spent at school in order to possess this knowledge, as it depends largely upon the nature and abiity of the pupil.

However, most of us will agree that the modern public school course is absolutely necessary. If, after finishing this course she should wish to go to college or perfect herself in any particular art, I say by all means help her do so, because, when we have reached the point of perfection in one study, it encourages us to bring others to the same level in our mind.

To the farm home-maker I think there is nothing more important than to understand the preparation, cooking, and serving of lood. She should realize the value of money, and know how to keep accounts so that she may keep strict account of her household expenditure. Then, if she has a practical, scientific method of performing her regular duties, she will have ample time for recreation and self-improvement. Her experience will be useful to others, and she will make herself useful and attractive in the eyes of her husband by taking cheerful interest in his afiairs and making his home happy.

"Marie Mackay."

(It does indeed depend on the ability of the pupil as to the time required to learn any subject; perhaps also on the ability of the teacher to understand the method to use with different pupils. A change of teachers sometimes turns the dull pupil into a bright, and the clever pupil into a backward. one. I hope an up-to-date farmer has the good taste to call you his "Sweet Marie.")

DOMESTIC SCIENCE HELPMATE.

" I would say that the education needed by the girl who expects to become the wife of an up-to-date farmer is such as she will receive in a domestic science school. a domestic There she will obtain both the practise and theory in every department of domestic work, including marketing (a point generally neglected in the home-trained girl). She should also spend a term in a dairy school; know something about gardening, and read enough of general literature to be able to converse intelligently. Having thus qualified herself, let us hope that the up-to-date farmer will be satisfied and not expect her to go on duty round the barnyard.

"Alice Hollingworth." (The photo will reach you some day. Time and patience brought the snail to America.)

Hints by May Manton.

WOMAN'S SHIRT WAIST OR BLOUSE, NO. 3587.

To be made with or without the fitted living.

fitted lining. Tasteful shirt waists are in constant demand. Each new design finds its place and creates its own vogue. This extremely pretty



3987 Shirt Waist, 32 to 40 Bust.

model is one of the latest out and includes several novel features. As shown it is of French-grey doe-skin flannel with the narrow front of white, but both plain and figured flannels, all waist cloths and silks are appropriate, while the design is suited also to the embroidered waist lengths.

The fitted lining closes at the centre front and terminates at the waist line. On it are arranged the portions of the waist proper. The fronts are laid in two tucks at each shoulder, that extend to the yoke depth and are then left free to form soft fulness over bust. The narrow vest portion is plain and is caught by the buttons to the right side and buttoned into place at the left. The backs are tucked from shoulders to waist and give the desired tapering effect. The sleeves give a bishop effect but are arranged over fitted lining, the lower edges of which are flared to form cuits. At the neck is a stock composed of the grey with front of white that closes with the front at the left side.

To cut this waist for a woman of medium size $3\frac{3}{5}$ yards of material 21 inches wide, $3\frac{1}{2}$ yards 27 inches wide or $1\frac{3}{6}$ yards 44 inches wide will be required, with $\frac{5}{5}$ yards for narrow front, cuffs and front of collar when contrasting color is used.

The pattern 3987 is cut in sizes for a 32, 34, 36, 38 and 40 inch bust measure.

One Way of Roasting a Turkey

"Ninety-nine women out of every one hundred, ninety-nine cooks out of every one-hundred will bake a turkey with the back to the pan," said a New Orleans man who keeps in touch with the kitchen, "and this is a mistake. I said ninety-nine out of every hundred. Rather should I have said that the mis-take is almost universally made. But few cooks ever think of cooking the turkey the other way. There seems to be a demand for well-browned turkey breast. But in browning the breast they sacrifice the sweetness of this part of the fowl. The best way to pre-pare a turkey is to bake it with the breast down. I learned this lesson from Mme. Begue, whose place down in the old quarter, near the French market, has become famed all over the country. She never thinks of baking a turkey with the breast up. The breast is turned to the bottom of the pan, and instead of being dry and taste-less when it is served is richly flavored and as sweet and juicy as one would care to have it. You see, all the fine flavoring of the turkey, the juice of the dressing and all the daintier touches flow down toward the breast of the fowl, and when the white meat is served you get the full benefit of every flavor added during the processes of prepar-



ing and baking the turkey, in ad-dition to the distinctive taste of the fowl itself.

"Inconvenient and awkward? Not at all. It is just as easy to cook a turkey in this way as in any other way, and the result is infinitely more satisfactory. It is no trouble to arrange the fowl in the pan; if you desire to place the fowl on the table before carving it you will find that it will look quite as well as it would if baked in the usual way, and certainly it will taste much better than it would if you baked the breast until it was dry and flavorless."-New Orleans Times-Democrat.

Two Good Soups

Celery Soup .- Take a quart of white stock, put in a saucepan and to it add four sticks of celery cut in small pieces, salt and pepper, a small, finely cut onion and a lump of sugar. Simmer slowly till the celery is quite soft and then strain the liquor from it. Mash the celery and rub it through a sieve, Mash the and to every teacupful add a small teaspoonful of cornflour and two teacupfuls of cream. Put back into the stock and return to the fire. Serve directly it boils. Hard fire. croutons of fried bread with it.

Mock Turtle Soup .- Boil a calf's liver and heart with a knuckle of veal for four hours, skimming well; then strain. Chop the meat fine and add to it a chopped onion, salt, pepper and ground cloves to taste. Thicken a little with flour and cook a few minutes over a hot fire. When ready to serve pour the soup over the yolks of four hard-boiled eggs, cut up, and a few slices of lemon.

After Christmas Dinner.

"What's the matter, Ethel?" asked Uncle John. "You look so mournful."

"That's just the matter," said Ethel. "I am mor'n full." And then she wondered why everybody laughed.-Motherhood.

Household Hints.

One part plums and two parts crabapples makes an excellent meat jelly.

A fine meat sauce is made by adding vinegar and spices to quince marmalade.

Tomatoes canned whole make a toothsome and handsome winter salad.

To prevent pudding cloths stick-ing to the pudding rub them with butter, then dredge them thickly with flour. Rub pudding molds of tin or earthenware with butter, and then dredge them with granu-lated sugar. This forms a shin-ing, delicate coat on the outside of the pudding. A hit-and-miss rag carpet, with

a striped warp, is much less troub-

le to weave than one where the rags are woven in stripes. It costs several cents a vard less to weave a rug or a carpet in this way than if the rags are woven in stripes. As a rule, such carpets are more tasteful in design.

Since We Got the Mortgage Paid.

ROY FARRELL GREENE

We've done a lot of scrimpin' an' alivin' hand-to-mouth, We've dreaded too wet weather

an' we've worried over drouth. For the thing kept drawin' int'-

rest, whether crops were good or bad.

An', raisin' much or little, seemed it swallowed all we had.

The women folks were savin', an' there ain't a bit of doubt

But that things they really needed lots of times they done without.

So we're breathin' somewhat easy, an' we're feelin' less afraid

Of Providence's workin's, since we got the mortagage paid.

