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THE FARMER'S ADVOCATE & HOME MAGAZINE

THE LEADING AGRICULTURAL JOURNAL IN THE DOMINION.

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The FARMER'S ADVOCATE is published on or about the first of each month. Is impartial and independent of all cliquee or parties, handsomely illustrated with original engravings, and furnishes the most profitable, practical and reliable informa-tion for farmers, dairymen, gardeners and stockmen, of any publication in Canada.

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THE FARMER'S ADVOCATE, or

Death of Mr. J. W. Bartlett.

Mr. J. W. Bartlett, chief clerk in the Manitoba Department of Agriculture, passed away from this life and its activities on the morning of Sunday, April 3rd, after a painful illness of ten days, arising from an inflammatory affection of the bowels. In February last Mr. Bartlett had reached the age of 41 years, having been born near Glencoe, in the county of Middlesex, Ontario, where his parents still reside. He was the eldest of a large family, all of whom are still living. His earlier years were devoted to practical agriculture, and being of an enquiring, progressive turn of mind he devoted close study to subjects related to that important avocation. It is related that when quite a boy he on one occasion imagined that farming was too slow for him, and applied for and secured a situation in a store. After a few days he commenced to ask himself if that were what he was cut out for. He said he felt ashamed that he, an able bodied young man, should be shirking behind a counter, while there was plenty of work at home; so he dropped the yard stick and his situation, and went back to the old farm. "The world has need of lots of such boys now," writes one of our readers in a letter to the editor of the FARMER'S ADVOCATE. Mr. Bartlett early entered heartily into the work of associations and institutes designed to advance interests of farmers, and found time tribute to several journals, finally becoming identified with the FARMER'S ADVOCATE in the east, where his work gave such satisfaction that a couple of years ago he was placed in editorial charge of the Manitoba and Western Edition. Last fall he was tendered and accepted the chief clerkship in the Provincial Department of Agriculture and Immigration, which he filled to the entire satisfaction of the Premier and his colleagues. During the recent session of the Legislature Hon. Mr. Greenway took occasion on the floor of the House to refer to his admirable qualities for the position. He also did good service to the Province in connection with the Cattle Breeders', Poultry and Dairy Associations and Central Institute, and on the Industrial Exhibition Board. He was an unselfish man of sterling integrity-one in whom his fellows could trust, and whose good qualities of head and heart had in a short time endeared him to his associates in the offices of the Local Government. His remains were interred in St. James' Cemetery, Winnipeg.

Manitoba Farmers' Alliance

A meeting of delegates from various lodges of the Farmers' Alliance was held at the office of the FARMER'S ADVOCATE, on Wednesday March 30th for the purpose of forming a Provincial Alliance for Manitoba. The following officers were elected :-

President-J. H. McClure

Vice-President—G. S. McKay. Secretary—E. C. Harvey.

- Treasurer-A. G McKenzie. Tellers-H. Corbett, J. B. Barber.

Trustees-Mr. Porteous, R. S. Conklin, E.

Millige. Auditors-A. W. H. Stewart, S. Sims.

It was moved by S. Sims, seconded by D. Wright, that the president of the newly organized Provincial Alliance be empowered to grant commissons to any other members of the Alliance who may wish to organize new subordinate alliances. Carried.

Moved by A. G. McKenzie, seconed by Mr. Porteous, that each district alliance send its president and secretary, and each subordinate lodge send one representative to form the Provincial Alliance. Carried.

It was moved by J. B. Barber, seconded by D. Wright, that the provincial executive correspond with the Patrons of Industry, to find out upon what terms an amalgamation of the two organizations could be formed, and to submit the result to the subordinate lodges. Carried.

THE WILLIAM WELL WINNIPEG, MAN., CANADA

Our Monthly Prize Essays.

CONDITIONS OF COMPETITION.

CONDITIONS OF COMPETITION. 1.—No award will be made unless one essay at least comes up to the standard for publication. 2.—The essays will be judged by the ideas, argu-ments, conciseness and conformity with the subject, and not by the grammar, punctuation or spelling. 3.—Should any of the other essays contain valu-able matter, not fully covered by the one awarded the first prize, or should any present different views of the same topic, and we consider such views meritorious, we will publish such essays in full, or extracts from them as we may deem best, and allow the writer ten cents per inch (one dollar per column) printed matter for as much of such articles as we publish. By this rule each writer who sends us valuable matter will receive remuneration for his labor, whether he be the winner of the first prize or not. 4.—We invite farmers to write us on any agricul-tural topic. We are always pleased to receive

4.—We invite farmers to write us on any agricul-tural topic. We are always pleased to receive practical articles. For such as we consider valu-able we will pay ten cents per inch (one dollar per column) printed matter. Criticisms of Articles, suggestions How to Improve the ADVOCATE. Des-criptions of New Grains, Roots or Vegetables not generally known, Particulars of Experiments Tried, or Improved Methods of Cultivation are each and all welcome. Contributions sent us must not be fur-nished other papers until after they have appeared in our columns. Rejected matter will be returned on receipt of postage. 5.—Replies to circulars and letters of enquiry sent from this office will not be paid for as provided by rule 4.

rule 4. 6.—No anonymous communications or enquiries

will receive attention. 7.- Letters intended for publication should be written on one side of the paper only.

A prize of \$5 will be given for the best essay 'The Profits of Beef Production in Manitoba and the Northwest;" writer to give a detailed statement of the cost of production. Essay to be in this office not later than May 15th.

Ladoga to be Further Tested.