I wish I'd kept a record of the things that mortgage ate,

In principal an' int'rest, from be-

ginnin' down to date!-

ginnin' down to date!--A hundred dozen chickens, likely fowl with yellow legs. A thousand pounds of butter an' twelve hundred dozen eggs, Some four or five good wheat crops, an' at least one crop of corn,

An' oats, an' rye,-it swallowed in its lifetime, sure's you're born, Besides the work and worry, ere its

appetite was stayed! o we're feelin' more contented since we got the mortgage paid. So

We've reached the point, I reckon, where we've got a right to rest, An' loaf around, an' visit, wear our

go-to-meetin' best,-

go-to-meetin best,-Neglectin' nothin' urgent, under-stand, about the place, But simply slowin' down a bit, an' restin' in the race!

In time I'll get the windmill I've been wantin', I suppose;

The girls can have their organ, an'

we'll all wear better clothes.

For we've always pulled together, while we saved an' scrimped an' prayed,

An' it seems there's more to work for since we got the mortgage paid.

We Eat Nearly Seven Pounds Daily.

The average adult in exercise requires as a day's ration about six pounds and thirteen ounces. Of this amount about five pounds will be water found in the common foods and taken as beverage. Of the re-maining part one-fourth will be nitrogenous matter, three-fourths carbonaceous, with about two hun-dred grains mineral matter.—No-vember Ladies' Home Journal.



FOR IMMEDIATE SALE.

SPLENDID 300-Acre Farm, 5 miles from Brant-ford. 240 acres cleared. Three two-story stone houses, 11 rooms, cellars i cull size. Frame barn 45 x 100, al-0 3 other barns, 3 drive houses, 3 heds, 30, acre orchard. 60 rods from railway, excellent soil. For full particulars, address

S. G. READ, Broker, 129 Colborne St., Brantford, Ont.

for the New Pictorial. STOCK DOCTOR AND LIVE STOCK CVCLOPEDIA, revised to 1800 with the assist-ance of the Professors of the Ontario Agriculture College, Guelph. The finest illustrated, the chapter and best book of its kind ever published. Large wages for agents. Particulars mailed free. Address-

AGENTS WANTED

The Farming World.

A PAPER FOR FARMERS AND STOCKMEN.

Publisher, D. T. MCAINSH. J. W. WHEATON, B.A. . Editor, .

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 Postage is prepaid by the publisher for all subscriptions in Canada and the Funct States. For all other countries in the Postal Union add fifty certain to the sentence of the se
- letter. Advertising Rates on approximately a

Winter Fair Prize Winners CATTLE.

SHORTHORNS-Steer, 2 years and under 3-1, Geo. Dickie, Hyde Park. Steer, under 1 year-1, Jos. Kirby, under 3--1, Geo. Dickie, Hvide Park. Steer, under 1 year-1, Jos. Kirby, Armstrong's Mills: 2, Robt. McEwen, Byron; 3, G. Walker, Elderton. Cow or heifer, 3 years and over-1. And B. Baxter, Hamilton 2, J. & R. Mc-Queen, Elora; 3, John Brown, Galt. Heifer, 2 years and under 3--1, H. Smith, Hay, 2, E. Jeffs & Sons, Bond Head; 3, James Gibbs, Brocks-dale. Heifer, under 2 years-1, Jas.

Leask, Greenbank; 2, E. Brien & Son, Ridgetown; 3, J. Fried & Son, Rose-ville. Best steer-Robt. McEwen, Byron. Best cow or heiter-Jas. Leask, Greenbank.

HEREFORD AND POLLED ANGUS - Steer or heiter, 2 years and under 3 - 4, F, W. Stone Stock Co., Guelph ; 2, and 3, Walter Hall, Washington. Steer or heiter, 1 year and under 2-1 and 3, F. W. Stone Stock Co.; 2, W. Hall. Steer or heiter, under 1 year-1 and 2, Jas. Bowman, Guelph; 3, S. Young, Binkham. Cow or heiter 3 years and over-1, F. W. Stone Stock Co.; 2 and 3, W. Hall. HEREFORD AND POLLED ANGUS

GALLOWAY AND DEVON-Steer or GALLOWAY AND DEVON-Steel heiter, 2 years and under 3-1, A. M. & R. Shaw, Brantiordi, 2, W. J. Rudd, Eden Mills, Steer or heifer, J year and under 2-1, A. M. & R. Shaw, 2 and 3, W. J. Rudd. Steer or heifer, under 1 year-1, W. J. Rudd, 2, A. M. & R. Shaw, 3, D. McCrae, Guelph. Cow or heifer-1, N. McCrae, Guelph. Cow or heifer-1, N. McCrae, Guelph. Cow or heifer-1, D. McCrae, Guelph. Cow or heifer-1, D. McCrae, Guelph. Cow or heifer-1, M. McCrae, Guelph. Cow or D. McCrae.

GRADE OR CROSS-Steer, 2 years and under 3-1, Jas. Leask; 2, R. J. Robinson, Ailsa Craig; 3, T. Lloyd-Jones & Sons, Burtord. Steer, 1 year and under 2-1, Jas. Green, Feryear and under 2-1, Jas. Green, Pei-gus: 2, Jas. Leask 3, John Dickinson, Eramosa. Steer, under 1 year-1, J. Fried & Son, Roseville: 2, N. H. Black, Rockwood 3, A. McDougal, Guelph. Cow or heifer, 3 years or over-1, Jas. Leask; 2, Jas. Bowman; over--i, Jas. Leask; 2, Jas. Howman; 3, Jas. Green. Heifr, 2 years and under 3--i, Jas. Leask; 2, J. Fried & Som, I, G. & W. Parkinson, Eramosa. Heiter, under 2 years--1, Jas. Leask, Greenhank; 2, M. Wolfe, Hespeler; 3, Geo. Kitching, Corwhin. Best steer, any age, sired by pure bred Aberdeen-bares, bull--t, Lag. Bowman. Best Angus bull-1, Jas. Bowman. Best Grade steer, fed in County of Wellington, and owned 3 months previous to show-Jas, Green. Best Grade steer, show-Jas. Green. Best Grade steer, sired by pure bred Shorthorn bull-1, Jas. Leask; 2, Jas. Green.

Poultry and Eggs.

Advertisements under this head one cent a word. Cash must accompany all orders under \$2,00. No. display type or cu s allowed. 'Each initial and num-ber counts as one word.

BROWN LEGHOKNS, torty choice c ckerels and a few May pullets. Grand birds, carfy and pro-itific laying strain, pullets lay at fire months. While prolific laying its foremost in breeding standard quali-ications not discarded, as this strain work instantion. The discarded strain strain strain son. John B Petiti, Fruidland, Ort.

CORTY MAMMOTH bronze turkeys for sale, of good quality and size, have a fine tom at head of fack bed trom Imp. Leca and also some fine hens, have one that wan 1st prize three years in succession, and at West Derham and Darlington Fall Fair I won 1st and 3rt on turkeys. Chick- now will crate safe and ensure safe delivery for \$2.50 for toms and \$2.00 for hens. Samuel Snowden, Hox 205, Bowmanville.