In view of adverse reports regarding the milling qualities of Ladoga wheat, Prof. Wm. Saunders writes that arrangements have been completed with the Dominion milling Co., of Toronto, whereby a test is to be made that is expected to settle definitely the relative value to the miller of Ladoga and Red Fyfe wheat, a carload of the former, grown in the north for that purpose, being secured. Until the results of this trial are made known it would be well not to attach any great weight to the reported Minneapolis test.

Moved by A. Ross, seconded by A. G. Mckenzie, that the provincial alliance, through the district and subordinate lodges, consider the advisability of forming a union with the Patrons of Industry. Carried.

Mr. H. C. Clay, ex-secretary of the Patrons of Industry, then addressed the meeting, and a discussion followed concerning the two organizations.

Votes of thanks were then passed, expressing the appreciation of Mr. Clay's services, and to the FARMER'S ADVOCATE for the use of the rooms. The meeting adjourned, to meet at the call of the president.

Improved Farm Implements.

We are always glad to call the attention of our readers to firms that are engaged in manufacturing agricultural machinery or implements for farm work. Such is the Thoms Implement Works at Watford, in the county of Lambton. The proprietor, originally a farmer himself, has been engaged in building farm implements for over twenty years, therefore he claims that he should know what are practical tools required for farm work. He is the patentee of several valuable improvements in Canada and the United States, and is now making a specialty of building riding and walking ploughs and corn cultivators. A special feature is their two-furrow gang plough, which is now entirely superseding the three furrow gang plough once in use. Another capital implement is their lever corn cultivator, by which the operator can perfectly control the depth, whether used in baked or mellow soil, and should prove just the thing for cultivating among small fruits, as well as roots and corn.

THE FARMER'S ADVOCATE.

Lathyrus Sylvestris.

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In our advertising columns will be found the advertisement of Mr. F. E. Clotten, of London, England, who is Prof. Wagner's sole agent for the sale of seed. As this plant is a comparative stranger in this country, a few words about it may interest our readers. This plant, which belongs to the natural order, Leguminosæ, is a native of Hungary, where it grows in immense quantities in a wild state, but owing to an excess of Tarmic and Gentianic Acid, is totally unfit for feeding to animals. Prof. Wagner, the originator of the improved Lathyrus Sylvestris, noticing the luxuriance with which this at that time poisonous weed flourished, commenced some thirty years ago to cultivate it, in the hope by so doing of eliminating the poisonous matter. This he claims to have succeeded in doing, and he now offers seed of his improved Lathyrus Sylvestris to the public. The advantages claimed for this plant are as follows :-

It grows most luxuriantly, producing, it is claimed, no less than 18 to 20 tons of green fodder to the acre in four cuttings.

Its feeding qualities are very great, it being claimed for it that it is four times as valuable as corn (fodder) in its nutritive qualities.

It requires no further cultivation after the first year, and will last for fifty years.

It possesses to an extraordinary extent the power, conceded to all *leguminose*, of absorbing the free nitrogen of the atmosphere, and then yielding it by its roots to enrich the soil.

That there is a great deal of truth in these assertions is proved by the experiments conducted at Woborn Farm by the Royal Agricultural Society of England, and also by the reports of leading agriculturists throughout the world, and we would like to see a fair test made in Canada of the Lathyrus Sylvestris, for should it prove to be what it is represented, it will undoubtedly be a great boon to the stock-raisers of any country. Owing to the fact that the supply of seed of the improved plant is still very limited, the price is very high, being \$10.00 per lb. Orders sent direct to Mr. Clotten, or in the meantime to the FARMER'S ADVOCATE, will be attended to at once. Remittances for amount must be made with order. Mr. Clotten will be pleased to give any information to parties wishing it.

Warring with the Credit System.

reducing business to a comparatively cash basis they will accomplish a great good for Canada. The Commercial is with them heartily in this respect at least. We have always held that the free credit system is an injury to the farmers as well as to the merchants, and we are glad to see that some of them are getting their eyes opened to this fact. Farmers who buy for cash should not be obliged to pay credit prices, neither should credit customers be allowed to buy at cash prices. If merchants would reduce their business to this system, doing cash business on a cash basis, and credit business on a credit basis, we do not think they would have much to fear from the order of Patrons of Industry."

The Provincial Fat Stock Show.

The question of holding a Provincial Fat Stock Show has been under consideration for some time by the Ontario Agriculture and Arts Association, the Dominion Swine Breeders' Association, the Dominion Sheep Breeders' Association and the Fat Stock Club of Guelph. Representatives of each of these bodies met in Toronto on the 7th of April and decided uponholding a Provincial show in the city of Guelph some time about the middle of December next. The terms agreed to were as follows :--

"That the Agriculture and Arts Association agree to hold a fat stock show in Guelph, in December next, in connection with the Fat Stock Club, the Sheep Breeders' Association and the Swine Breeders' Association; upon this basis the local Fat Stock Club and the city of Guelph to provide all the accommodation necessary to hold a creditable show; the Sheep Breeders' Association to provide \$300 or more towards the prizes, the Swine Breeders' Association \$300 or more, and the Agriculture and Arts Association \$1,000; that three representatives from the Fat Stock Club, five from the Agriculture and Arts Society, and two from each of the Sheep and Swine Breeders' Associations be the Committee of Management, the Agriculture and Arts Association to pay all expenses, with the exception of the Sheep and Swine Breeders' committee expenses, and to collect all receipts. In case all the prizes in the sheep and swine departments are not paid out the proper proportion of such unpaid prizes be paid back to the two different associations.' Besides the space provided for the exhibition of live stock, Mr. John I. Hobson, the representative of the Guelph Fat Stock Club, promised that ample accommodation would be provided for an exhibition of poultry, and Mr. Henry Wade was instructed to communicate with the officials of the Ontario Poultry Association and request that their association co-operate with the above-mentioned associations in offering prizes for poultry. Mr. F. W. Hodson, of the FARMER'S ADOOCATE, was requested to correspond with the seedsmen and dairy supply men and request that they also co-operate and prepare a prize list for seed grain and dairy goods. There has been several very good Provincial fat stock shows held in Ontario, but this promises to be far the best ever held in any part of Canada. The prize list will be issued at an early date when we will publish the greater part of it, which will be a guide to the other provinces. There should be a first-rate winter show held in every province, and we trust that the example set by Ontario will be followed by Manitoba and other places. Some of the leading seedsmen have been approached and have promised their

Year's Test of Massena, 16 Years Old.