A LL Prize-Winning Strains-Bronze Turkeys, sired by Imported Tom, that won second at Pan Am-erican-Narraxansett Turkey and Pekin Ducks. A ELLIOTT, Pond Mills, Ont. London Exp.

BUFF Rocks, White, Golden, Wyand tts, Brahmas, Andalusians, Brown Leghorns Rou n Ducks, Toulouse Geese, White Turkeys; A 1 stork; \$110 53, JAMES MATHERAL, Drumbo, Out:

BRONZE TURKEVS.--My stock has won first and second pemiums at the largest shows in England, Ireland, United States, and Canada. My stock pleases customers, as I have sent out 503 turkeys and only foury were dissatished. Choice stock now and only four were dissatisfied. for sale. W. I. Bell, Angus, Ont.

MAMMOTH BRONZE Turkeys and Toulouse Gesse. For Sale-Forty head of turkeys and thirty Toulouse gerse, bed from the greatest prize winning strains in America. On our first exhibit as the great Torono In ustrain Exposition, Sept. 1801, we won on Bronze turkeys first and second Okhisted, us first and works. Salifaction garanneed and correspondence cheerfully answered. Please enclose sham for repip. Jas. Ford & Sons, Drumquin, Ont. P.S.-All turkeys bred from a grand imported tom.

Best three export steers-1, James Rennie, Blackwater: 2, G. B. Hood, Guelph: 3, John Brown, Galt; 4, J. Fried & Sons.

Best pair fat animals, any age breed, bred and fed by exhibitor (Bell Organ Cup)-1, Jas. Leask.

Best animal, any age or breed, bred and fed by exhibitor (Halliday Cup) -1, James Leask.

A Word to Farmers....

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serving as a model which any person follow. A copy of "Be Your Own Law-yer" will be furnished free to any reader of THE FARMING WORLD who will send 2 new yearly subscriptions.

THE FARMING WORLD, Confederation Life Building, TORONTO.

FOR FARMERS AND STOCKMEN

SHEEP

SHEEP COTSWOLD-Ewe, under 1 year-1 and 2, J. C. Ross, Jarvis; 3, E. Brien & Sons, Ridgetown. Wether 1 year and under 2-1, 2 and 3, John Park & Sons, Burgessville. Wether, under 1 year-1 and 2, John Rawlings, Ravenswood; 3 and 4, John Park & Sons. Three wethers, under 1 year-1, John Rawlings; 2 and 3, John Park & Son. Three ewes, under 1 year-1, J. C. Ross; 2, John Raw-lings; 3, E. Brien & Sons. Best three wether lambs (special), John Rawwether lambs (special), John Rawlings

LINCOLN-Ewe, under 1 year-1
and 2, J. T. Gibson, Dentield; 3, G. Walker, Ilderton. Wether, 1 year and under 2-1, 2 and 3, J. T. Gibson.
Wether, under 1 year-1 and 2, G. Walker, 3, J. T. Gibson. Three wethers, under 1 year-1, J. T. Gibson, 2, G. Walker, Ewes under 1 year-1, J. T. Gibson; 2, and 3, G. Walker.
LEICESTERE-Ewe, under 1 year-1, and 2, John Kelly, Shakespeare; 3, A. & W. Whitelaw, Guelph. Wether, 1 year and under 2-1, Orr & Lillico, 3, J. M. Gardhouse, Highfield, 3, John Kelly. Wether, under 1 year -1 and 2, Orr & Lillico; 3, J. M. Gardhouse, Highfield, 3, John Kelly. Wether, under 1 year -1 and 2, Orr & Lillico; 3, J. M. Gardhouse, Wethers, under 1 year -1 and 2, Orr & Lillico; 3, J. M. Gardhouse, Wethers, under 1 year -1 and 2, Orr & Lillico; 3, J. M. Bards, Woodstock. Ewes, under 1 year -1, John Hoggard, Ranelagh. Three ewe lambs (special)-1, John Hoggard, 2, J. and W. B. Watt; 3, D. H. Taylor.
OXFORD-Ewe, under 1 year-1

lor.
OXFORD-Ewe, under 1 year-1, Smith Evans, Gourock; 2 and 3, K.
Finlayson, Campbellton. Wether, 1 year and under 2-1 and 2, J. H.
Juli; 3, S. Evans, 3, J. H.
Juli. Wethers, under 1 year-1, S.
Evans; 2, J. H. Juli. Ewes, under 1 year-1, K. Finlayson; 2, S. Evans; 3, J. H. Juli. Yearling wether (special)-1 and 2, J. H.
Juli. Lamb (special)-1, S. Evans; 2, (special)-1 and 2, J. H. Juli. Lamb (special)-1, S. Evans; 2, K. Finlayson. Three wether lamb; (special)-1, S. Evans; 2, (special)-1, S. Evans, 2, J. H. Juli. Tare (special)-1, S. Evans; 2, J. H. Juli. Three ewe lamb (special)-1, S.
Evans; 2, K. Finlayson. Second. (special)-1, S.
Evans; 2, K. Finlayson. (special)-1, S.
SHROPSHIRE-Ewe, under 1 year
-1 and 2, John Campbell, Woodville; 3, Geo. B. Phin, Hespeler. Wether, 1 year and under 2-1, R. Gisson, Delay OXFORD-Ewe, under

3, Geo. B. Inin, Hespeier, wetner, i year and under 2-1, R. Gibson, Dela-ware: 2, Jno. Camubell: 3, W. E. Wright, Glanworth. Wether, under 1, year-1 and 2, R. Gibson; 3, John Campbell. Three wethers, under 1, war-2, B. Gibson; a, Ino Comptell year-1 and 1, wethers, under 1 year-1, R. Gibson: 2, Jno Campbell: 3, W. E. Wright. Ewes, under 1 year-1, Jno. Campbell: 2, Geo. B., Phin: 3, W. E. Wright. Best wether, 1 year and under 2 (special)-1, R. Gibson: 2, Jno. Campbell: 3, W. E. Wright. Best wether, under 1 year (special)-1 and 2, R. Gibson: 3. The Campbell. Three wether lambsecial) -1 and 2, R. Gibson; 3, Campbell. Three wether lambs- J. R. Gibson: 2, John Campbell; 3,
 W. E. Wright. Wether, sired by sired by Shropshire ram out of grade ewe-1 and 2, Jno. Campbell; 3, T. Lloyd-

SOUTHDOWN-Ewe, under I year-Stornhown-Ewe, under i year-i and 2, Jao. Jackson & Son, A bing-don; 3, Wm. Martin, Binbrook. Weth-er, I year and under 2-1, Telfer Bros., Paris; 2, W. H. Beattie, Witton Grove; 3, T. C. Douglas, Galt, Wether under I wares. Tails the there Grove; 3, T. C. Douglas, Galt. Wether under 1 year-1, Telter Bros: 2 and 3, T. C. Douglas. Three wethers, under 1 year-1, T. C. Douglas: 2, Telfer Bros.; 3, Wm. Martin. Three ewes, under 1 year-1, Jno. Jackson & Son: 2, Wm. Martin: 3, T. C. Douglas. Wether, 1 year and under 2 (special) -1, Telfer Bros.; 2, W. H. Beattie; 3, T. C. Douglas. Wether, under 1 year (special)-1, Telfer Bros.; 2, T. C.