MAY, 1892

If, while testing a cow for a year, I take her to the exhibition for the whole month of September and resume test on return, is it not fair to take her *actual* yield of milk and butter for August, the month before she left, and for October, the month after she returned, and take the average of those two months for September, the month she was away ?

I do not think the most prejudiced person in the world could find fault with this mode. I am as much opposed to guess work as anyone, but there is reason in all things, and when a person takes pains to churn a cow's milk separately for a year, but takes her to the fair during test, it is only right that they be allowed to make *some* estimate of what the cow would have done had she not been absent that month, provided always that the month of absence is distinctly labelled "estimated", and then your readers can add it on to the cow's actual churning or leave it off, just as seems best to them.

On this basis I give the test of the most wonderful cow of her age I have ever known. March 1st, 1891, Massena dropped a bull calf, she being then 15 years old, and her test began 7 days afterwards, viz.:—

	Milk.	But	ter.
	lbs.	lbs.	OZ.
March 7th to Sept. 6th (inclusive)			
just 6 months, the cow actual			
ly yielded	5,41316	416	10
Sept. 7 to Oct. 6, (estimated)	. 75116	61	434
Oct. 7 to Nov. 6, inc. (actual)	. 629	54	8
Nov. 7 to Dec. 6, inc. (actual)	. 59016	51	15
Dec. 7 to Jan. 6, inc. (actual)	. 50516	43	116
Jan. 7 to Feb. 6, inc. (actual)	. 333	21	11/2
Feb. 7 to 15, 9 days (actual)	. 671/2	5	5~~

Total for 11 months and 9 days.8,2901/2 654 034 From Feb. 15th her milk was thrown out till the morning of the 28th Feb., when she dropped a nice heifer calf, sired by her own son, Massena's Son, that had such a glorious success at our exhibitions last fall, winning first over all Canada, Toronto, 1891; sweepstakes, Toronto, 1891; headed first prize herd, Toronto, 1891; second prize at Ottawa, 1891; headed first prize herd, Ottawa, 1891; headed special gold medal herd, Ottawa, 1891; first at Montreal, 1891; sweepstakes, Montreal, 1891; headed first prize herd, Montreal, 1891. His grandson, Massena's Combination, took first as bull calf at Toronto, 1891; second as bull calf at Montreal, 1891; first as bull calf at Ottawa, 1891. His g. daughter, Massena's Maggie, took third prize as three-year-old. Montreal, 1891; second prize as three-year-old, Ottawa, 1891. First prize everywhere, as well as sweepstakes at Montreal, being taken by my three-year-old g. daughter of Stoke Pogis 5th, Jetsam's May-144 lbs. a week at two years.

There are, undoubtedly, times in the history of some farmers, especially in a new country such as Manitoba, where a mortgage incurred for the purchase of land proves a very great stimulus to effort and enables them to secure a standing not otherwise possible in so short a time. However, the credit system as it exists generally is most unfortunate and wasteful, and should, as far as possible, be discredited and got rid of. The condition of the farmer, whether prosperous or otherwise, very speedily makes itself felt upon the whole business life of the country. It is not to be wondered at, then, that a journal enjoying the standing in mercantile circles of The Commercial, of Winnipeg, should devote a good deal of space to the question of the farmer's business relations. Referring to the views of our cor-respondent, "Invicta," in favor of making a sharp distinction between cash and credit business in favor of the former customer, the Commercial computes that as much as every ten per cent, should be added by the merchant to the cash price, to cover interest and cost of bookkeeping, and a further addition to cover losses from bad accounts. In conclusion The Commercial adds:

¹⁰ The writer in the *Farmer's Advocate* referred to speaks of the organization known as Patrons of Industry as a means of placing business upon a cash basis. The writer, judging from his remarks, is evidently not a Patron himself, but he commends the efforts of this order in the direction of encouraging cash business. So far as the Patrons are concerned, all we have to say is, that if they are geing in for cash business, and if it is their aim to educate the farmers to do business on a cash basis, then we welcome them. They may chants at certain points, but if they succeed in To return to Massena's test, it was made

DURING HER SIXTEENTH YEAR.

She had dropped two mature calves within the year. She had travelled over 1,100 miles by rail within the year and stood three weeks on fair grounds. She had been in *no way* forced, as being far too valuable, and for nearly two months before calving she had no grain whatever.

During the 19 weeks previous to calving she averaged over 94 lbs. butter a week for the whole period. Until the last 7 weeks, when she was only eating thin bran, it took but $11\frac{1}{2}$ lbs. of her milk to make 1 lb. of butter.

What cow of her age can beat the record? If she is alive and well, I think she could surprise the world yet at Chicago, and she has never been one hour sick in her life. It is almost needless to add that Massena was in my prize herd everywhere we exhibited.

MRS. E. M. JONES, Brockville, Ont., Can., Mch. 2, 1892.

FARMER'S THË ADVOCATE.

International.