Douglas; 3, Wm. Martin. Three Ewe lambs (special)-1, Jno. Jackson & Sons; 2, Wm. Martin; 3, T. C. Douglas.

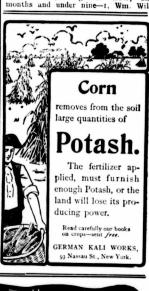
DORSET HORN OR MERINO-Ewe DORSET HORN OR MERINO-Ewe under 1 year-1 and 2, k. H. Harding, Thorndale; 3, Jno. Hunter, Wyoming: Wether, 1 year and under 2--1, W. II. Beattie; 2, R. H. Harding; 3, Jno. Hunter. Wether, under 1 year-1, k. H. Harding; 2 and 3, Jno. Hunter. HAMPSHIKE AND SUFFOLK--Ewe, under 1 year-1, Telfer Bros; 2, Jas. Bowman: 3, Jno. Kelly. Wether, 1 year and under 2--1 and 2, James Bowman. Wether, under 1 year, 1, 2 and 3, James Bowman.

and 3, James Bowman. GRADES AND CROSSES-Ewe.

under 1 year-1, John Campbell; 2, And. Richardson, Peepabun; 3, R. And. Richardson, Peepabun; 3, R. Gibson, Ewe, under I year-I, Hast-ings Bros, Cross Hill, 2, John Camp-bell; 3, Andrew Richardson. Ewe or Ewe or wether under 2 years-John Campbell.

SWINE.

BERKSHIRE-Barrow, six months and under nine-1, Snell & Lyons, Snelgrove: 2, Geo. Green, Fairview; 3, Durham & Cavan, Toronto. Barrow, under six months-1, Durham &





Cavan: 2 and 3, Snell & Lyons. Sow nine months and under fifteen-1, Geo. Green: 2, John Kitching, Corwhin: 3, Sow, Sur. Wil-Wm. Wilson, Snelgrove. Sow, months and under nine-1. Wm.

10

THE FARMING WORLD

son; 2, Geo. Green; 3, Snell & Lyons. Sow under six months-1, Geo. Green; 2 and 3, Snell & Lyons. Three pigs offspring of one sow, bred by eshibi-tor-1, Geo. Green; 2 and 3, Snell & Lyone. Lyons

Lyons. YORKSHIRES—Barrow, six months and under nine—1, J. E. Brethour, Burford; 2, R. J. Kerr, Miniosa; 3, Colin Campbell, Guelph, Barrow, under six months—1, H. Dedels, Bres-leau; 2, H. J. Davis, Woodstock; 3, J. Featherston & Son, Streetsville, Sow, nine months and under filteen— 1, J. E. Brethour; 2 and 3, J. Feath-erston & Son. Sow, six months and erston & Son. Sow, six months and under nine-1 and 2, J. E. Brethour 3, H. J. Davies. Sow, under six under nume-r and 2, J. E. Brethour; 3, H. J. Davies. Sow, under six months-1, H. Dedels; 2 and 3, J. E. Brethour. Three pags, offspring of one sow--1, J. E. Brethour; 2, H. Dedels; 3, H. J. Davis.

CHESTER WHITES-Barrow, six months and under nine-1 and 2, Ben-nett & Pardo, Charing Cross; 3, D. six DeCourcy, Bornholm. Barrow, under six months-1, D. DeCourcy: 2 and 3, Bennett & Pardo. Sow, nine months and under filteen-t and 2, Bennett & Pardo: 3, D. DeCourcy. Sow, six and under fitteen-1 and 2, 16 nett & Pardo: 3, D. DeCourse, Sow, six months and under nine-1 and 2, Ben-nett & Pardo: 3, D. DeCourse, Sow, under six months-1 and 2, Bennett & Pardo: 3, D. DeCourse, Three pigs, offspring of one sow-1 and 3, Bennett & Pardo; 2, D. DeCourcy.

POLAND CHINA - Barrow, six months and under nine-1 and 2, R, L. Smyth, Fargo; 3, W. M. Smith, L. Snyth, Farge; 3, W. M. Smith, Scotland. Barrow under six months-1, 2 and 3, R. L. Smyth. Sow, nine 1, 2 and 3, K. L. Smyth. Sow, nine months and under filteen-t and 3, R. L. Smyth: 2, W. M. Smith. Sow, six months and under nine-t. R. L. Smyth: 2 and 3, W. M. Smith. Sow, under six months-t, 2 and 3, R. L. Smyth. Three pigs, offspring of one sow-t, R. L. Smyth. 2 and 3, W. M. Smith. Three pigs. Smith

ESSEX—Barrow, six months and under nine—1, T. A. McClure, Mea-dowvale; 2 and 3, J. Featherston & Son. Barrow, under six months—1 and 2, Featherston & Son 3, T. A. McClure, Sow, nine months and un-der (fitem=1 and 2 Featherston A. der filten-1 and 3, Featherston & Son: 2, T. A. McClure. Sow, six months and under nine-1, T. A. Mc-Clure; 2 and 3, Featherstone & Son. Sow, under six months-1, T. A. Mc-Clure; 2 and 3, Featherston & Son. Three pigs, offspring of one sow-1 and 2, Featherston & Son.

TAMWORTH-Barrow. six months and under nine-1, A. Elliott & Son, Galt: 2, D. Douglas & Son, Mitchell: 3, J. C. Nichol, Hubrey. Barrow, un-der six months-A. Elliott & Son. der six months-A. Elliott & Son. Sow, nine months and under fifteen-1, Douglas & Son; 2, Elliott & Son; 3, J. C. Nichol. Sow, nine months and under nine-1, Douglas & Son 2, J. C. Nichol: 3, Elliott & Son. Sow under six months-1, 2 and 3, W. R. McDonald, Ridgetown. Three pigs, offspring of one sow-1, Douglas & Son: 2, Elliott & Son. 3, J. C. Nichol.

DUROC-JERSEYS - Barrow, DUROC-JERSEYS — Barrow, six months and under nine-1 and 3, W. N. Tape, Bentpath: 2, W. M. Smith. Barrow, under six months-1, 2, and 3, W. N. Tape. Sow, nine months and under filteen-1, W. M. Smith: 2 and 3, W. N. Tape. Sow, six months and under nine-1 and 2, W. N. Tape: 3, W. M. Smith. Sow, un-der six months-1 and 3, W. N. Tape: 2, W. M. Smith. Three pigs, offspring of one sow-1 and 3, W. N. Tape; 2, W. M. Smith. GRADES AND CROSSES_Barrow. six

six

Elliott & Son; 2, Bennett & Pardo; 3, W. M. Smith. Barrov, under six months—1, Bennett & Pardo; 2, Jno. Park & Son; 3, J. C. Nichol. Sow, six months and under nine—1 and 2, Elliott & Son; 3, Durham & Cavan. Sow, under six months—1, Elliott & Son; 2, Park & Son; 3, J. C. Nichol. EXPORT BACON HOGS—Three pure breds—1 and 3, J. E. Brethour; 2, Featherston & Son; 4, J. R. New-

ell & Son. Three grades and crossesell & Son. Three grades and crosses-1, Elliott & Son; 2, Park & Son; 3, James Rettie, Norwich. Best hogs, any breed-J. E. Brethour. Three bacon hogs from Wellington County-1, D. Matheson, Coningsby. Best pen of four bacon hogs, between 170 and 200 pounds-(The Wm. Davies Co. prize)-1, Featherston & Son; 2, J. E. Brethour.