The accompanying illustration of the imported stallion International represents a grand specimen of the modern Clydesdale. It is the importation of horses of this class that has made the Clydesdale horse the favorite draft horse of Canada. While the importers of other breeds have too often been content to bring horses that would give them a profit, Clydesdale importers have determined to bring the best. International is by that popular sire Flashwood, that has won innumerable prizes throughout Scotland ; and the fact that he was chosen to travel four succeeding seasons is sufficient evidence of his popularity as a breeding horse. International himself is a horse of great quality. His feet and legs are just the type that delights the eye of a Scotchman.

and sheep feeders have been "in it" with a vengeance. Some 89-lb. grass Texas sheep sold at \$5.90. At the middle of April the best prices, compared with the corresponding times last year, were as follows :- Native steers, 1600 lbs., \$4.65; Texas steers, 1252 lbs., \$3.70; native cows, 1200 lbs., \$3.25; feeders, 1200 lbs., \$3.75; western sheep, 145 lbs., \$5 90, 126 lbs., \$6.10; and lambs, 67 lbs., \$6.65. Top prices at Chicago a year ago : Native steers, 1462 lbs., \$6.25; Texas steers, 931 lbs., \$4.60; native cows, 1046 lbs., \$4.30; feeders, 816 @ 1124 lbs., \$4.50@\$4.70; western sheep, 90 lbs., \$5.95; lambs, 99 lbs., \$6.80.

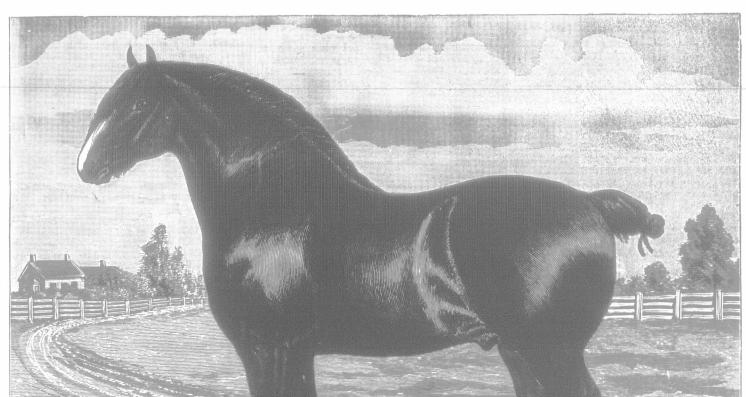
With corn selling 25 @ 27 cents per bushel less than a year ago, the farmers who refused to

Colts with Weak Joints.

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BY THOMAS J. FAIR, FRANKFORD, ONT.

As foaling time will soon be here, I will give to the readers of the ADVOCATE a simple cure for weak joints, which, if put into practice intelligently, will be the means of saving many otherwise promising colts from being destroyed or remaining unsightly cripples all their lives. The remedy is a pair of boots made as follows :- For each boot you want a piece of sheet-iron 6x10 inches, which may be cut from old stove pipes or old milk-cans, one piece of leather 7x101 inches, and one 8x101 which may be taken from old bootbacks. Turn the iron up one inch at bottom end of boot and press it down ; this makes a smooth edge that will not cut the leather; put narrow





THE IMPORTED CLYDESDALE STALLION INTERNATIONAL, THE PROPERTY OF MR. JOSEPH O. HALL, DRUMQUIN, ONT.

to be numbered among the best horses of the day in Canada. He was imported the fall of 1890 by Messrs. Graham, Claremont, and has recently been purchased by Mr. Joseph O. Hall, of Primrose Farm, Drumquin, Ont.

Chatty Letter from the States.

Fat cattle have lately been losing feeders so much money that the latter have not been putting enough corn into them to make good quality. Fat cattle are \$2 per 100 lbs. lower than a year ago ; best 300-lb. hogs at \$4.80 are 50 cents lower than a year ago, and sheep are about the same. The cattle market has lately been so low that every cut in prices was severely felt by farmers and feeders. Good 1350 @ 1500lb. export steers at \$3.80 @ \$4.10 is "drawing blood." The cattle market has been very low all year. Hogs have been fetching good money, of fine horses.

alternative of taking the low price or feeding it to low priced cattle, feel that they are being whipsawed very badly.

Country roads have been extremely bad of late, and feed lots in many sections have been belly deep in mud.

The cattle and horse thieves in Wyoming and Montana are running things with a high hand. They seem to have the sympathy and aid of the small settlers, who are opposed to the big range companies, and the latter are having an exceedingly unpleasant time of it.

The American Fat Stock Show will be held no more in the old exposition building on the lake front. The Union Stock Yard and Transit Company is beginning the erection of a fine large pavilion at the stock yards, which will hereafter be used for that purpose. It will be used also as a pavilion for the display and sale

He is also very handsome above, and is certainly | feed it during the winter, and now have the | piece of leather inside this and turn it up over bottom of iron, and it will project one-half inch at top and sides; this prevents iron coming in contact with the leg; place the other, after punching holes along the edge one inch apart and one inch from edge of leather, on outside, with lower end slipped under iron where turned back; then put a copper rivet in each lower corner through both leathers and the iron, and the boot is done. Draw the boot around the leg below the knee with lower edge nearly to the hoof and lace it up middling tight, though not so as to prevent circulation. If the boot is too large you can make it smaller by trimming the edges of the leather. I put a pair on a foal unable to stand, and it got up at once and nursed, and in three days could follow its dam, and an uncle saved one which he sold afterwards for \$170,

THE FARMER'S ADVOCATE.

Among English Breeders.

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While on a visit to England the past winter, a member of our staff spent a few weeks among the leading breeders looking over their herds and flocks, and we now give a few short notes on some of the principal farms visited, commencing with some of

ENGLAND'S SHROPSHIRE BREEDERS.

The first Shropshire flock we visited was that of Mr. Herbert Parker, The Park Farm, Alcester, Warwickshire, who has been for some years past quietly building up a flock on a foundation stock of ewes, selected from the very best flocks in England, purchases having been made, regardless of cost, from such breeders as Bradburne Bros., J. Pulley, etc. At the time of our visit the flock consisted of 100 breeding ewes, a number of them sired by the Bradburne ram, The Mitre (4863), he by Buffalo Bill (3396), dam by The Rector (1769). Most of these had been mated with the rams Senior Wrangler (4814) and Royal Astwood (5494). The first of these, a very large, heavy sheep, with a very heavy fleece, is a son of Chorister (3747), and his value as a breeding ram is shown by the fact that he sired the 1st prize pen of ram lambs at the Bath and West of England Show, afterwards sold at \$100 each ; the second, Royal Astwood, is from the flock of that well-known breeder Mrs. Barrs, his sire being Duke of Norfolk (3033) and his dam a ewe by The Dean (2356); although not by any means large, this is a very thick useful sheep, with a great deal of quality. Besides these two Mr. Parker has bred a limited number of ewes to the Bradburne rams, Pride of War-wick and Make Way (5341), by Precentor (4733), for whose service, he tells us, he paid a fee of \$5 a ewe.

One thing that struck us forcibly was that at "The Park Farm," while all the stock was in good condition, nothing was pampered, the ewes all being in store condition, while the lambs, which were coming strong and healthy and in no small numbers, were lying out with their dams every night.

Mr. Parker is a life member of the English Shropshire Record Association, and while he is interested in Shire horses, Yorkshire hogs and fancy poultry as well as Shropshires, it is to the hat h his special attention. He has made a number of sales in the last few years to Canada and the States, and we can confidently recommend any of our readers who are visiting England in search of Shrops to pay a visit to The Park Farm," Alcester. We cannot close this notice, however, without mentioning that we noticed here among the horses a very useful mare, by Right Sort (2483), the sire of Mr. G. Brown's well-known stallion, Holland Major, and also a nice yearling filly by Coton, he by Harold. In the piggeries were a bunch of Yorkshires, bred direct from S. Spencer's stock, among them a couple of young boars that promised to make a grand pair of pigs, while the poultry yard was stocked with pure-bred Lingshans (Croad's strain) and Minorcas.

in this pen attracted our attention also; he was bred by Mr. J. Beach, and has sired some of Messrs. Bradburne's best lambs this year, while another extra good sheep was a two-shear ram bred by Messrs. Bradburne themselves. This ram, his owners claim is the best sheep they ever bred ; he is a half brother to their Royal winner last year at Doncaster, and a full brother to one of their ewes that won at the same show. One point that we would like to draw our readers' attention to is that both this ram and the next shown us, the well-known One Above All, were hired out last season for more money than most Canadian breeders are willing to pay for the purchase of a ram. Besides these two-shear rams we were shown a pen of eight shearling rams, and one of fifteen shearling ewes, all being prepared for the Royal Show at Warwick, and a grander lot it would be hard to find-all beautifully woolled about the head and legs, and, standing squarely on the shortest of legs, with thick, even carcasses.

As at the Park farm we again found the ewes and lambs lying out in the pastures, and a grand lot they were, numbers of the ewes having been prize-winners at the Royal and other shows, in past years, and most of the lambs being sired by the rams we have mentioned. Among the ewes we noticed a grand lot of eighty shearlings, which we were told would be for sale this season. We are but doing them justice in saying that for size, quality, breeding, they equal anything we saw in England, and we strongly recommend them to the notice of intending buyers. Besides their Shropshires, Messrs. Bradburne carry a small stock of Shorthorns, as well as Shire horses and hunters.

We would, before leaving Astwood Hills, draw our readers' attention to the magnificent average made last year by sheep sold from this flock by Messrs. Lyttell, Mannsell & Walters, 93 sheep and lambs realizing no less than \$6.650 or an average of over \$70 each.

MR. G. THOMPSON'S SHROPSHIRES AND

SHORTHORNS. After leaving Astwood Hill a couple of hours on the train tooks us from Alcester to Hatton and then a short drive brought us to the farm of Mr. G. Thompson, at Wroxall. Mr. Thompson has for a number of years been an enthusiast on fine stock, and the result of good judgment, combined with the determination to buy only the best, is easily seen in the quality of his stock. As Mr. Thompson was absent from home at the time of our visit, we were unable in going the herd of She horns, numbering some forty head, to get as much information as we would have wished. It did not need an expert, however, to see that the cattle were not only well-bred but well-fed. Among them we especially noticed the roan twoyear-old heifer Fairy Duchess. This is a grand type of a milking Shorthorn, smooth all over, with a grand back and rib, and a beautiful head As a yearling she won 2nd at the Bingle Hall Show in Birmingham, and as a two year old she has been shown only three times, winning one 1st, one 2nd, and a Reserve No. Among the younger animals we very much fancied a bull calf eight months old, by Grand Duke Winsome, out of a cow bought at Lord Moncton's sale for \$1,200. This calf, a rich roan in color, struck us as being very promising. Short-legged, and with an excellent top, he shows a wonderful lot of quality. But if the Shorthorns were good of their kind, the Shropshires were even better. When Mr. Thompson first founded his flock he made purchases of ewes from such flocks as those of Messrs. Evans, of Uffington; Farmer, of Ludlow; Felton. of Ludlow; and Barrs, of Nailstone. On these ewes he has been using rams of the very best strains, the result being that last year at the Royal Show at Doncaster this flock won the following prizes: H. C. on two-shear ram, H. C. on shearling ram, and 2nd on ram lambs. When we add that this was Mr. Thompson's first exhibit at the Royal, and that these classes were the only ones in which he competed, our readers can see for themselves the credit such a record deserves. The rams last used at Wroxall have been Lord Rowington (55331), winner of Reserve Number at the Royal, 1890, and H. C. at Royal, 1891, and a ram from for the Royal Show. Another very useful ram | the flock of Mr. J. E. Farmer, Ludlow, Squire of