PURE-BRED STOCK NOTES AND NEWS FROM THE BREEDERS

These columns are set apart exclusively for the use of breeders of pure-bred stock and poultry. Any information as to importations made, the sale and pur hase of stock and the Our desire is berds and flocks that is not in the nature of an advertisement will be welcomed. Our desire is to make this the medium for conveying information as to the transfer of pure-bred animals and the condition of live stock throughout the country. The co-operation of all breeders is sarnesily oblicited in making this department as usiful and as interesting as possible. The existor reserves the right to eliminate any matter that he may consider beer suited to our advertising columns.

Horses

Mr. A. Henderson, M. P., Buscot Park, Faringdon, has let his famous Shire stallion, Markeaton Royal Harold, to the Montgomeryshire Society for next season for $f_{1,0000}$. It will be remembered that this enterprising society hired from Mr. Henderson last season Buscot Harold, the illustrious son of the above horse. Buscot Harold will, therefore, stand at home next Beason—Mark Lane Express.

Cattle.

Some very good prices were received for Shorthorns at the Chicago Fat Stock Show. They carried off the honors of the sale ring. Sixty-nine head sold for \$3,3,075, an average of \$634 a head. Fiftytwo cows sold for \$33,075, or \$647 each, and 17 bulls for \$10,085, or \$593 each. The highest priced cow was Missie, bred by W. S. Marr of Aberdeenshire, Scotland, and brought out by Arthur Johnston. This cow sold to W. C. Edwards & Co., Rockland, Ont., for the handsome sum of \$6,000. Messrs. Edwards are to be congraculated upon their purchase. She was just out of quarantine and was exported expressly for this sale.

8wine.

D. C. Flatt & Sons, Millgrove, Ont., also came in for some very high prices at Chicago. They sold four head of Yorkshires for \$1,650. One boar sold for \$700.

Provincial Winter Fair.

(Continued from page 668.)

Grades and Crosses were a good show, comprising entries from A. Elliott & Son, Bennett & Pardo, W. M. Smith, J. Park & Son, J. C. Nicol, Durham & Caven and Wm. Wilson, awards being considerably divided amongst them, with A. Elliott & Son receiving the major share of the best prizes. Judge, R. H. Harding.

POULTRY.

The poultry display at the Winter Fair, was second to no other department of the show. The number of entries in this class was greater than last year by a hundred or two. A noticable feature of the show was the display of the farmers' breeds. This display is growing larger every year, indicating somewhat of the growth of the poultry industry throughout the country. Quite an improvement has been effected in the poultry quarters over last year by increased light which makes the place one of the show was greatly improved by the addition of 500 new coops. These took the place of the old unsightly wooden coops that have done duty at the Ontario Fair for so long. The show throughout was well managed and one of the very best shows ever held in Canada. More room however is badly needed for the display of poultry supplies, and ap-diances. The dealers in this line were seriously hampered for want of space to display their wares in.

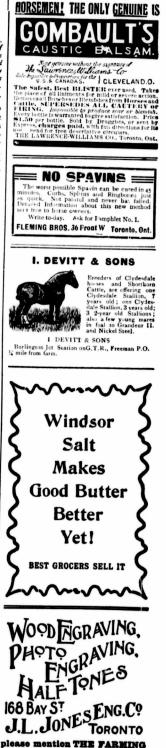
Plymouth Rocks outshone The all others in point of numbers, while the quality was very good. Never in this province has a more even and higher quality and a lar-ger number of Barred Rocks been shown. In cockerels there were 57 birds shown and only 6 prizes given so that 51 exhibitors went home without any. The Barred Rocks, though not so numerous were of better and more even quality than those at the Pan-American. There was a very good show of Buff Rocks, especially in the young classes. They were grand in color and well-developed.

Light Brahmas were not a very heavy class, but of good quality. The Dark Brahmas were very good and ahead of last year's exhibit in quality and numbers. The Buff Cochins turned out in about the same strength as last year and the quality was good. Other varieties of this breed were not out in large numbers. There was an extra good lot of Langshans. They were good in size and color with a large entry.

The Wyandottes were a great class, all varieties being well filled with the white variety standing next to the Barred Rocks in numbers. There was the biggest show of Dominiques seen in years. These are a cross between the Javas and Rocks, and a very useful bird. The show of Javas were about as usual.

Another large display was the Leghorns. The White, Brown and Buff varieties were very strong, while the others were out in usual numbers. There were some Spanish, but they were not up to the usual quality. This breed is gradually dying out as breeders find no demand for them. The Minorca class was not as strong as usual, owing to some of best birds being shut out, owing to late arrival. The Andalusion were out in their usual strength and quality. The Dorkings made a very fine class, the Silver Grays being exceptionality good. A breed that is fast coming to the front is the Orpington. There was an extra large display especially of young birds. These are the coming farmers' fowl.

WORLD.



The display of the fancy varieties was about as usual with most of the entries divided between a couple of exhibitors in each class. The only class of special note was the Game, there being some very fine specimens of Indian Game present.

TURKEYS AND GEESE

An encouraging feature of the show was the display of turkeys. There was a large exhibit with some very fine specimens, includ-ing some Pan-American winners present. The Bronze turkeys were present. The bronze turkeys were the strongest and exceptionally good in young birds. About the usual display of geese was made with the classes pretty well filled. Ducks were out in good force with Rouens and Pekins making the largest showing.

TRESSED POULTRY.

The display of dressed poultry was very good and formed one of the best educational features of the show. In the exhibits there were samples of birds properly dressed and finished, and others not so well finished, so that visitors were able to make comparisons and carry away valuable lessons. There were some very fine specimens of tur-keys dressed for the Christmas trade.

POULTRY APPLIANCES

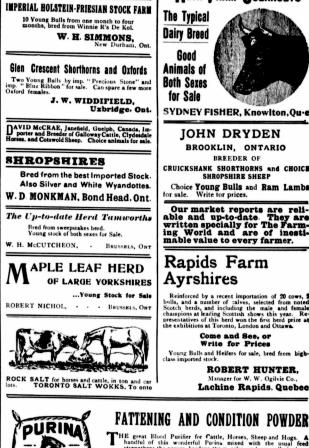
Considering the limited space there was a good display of poul-try appliances and supplies. The chief exhibitors of those were A. J. Morgan, London and C. J. Daniel, Toronto, both of whom made creditable and full displays. J. E. Meyer, Kussoth, also showed some incubators.

CRAMMING CHICKENS

Another valuable exhibit was made by the Poultry Department of the Ontario Agricultural college, consisting of fattening crates with the live birds in. The methods of feeding these were shown and twice a day Mr. Graham, the manager, gave an exhibition of feeding chickens from these crates by the cramming machine.

EXPERIMENTAL FARM EXHIBIT.

One of the most striking and attractive features of the dressed poultry exhibited was the display of dressed poultry and eggs from the poultry department of the Experimental Farm, Ottawa. The collection consisted of cockerels of Buff Orpington, White Wyandotte and Rhode Island breeds and a large bird of Light Brahma-Plymouth Rock cross dressed as the English farmers sell on their market, and other birds dressed as the English poulterer sells to his cus-tomers. The birds in the latter case were drawn and trussed ready for the oven. Turkeys and a goose were similarly dressed. There were a large number of new laid eggs arranged in glass goblets. The fowl were placed on dishes and the whole was tastefully arranged. The exhibit was a grand object lesson to the farmers and was most favor-ably commented on. It is understood that a similar display will be made at the Amherst, N. S., Fat Stock Show now going on.



ALVA FARM GUERNSEYS



SYDNEY FISHER, Knowlton, Qu.e

JOHN DRYDEN BROOKLIN, ONTARIO

BREEDER OF

CRUICKSHANK SHORTHORNS and CHOICE SHROPSHIRE SHEEP

Choice Young Bulls and Ram Lambs r sale. Write tor prices.

Our market reports are reli-able and up-to-date. They are written specially for The Farm-ing World and are of inesti-mable value to every farmer.

Rapids Farm Ayrshires

Reinforced by a recent importation of 20 cows, 1 buils, and a number of calves, selected from noted Scotch herds, and including the male and female champions at leading Scottish shows this year. Re-presentatives of this herd won the first herd prize at the exhibitions at Toronto, London and Ottawa.

Come and See, or Write for Prices

ROBERT HUNTER,

Manager for W. W. Ogilvie Co. Lachine Rapids. Quebee



FARM.

Rockland, Ont. On the C.P.R. and G.T.R. Railways

Special bargains on young bulls of superior merit and select Scotch breed-ing. Also thick young heifers at the right prices.

Ayrshires, Jerseys, Shropshire Sheep, and Clydesdale Horses.

Post Office, Telegraph Office, and Steamboat Landing, Rookland, Ont., on the C.P.R. W. BARNET, Manager.

FATTENING AND CONDITION POWDER

THE great Blood Purifier for Cattle, Horses, Sheep and Hogs. A handful of this wonderful Purina mixed with the usual feed strengthens the nerves, hardens the m-scles, and generally invigor-ates. Recommended by eminent veterinary surgeons in Canada and United States.

Gustave LaBelle & Co. Montreal, Que.

W. C. EDWARDS & CO. Breeders andImporters PINE GROVE STOCK

LAURENTIAN STOCK and DAIRY FARM, North Nation Mills, Que.

Archives imported and home-bree berd headed by imported Tam Gien Sud, No. 1710 D. A. H. B. Jerseys allof the celebrated St. Lambert family berd beaded by Lingar Fogis of St. Anne's 5700 A. J. C. C. Herkshire Pigs. Young stock of all the above breeds for sale.

Post Office, Telegraph Office, and Railway Station, North Nation Mills, P.Q., on the C.P.R. C.P.R. A. F. SOHRYER, Manager



are acknowledged to be the best type of bacon hog to produce the field carcinety for the best English trade. CHAMPJONSHIP HE for the best English trade. DUBTRIAL EXHIBITION POR NINE YEARS also sweepstakes on Dressed Carcase at Provincial Win-ter Show. We have on hand now a large berd of different ages. Our prices are reasonable and the quality is guar-anteed to be choles. Write

BRETHOUR & SAUNDERS. Burford, Ontario

ALWAYS MENTION THE FARMING WORLD WHEN WRITING ADVERTISERS.

Market Review and Forecast

Office of The Farming World, Confederation Life Building, Toronto, Dec. 16th, 1901. The wholesale trade has entered upon the usual quiet holiday period and no material improvement need be expected till after the New Year. Collections, generally speaking, have been good. The volume of trade has on the whole been larger than during the preceding year. Money keeps in good demand and many call and time loans have been placed at 5 per cent. Discount rates on mercantile paper range from 6 to 7 per cent.

Wheat prices have soared pretty high during the week, making an advance of 7c to 7/c during the past two or three weeks and about 16c to 17c per bushel higher than the lowest prices of this season's crop. In the face of the statistical position of the crop, it is hard to account for the advance. Since the middle of August the visible supply of wheat in Canada and the United States has increased 29,000,000 bushels as against 12,000,000 bushels for the same period of last year. The visible supply is now within 6,000,000 bushels of what it was last year at this time. The exports of the present cereal year so far are 132,000,000 bushels as against 51,000,000 bushels for the same period last year. These figures certainly favor lower values and indicate that present advanced values are largely speculative. However, the high prices of coarse grains may have something to do with present values. It is to do with present values. It is hard to say therefore, whether these higher values will continue. Towards the end of the week the market was not so strong and cable reports were easier. Manitoba has ruled strong at 74%, Fort Wil-liam for No. 1 hard and 70% for No. 1 Northern. The market here is easier and lower at 75c to 76c for red and white, and 66%c for goose, middle freights, and 75c for spring east. On Toronto farmers' market red and white bring 70c to 78c, goose 66½ and spring fife 70c per bushel.

Oats and Barley.

The oat market keeps firm and active. Dealers complain that high prices are curtailing business. Oats are a little easier here at 44c to 45c for No. 2 white, middle freights. On the farmers' market

here oats bring 49% per bushel. Malting barley is scarce and the market is firm here at 51c to 57c as to quality. On Toronto far-mers' market malt barley brings from 53% to 62c per bushel.

Peas and Corn.

The pea market, generally speaking, is strong, though prices are a little firmer here at 82c west, 83c middle freights, and 84c east. On

The Canada Permanent & Western Canada Mortgage Corporation Head Office, Toronto St., Toronto SAVINGS DEPARTMENT Invested Funds \$23,000,000 inn manna mmmm

the farmers' market small peas bring 78c per bushel.

The corn market keeps firm. Canadian yellow is quoted here at 61c in car lots west.

Bran and Shorts.

Ontario bran is quoted at Montreal at \$18 to \$19 and shorts at \$21 to \$22 in car lots. Manitoba in bags is about \$1 per ton higher. City mills here sell bran at \$19 and shorts at \$22 in car lots f. o. b. Toronto.

Potatoes and Beans.

The potato market keeps firm. Montreal quotations are Soc per bag for choice in car lots. Car lots are scarce here and sell for 70c on track. On Toronto farmers' market potatoes bring 75c to 8oc per bag

The bean market is quiet but steady. Montreal quotations are \$1.35 per bushel for car lots and \$1.40 to \$1.45 for broken lots. Car lots have been selling west of here at \$1.30 per bushel. The demand is fair here and prices are steady for choice hand picked at \$1.60 to \$1.65 and unpicked at \$1.40 to \$1.50 per bushel.