Wroxall (5557). We have very little doubt but that Mr. Thompson's Shrops will be heard of again this year at the leading shows. His shearling ewes especially struck us as a wonderfully good lot, and we can confidently recommend any of our Canadian importers who intend visiting England to give Mr. Thompson a call before they purchase. We also understand Mr. Thompson intends having an auction sale of pure-bred stock on August 2nd, which will be well worth attending.

WOLF'S HEAD FARM.

Leaving Warwickshire, a few hours run by train brought us from Hatton to Baschurch, a small station a few miles from Shrewsbury, and here we found a tray waiting to take us to Wolf's Head Farm, near Nesscliff. Here we found an old friend in the person of Mr. Jno. Thonger, so well and favorably known to many American and Canadian Shropshire fanciers. Mr. Thonger's flock was founded twenty-two years ago by the purchase of almost the entire flock of the late R. Pembry, who for over forty years was in the front rank of English breeders. Since its foundation the flock has been bred with the greatest care, none but the best of blood being introduced. The flock now numbers over two hundred head of ewes, combining the blood of such flocks as those of Messrs. J. Bowen Jones, Rd. Thomas, Rd. Brown, Crane & Tanner, etc. Among these ewes were a choice lot of shearlings, as well as some very nice shearling rams, sired by The Fleece, bred by T. S. Minton; Stalloe's Choice, bred by J. Bowen Jones, and Wirral. This last named ram, winner of 1st at Birkenhead and H. C. at the Bath and West of Eugland, was hired for a long price from Mr. R. Brown, of Ruyton. This sheep was used again last season, as well as a ram from Mr. Bowen Jones' flock, and two home-bred rams. Until lately Mr. Thonger never showed his sheep, being of the opinion that the fitting necessary for the show yard did them no good ; but last year he made a few exhibits and was very successful, winning two firsts at the West Midland show with three pens of sheep, as well as several prizes at local shows. Mr. Thonger makes it a rule never to pamper his stock in any way; and, indeed, at the time of our visit, although the weather was bitterly cold, we found all the young lambs lying out with the ewes, and a grand lot of lambs they were-strong and healthy.

Mr. Thonger has paid several visits to both the United States and Canada, and numbers among 18 customers such well Breek, Paw Paw, Mich.; Blake Bros., Gales-burg. Mich.; Fields Bros., Cedar Rapids, Ia., and Wm. Medcraft, Sparta, Ontario. He is always open to assist buyers in making selections, and we need hardly say that being situated right in the heart of the Shropshire country, and having an intimate acquaintance with all the leading breeders, Mr. Thonger's assistance should be very valuable to foreign buyers.

ASTWOOD HILL SHROPSHIRES.

After leaving The Park we drove across to Astwood Hills and paid a visit to the well-known flock owned by Messrs. T. & S. Bradburne, which has sent so many of its representatives to conquer again and again at the Royal, the Bath and West of England, and other leading shows. As our time was limited we were only able to take a hurried look through the flock, but even that was enough to show us that its owners are fully deserving of the position they have won for themselves among English breeders. Among the stock rams the first we noticed was the ram Lord Kingston, a grand, thick, even sheep, short-legged, and showing a wonderful deep, well-sprung rib, with a well woolled head. This ram was purchased last year from the flock of Chas. Coxon, Esq., at whose sale he brought the highest price of the day. He is now being fitted

THE BEAM HOUSE FARM,

the property of Mr. Wm. Thomas, a name well known in Shropshire circles, is situated a few miles from Mr. Thonger's, who kindly drove us over there. Mr. Thomas founded his present flock on ewes bought from his father, Mr. Richd. Thomas, who is well known as the oldest member, but one, of the Shropshire Record Association. Since it was started this flock has achieved an extraordinary amount of success in the show ring, winning a great number of prizes at the Royal, the Bath and West of England, the West Midland and other leading shows. The flock now numbers over 350 ewes, of which 140 are shearlings, most of them being sired by such rams as Blue Blood (1360), Honest Richard (4016), Park Hero (4707), Royal Clive (5495) and Leicester Hero (5293). This latter sold when a two-shear for the handsome figure of 110 guineas. The breeding ewes, over 200 in number, combine the blood of Patriot (1198), Grandeur (133), Prince Victor (158) and Prince Royal (971), all well known as Royal winners. At the time of our visit nearly half the ewes had lambed, and Mr. Thomas reported that so far 97 ewes had brought him 181 lambs. When we add that among the sires used last season were the well-known Royal winner, Lord Ashby (3581), and the champion ram at the West

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Midland show, Mr. Geo. Lewis's Timewatch (5624), it is almost needless to say that the youngsters were all that one could wish. Still, blue as is the blood that runs in the veins of these baby Shopshires, and destined as many of them are to win still more fame for the Beam House flock, we found that, as on the other farms, all the lambs had to be outday and night with their dams, in spite of the fact that a cold raw wind with frequent flurries of snow was blowing. Mr. Thomas's card will be found in our advertising columns, and we need hardly say that a visit to Beam House is essential to all lovers of Shrops who may visit England.

FIRST PRIZE ESSAY.

The Eradication of Noxious Weeds.

BY D. F. WILSON, BRANDON.

The weeds which the farmers of Manitoba and the Territories have to contend with may be divided into two classes-annuals and perennials; and though to a certain extent they require the same treatment it may be said they need to be treated in directly opposite ways. While neither should ever be allowed to go to seed, annuals should, under certain conditions. be encouraged to grow, while perennials should, it possible, never be allowed to show themselves above the surface. The principal indigenous weeds are pig weed, wild buckwheat and couch grass. There are others, but these are the ones that give the most trouble. The first two are annuals, the latter one a perennial. In some parts of the country imported weeds are thriving, notably Canada thistle and wild mustard, which all who came from Ontario know as old enemies. Though annuals and perennials require different treatment, all weeds of either class can be destroyed in the way which is suitable for destroying others of the same class. Some may be more stubborn and harder to eradicate than others, but they must succumb to the same treatment if it is thorough. When wheat is grown to such an extent as in Manitoba, summerfallowing must be the means taken to clean land, whether the weeds be annual or perennial, although the system of fallowing will require to be different. In the case of annuals, if the land has been worked in the ordinary way for a number of years, the owner may make up his mind that such a field cannot be cleaned in one year. The soil has by continued ploughing under of the seeds of weeds got these seeds mixed through it to the full depth that it has been ploughed, and these seeds remain dormant until brought near enough to the surface to grow; and as the depth at which seeds germinate is in proportion to their size, some of them have to be brought very near the surface in order to do so. This is one of the reasons that pig weed is so formidable. In destroying these weeds the object to be kept in view is, first to cause them to grow and then kill the plant before it can produce seed. In order to do this it may be necessary in some cases to harrow in the spring, in order to cause the seeds that were dropped the previous season and lie on the surface to grow, but in most cases the melting of the snow will cover them sufficiently to do The fallow may be ploughed directly after seeding and well harrowed at once, repeating the harrowing at intervals so as to kill the young weeds as they grow, or it may be let lie for a time and then be gone over with some surface working implement which will destroy everything that has grown. Such an implement is, how ever, not found on every farm. Harrows of the disc type will not do it. When all danger of on the summerfallow. weeds seeding out before frost kills them is past,

cultivation should cease. Land summerfallowed in this way will be free from weeds the following year if care is taken not to work too deep when seeding in the spring. The following year put in the crop with the drill or disc harrow without ploughing, again being careful not to go too deep. Good land, well fallowed, will grow a good crop put in in this way, and it will be free from weeds, while if it is ploughed weed seeds will be turned up near the surface which will grow in the crop, ripen, seed before harvest, and so reseed the field with weeds. By simply working the surface the dormant seeds are left so, and two clean crops are taken off the land for one fallowing. The next year the field should be again summerfallowed, when another layer of seeds are brought to the surface and destroyed.

By ploughing a summerfallow again after it has been harrowed and let lie for a time, a great many more seeds may be destroyed in a season, but the second ploughing must be done early in the season. I have heard farmers say they have had much dirtier wheat on fallows that they had ploughed twice, than where they had ploughed but once. In these cases the ploughing was done just before harvest, so that by the time the soil had settled well the weather had become cold, and seeds, therefore, did not germinate freely, so were just right for growing the following spring. All things considered one kept clean and thoroughly packed will be sufficient, and by taking two crops from each fallow ing will be, though slow, the most profitable way of cleaning land of our most common weeds. One ploughing also has an advantage over two in that the soil has longer to settle before winter (an important point in land containing humus), as it lessens the danger of weeds in the next year's crop.

With perennial weeds the time to begin oper ations is when they are in blossom by turning them under, the plough cutting under the roots, but only just below so as to bring them on the surface as much as possible. Harrowing should not be done for a few days, during which, if the weather be dry and hot, good work will be ac-complished. Plants in blossom have exhausted themselves to a very great extent in reaching that stage of their growth, so that by turning under weeds at that time the vitality of their roots being much reduced; should they grow again their growth will be much less vigorous. By not harrowing at once many roots are exposed to the sun, and the soil being loose and broken but a enewing growth. Harrowing a little later will bring up many more roots, which, being exposed to air and sun, will be killed. The subsequent cultivation of the fallow will depend on the variety of weeds, the season and the soil. In some cases one or more ploughing will be necessary, but one thing must be observed, and that is that no weed show itself above the surface the season. Do not wait for them to show themselves, but check them while still out of sight. A plant breathes through its leaves, and the principle of destroying a perennial weed is never to let it breath after once it has been turned under-in fact, to drown it. In wet seasons this will sometimes be difficult to do, especially with couch grass, but to be successful it must be done, and if thoroughly done will clean land in a single season. Where a field is infested with both classes of weeds the only course to pursue is to first heat it for the destruction of perennials, and then follow up with the rotation for eradicating the annuals, which is by no means costly, for it is doubtful if there is a more profitable way of making land in this country even where weeds are not troublesome. In Ontario I have known land perfectly cleaned of thistles by one or two late sown crops on spring ploughing, and were this practised in this country it would destroy both classes of weeds to a very great extent. Barley is the only crop that could be made use of in such a case, but even it is attended with too much risk in this climate to make a practise of sowing it late. Where mixed farming is practised hoe crops can be made take a large part in keeping the farm clean, but as farming is carried on at present dependence must be placed almost altogether

The Raising of Dairy Calves. BY W. J. PALMER,

In all branches of dairy farming the farmer must necessarily depend to a large extent on his cows to enable him to carry on his business successfully. In some cases, especially when milk is supplied to cities, the dairyman finds it more profitable to purchase milk cows as he needs them, fattening or selling off those that show a tendency to become dry. But in the majority of cases it is found to be more profitable and satisfactory for each dairyman to raise his own calves, as by so doing he can breed his best cows to a first-class dairy bull and thus get calves which, under proper care and treatment, will develop into superior dairy cows. By continuing this course of action he will greatly improve his herd and increase their producing power.