May and Straw.

Shortage of cars seems to be hampering business in the hay trade. Montreal quotations are \$9,30 to \$9,50 for No. 2 baled hay on track there in car lots and mix-ed at \$8.75 this week's delivery. There is a firmer demand here for haled hay and prives are higher at solution ball hay and prices are higher at \$9.00 to \$9.50 in car lots on track. Baled straw is quoted at \$5 to \$5.50 in car lots on track. On Toronto farmers' market timothy brings brings \$10.50 to \$12 and clover \$7 to \$8.50 and sheaf straw \$9 to \$10 per ton.

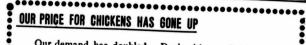
Eggs and Poultry.

The English market for eggs keeps strong. Fresh cold storage stock have sold at Montreal at 16c to 19% in large lots and fresh gathered stock are quoted there at 21c to 21%. The market here is steady and strong with offerings of strictly new-laid scarce. Case lots of new-laid bring 25c and fresh gathered 18c to 20c per dozen. On Toronto farmers' market new-laid bring 25c to 3oc a dozen.

Hundreds of tons of dead Canadian poultry are now on the way to Great Britain for the Christmas markets and may be said to be the choicest stock that ever found its way to the other side. The residue has been shipped to the local markets. Montreal dealers complain that a great lot is coming their way and it is not of very choice quality and has to be disposed of at low prices. Some of it has been hold was a superfered badly packed, which has interfered with the selling. The best offerings are quoted there at 8c to 81/c for turkeys, 7c to 7/c for chickens, 5/c to 6c for geese, and 7c to 8/c per lb. for ducks in large lots. There has been only a fair demand here and offerings are liberal, but mostly of poor quality. Dressed turkeys are quoted at 61/c to 8c and geese at 5% to 6c per lb. to the trade and 5% to be per 10, to the trade and ducks at 40c to 75c, and chickens at 20c to 50c per pair. On Tor-onto farmers' market live and dressed chickens bring 25c to 50c and ducks 45c to 6oc per pair, and turkeys 8½c to 10½c and geese 6½c to 7c per lb. The Canadian Produce Co., 36

and 38 Esplanade East, Toronto,

THERE HAS BEEN MUCH TALK about Pyny-Balsam, the greatest modera remedy for coughs and colds. It cures quickly and certainly, 25c. Of all deal-ers. Made by proprietors of Perry Davis' Pain-Killer.



Our demand has doubled. Deal with a reliable firm; be careful of strangers. See our prices on this page.

THE CANADIAN PRODUCE CO., TORONTO ALWAYS MENTION THE FARMING WORLD WHEN WRITING ADVERTISERS.

will pay until further notice for spring chickens 5¢ per lb. For hens (including last year's birds) hens (including last year's birds) 2¹/₂c per lb. For ducklings 5c per lb. Crates supplied free and express paid up to 50c per 100 lbs, of birds. These prices are for live weight.

The demand still keeps good in England for Canadian seeds. There is a firmer feeling on this side. Red clover is quoted at Montreal at \$8.25 to \$9.75, alsike \$10.75 to to \$12.75 and timothy at \$5.57 to \$6.25 per cwt. On Toronto far-mers' market alsike brings \$6 to \$8.25, red clover \$4.80 to \$5.10, and timothy \$2 to \$2.50 per bushel.

Fruit

No. 1 apples sell for \$4.50 to \$5 per barrel at Montreal in large lots. On Toronto farmers' market apples bring from \$2.50 to \$4.50 per barrel.

Cheese

The decided improvement in the cheese situation mentioned last week continues and the market has assumed a much healthier tone. Cable advanced 6s during the week and prices have gone up another notch on this side. It now looks as if dealers who have bought consid-erably of the early fall cheese will make good money. There is five months of non-production before us and stocks are none too large to supply the ordinary consumptive demand for that period. Things are firm at Montreal where finest westerns are quoted at 10c and finest easterns at $9\frac{1}{2}c$. The market is, however, rather a waiting one, as holders are not inclined to sell quickly.

Butter

The butter market keeps steady. though cable reports show the English market quiet and easy. Choice Canadian is quoted at London at 105s to 107s, and finest at 99s to 1028. The Montreal Trade Bulletin says this of last week's trade:

"The market is steady, several lots of choice winter creamery being sold yesterday at 201/c to 201/c, and sales of 150 tubs were made to the local trade at 201/2c. Good to fine sells at 19c to 20¹/₄c. In dairy butter there is very little doing, most of the purchases of Western on Lower Ports account of late being at 15½ to 16½ for common to fair. Choice selections for city trade range from 17c to 17½c. The exports during the past week from Portland were 1,994 packages." Creamery sells well here at 200

to 22c for prints and 19c to 20c for solids. The demand for dairy is strong and the market shows some improvement. There is less turnip flavor arriving, and as a result prices are higher at 17c to 18c for lb. rolls, 17c for large rolls and 16c for tubs in large lots. On Toronto farmers' market lb. rolls bring 15c to 17c and crocks 14c to 17c per lb.

Cattle

Generally speaking, the cattle situation continues the same with

THE FARMING WORLD

advance in prices for choice :111 quality of butchers and exporters. Cables rule steady. There was a was a Cables rule steady. There was a light run of live stock at Toronio cattle market on Friday, composed of 727 cattle, 1,050 hogs, 1,430 sheep and lambs, 20 calves and 1,-800 turkeys. The fat cattle for Xmas trade were fairly good, but too few to supply the demand, there being many dealers from outside points looking for Xmas sup-There were plenty of the plies. inferior and common grades of fat cattle, though there was no great demand for them, but they all sold, some of them at very low prices. The bulk of exporters sold at \$4.65 to \$5.25 per cwt. Butchers' cattle were firmer, owing to light supplies of choice quality. Xmas animals were from 25c to 50c per cwt. dearer than earlier in the week. All the best animals were quickly bought up.

Export Cattle-Choice loads of these are worth from \$4.70 to \$5.25 per cwt., and light ones $5_{4.25}$ to $5_{4.65}$ per cwt, and agate ones $5_{4.25}$ to $5_{4.65}$ per cwt. Heavy export bulls sold at $5_{4.12}$ to $5_{4.40}$ and light, ones at $5_{3.50}$ to $5_{3.70}$ per cwt., choice export cows sold at \$3.40 to \$4.00 per cwt.

Butchers' Cattle .- Choice picked lots of these, equal in quality to the best exporters, weighing 1,150 to 1,260 lbs. each, for the Xmas trade, sold at \$4.50 to \$5.25 per cwt., good cattle at \$3.80 to \$4.00, medium at \$3.40 to \$3.55 and inferior to common at \$2.25 to \$3.25 per cwt.

Feeders-Heavy, well-bred steers from 1,100 to 1,200 lbs. each, sold at $\$_{3,25}$ to $\$_{3,75}$, and other quality at $\$_{3,25}$ to $\$_{3,25}$ to $\$_{3,50}$ per ewt. Light steers, 900 to 1,000 lbs. each sold at \$3.00 to \$3.20 per cwt. Feeding bulls for the bytes 1,000 to 1,300 lbs. each, sold at \$2.50 to \$3.00 per cwt.

Stockers.- Vearling steers weigh-ing 500 to 800 lbs. each sold at \$2.50 to \$3.00, and off colors and those of inferior quality at \$1.75 to \$2.00 per cwt. Light stock bulls, 500 to S00 lbs. each, sold at \$1.75 to \$2.50 per cwt.

Calves .- These are in fair demand at Buffalo. Good to choice veals bring \$4.75 to \$7.50 per cwt. At Toronto market ordinary calves bring \$2 to \$10 each.

Milch Cows .- These sold at \$30 to \$50 each.

Sheep and Lambs.

There was a liberal delivery of sheep and lambs, but prices re-mained firm, especially for lambs which sold as high as \$4 per (wt. for a few extra choice lots of grain fed ewes and wethers. Prices for sheep were firm at \$3.00 to \$3.25 \$2.50 for bucks. Spring lambs sold at \$3.00 to \$3.50 each and \$3.50 to \$3.85 per cwt.

Eirick Bros., East Buffalo, write us on Dec. 14th as follows:

us on Dec. 14th as follows: "Receipts to-day light—about 6 cars, up to present writing—and market ruled active and firm on the basis of \$5.00 to \$5.10 for strictly good, handy-weight ewe

LOW WIDE-TIRE WHEELS



FOR WAGONS Made to fit your axles.

If you do not already know of the great advantages, send at once for Catalogue to the

Dominion Wrought Iron Wheel Co.

9 and 11 Brock Ave., TORONTO, ONT.



The Razor Steel Secret Temper, Cross-Sut Saw



We take pleasure in offering to the public a Saw manufacturshich offering to the public a Saw piece and the process and reference the steel, gives a scenar cutting edge and holds it long-"must hold a keen cutting edge." This scenar process for degrees is known and used and the process of the process of the steel, "must hold a keen cutting edge." The scenar are diptic ground thin back, requiring to to back. you, when you go to buy a Saw, to ask for the Maple Leef, Rator Sitel, Scenet Temper Saw, and if you are to light and the best. The scenario to the start of the start of the start and the start of that some other Saw is as good, and if you are to light a scenario of quality, as some of the poorest steel make is now branded silver yeard. We have the sole right for the "Rator Steel" the start.

some steel.

steel. We have the sole right for the "Raror Steel" brand. It does not pay to buy a Saw for one dollar lessand lose 25c. per day in labor. Your Saw must hold a keen edge to do a large day's work. Thousand's of three Saws are shipped to the United States and sold at a higher price than the best Amari-can Saws.

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SHURLY & DIETRICH, GALT, ONT.

and wether lambs, the buck lambs are selling at \$4.50, and extreme heavy lambs—100 lbs. and up-wards—at \$4.75 to \$4.85. The market is strong and in pretty good shape, and although we look for a fair supply here on Monday, we don't believe that the trade will be any lower, in fact, everything looks more favorable, and with cold weather setting in, which is expected, I believe we will have a good, healthy, strong market here next week and advise shipments."

The hog market has again ad-vanced. On Friday select bacon hogs sold at \$6.25 per cwt., an advance of $12\frac{1}{2}$ over the week pre-vious. Fats sold at \$5.62¹/₂, and lights at \$5.87% per cwt. Unculled car lots sold at from \$6.00 to \$6.10 per cwt.

For the week ending December 21st, the Wm. Davies Co., Ioronto, will pay \$6.25 per cwt. for select bacon hogs, \$6.00 for lights and \$6.00 for fats: The Trade Bulletin's London

cable of Dec. 12 re Canadian bacon reads thus: "The market is steady at the decline of last week. No. 1 Canadian sides 54s to 58s.

Horses

The horse trade continues dull. Some few have changed hands at Montreal during the week and the values of the best class of horses are firm with an upward tendency while inferior animals are hard to sell. Quotations there are: Car-riage horses, \$175 to \$350; heavy draughts, \$125 to \$225; light roadsters, drivers and saddles, \$100 to \$250; remounts. \$110 to \$145; common stock, \$50 to \$80. General trade is quiet here and

there is nothing doing excepting in a few second hand horses, for which no guarantee will be given. W. Harland Smith shipped 220 army horses last week for the new mounted rifles. These were a very fine lot and were purchased in Ontario. Orders for these horses are being filled in the West, Quebec and the Maritime Provinces.

The Carcass Contest

The list of winners in carcass competitions came to hand just before going to press. We can not give the full list in this issue. A Grade Angus won the Sweepstakes in the cattle class. In bacon hogs the Sweepstakes was won by Al-fred Hales, Guelph, on a Yorkshire and Berkshire Cross. In pure breds first place went to J. E. Brethour, Burford, Ont., for Yorkshires. There was no Sweepstakes prize in the mutton carcass classes. We will give the complete list of winners in this department next week.

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Micoun W T ljan02

Facts. Notwithstanding the viciously untrue statements persistently put out by the "Newfane Perjurer," the following facts cannot be truthfully denied.

The De Laval machines **WERE** awarded the **ONLY** Gold Medal for cream separators at the Pan-American.

The De Laval machines **WERE** awarded the Grand Prize (Highest Award) at Paris 1900. (See advt. on another page).

The letter from the Model Dairy management and employees WAS written Oct. 21st.

The official skimming record of the De Laval machines during its allotted run WAS .0161.

The highest test of skim milk of the De Laval WAS .08 at 3,800 revolutions.

The official skimming record of the U.S machine during its allotted run WAS .0543.

The De Laval machine at Buffalo **WAS** run by the employees of Model Dairy only.

The De Laval machine **WAS** in every instance (except one, and that one at 3,800) run at regular advertised speed of between 5,600 and 6,000.

The U.S. machine **WAS** run, washed and handled during the entire test by one Chapman, a U.S. employee, bowl balancer and separator expert.

The U.S. WAS run at an excessive speed (II,000 to I2,000), SHORT CAPACITY and THIN, UNCOMMERCIAL CREAM.

The highest skim-milk test of the U.S. .27 AT 12,000 REVOLUTIONS PER MINUTE.

The De Laval machine **WAS NOT** returned to Works to be rebuilt.

The U.S. **WAS** changed twice before they could accomplish any better skimming than by old fashioned setting pans.

The De Laval machine **WAS NOT** an especially selected one ; neither was there any time taken to adjust it.

Engineer Downey **WAS** present during every run of the U.S. machines.

The De Laval **WAS NOT** replaced by the U.S., neither did the De Laval at any time run unsteady.

The De Laval IS used by every prominent and successful creamery and dairyman in every country on the Globe.

The U.S. is used **ONLY** as a rule by a few unknown and misguided dairymen who have purchased them through a mistaken notion of "cheapness."

The statements herein contained can be substantiated in every instance.