Some people tell us that it is impossible to raise good dairy calves profitably, as they require abundance of new milk to keep them thriving, and this new milk is a very expensive food. Fresh milk certainly is the best food for the young calf, and the natural method of taking it is for the calf to draw it from the udder of the dam, but there are many considerations among dairymen that come in to prevent this method of feeding. This is only practicable among the breeders of pure-bred and high-priced stock which are grown primarily for beef. Dairy products have become too valuable to permit calves intended for the dairy or for beef to be raised upon whole milk ; they must and can be grown just as well upon the refuse of the dairy, skimmilk and whey, if other and cheaper foods are us d in conjunction.

In order to understand the real feeding value of skim-milk and whey, it is necessary first to study the composition of new milk, and then see what constituents are removed in the processes of butter and cheese-making. The composition of new milk is generally constant with the exception of its fat, which is the variable constituent. Its average composition is : water, 87.5 per cent.; fat, 3.60 per cent.; albuminoids (casein and albumin), 4.00 per cent.; sugar, 4.20 per cent.; ash, .7 per cent. In buttermaking the sole object is to remove as much of this fat as possible, hence skim-milk has practicably the same composition as the new milk, with the exception of the fat, which is removed in the cream and goes to make butter ; a small proportion of the cascin is also removed with the fat. Skim-milk from deep or shallow pans has about the following composition :--Water, 90 per cent.; fat .7 per cent.; albuminoids, 3.50 per cent.; sugar, 5 per cent ; ash, .8 per cent. Hence, we see that it is almost a perfect food, containing all the essentials necessary to build up and sustain the body, with the exception of fat. This can be supplied in oil meal or some of the grains, such as oats, pea meal or bran. One hundred pounds of skim-milk contains about 31/2 lbs. albuminoids, or material for forming muscle and flesh; 5 lbs. sugar, which goes to keep up the heat of the body and perhaps to form fat; about four fifths of a pound of ash which builds up the bones, and over $\frac{1}{2}$ lb. of fat. Hence, if calves are fed skim-milk (warm) in small quantities at a time, with a little oil meal or grain in addition, they will thrive and grow rapidly. has been valued at from 20c. to 25c. per 100 lbs. (10 gals.) for feeding purposes, but this is a low estimate. Practical men give it a higher value

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In cheese making, on the other hand, the object is to get as much of the albuminoid and casein out of the milk as possible and with it a large proportion of the fat; hence, whey is not so valuable for feeding purposes as skim-milk. It, however, contains valuable ingredients, and if fed carefully, sweet and warm, with the constituents in which it lacks, supplied in other foods, it gives good results. One hundred pounds of whey will contain about 93 lbs. water, 1 lb. albuminoids or muscle formers, $\frac{1}{2}$ lb. fat, $4\frac{1}{2}$ lbs. sugar and 3-5ths of a lb. of ash. We thus see that it is chiefly valuable on account of the sugar it contains, so that in feeding it to growing animals we should add a liberal supply of a buminoids and fat. These can be given in flax seed, oil meal, shorts or pea meal. Sweet whey is generally estimated at about 15c. per 100 lbs. for feeding purposes; but it must be sweet, for directly it turns acid a portion of the sugar, its most valuable constituent, has become converted into lactic acid and thus loses its feeding value.

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In feeding a heifer calf for dairy purposes much less forcing food is required or even desirable than when feeding for beef. Rich milk or fatty pods are not required, but food which will build up a good frame of bones covered with solid muscular tissue. If a calf intended for the dairy is so well fed on fat-producing foods when young that it gets into the "habit" of putting fat on its ribs, this habit will very likely follow it through life, with the result that the milk pail suffers. If a heiter becomes fat on liberal feeding, instead of enlarging her growth and retaining her milk form, she should be discarded from the herd, as she will rarely prove a profitable milch cow

When feeding skim-milk and whey to calves much trouble and loss has been occasioned by not giving proper attention to the small matters of detail. It is these small matters that determine the difference between profit and loss every time. It cannot be expected that the calves will thrive when fed these foods cold or sour; they must be fed warm and in small quantities at a meal. Overfeeding, especially when the calf is young, is to be avoided, for if sucking the cow it will only get a small meal at a time, and its digestive organs are not yet developed sufficiently to dispose of several quarts at once. Feeding much milk and other concentrated foods does not give that large development of stomach which will be necessary in after-life, when the cow will need to consume and assimilate large quantities of bulky and coarse foods. Hence the calf should have access to good clover hay at all times; it will thus soon develop its first stomach and commence to chew the cud. Several of the successful breeders of thoroughbred stock in Ontario are feeding skim-milk to their calves with good results. A prominent breeder near Ailsa Craig, feeds his calves as follows :- For two weeks they get a full allowance of new milk; then skim-milk and flax seed tea is gradually introduced, until at four weeks they get all skim milk; at this age two calves get about half a pint of flax seed between them ; this is increased until two calves get one pint between them. They are also allowed all the meal they will eat and early cut clover hay cured in cocks. The calves have grown remarkably well under this treatment. Smith Bros., near Churchville, the large breeders of Holstein cattle, allow the calves to suck for three days, three times a day; they are then weaned and five to six pounds warm new milk given three times per day for the first menth; this is then reduced to seven pounds new milk fed twice a day until the calves are three months old, when skim-milk is fed, eight to nitte jounds twice a day; this is continued as long as possible. Meal (mixed cats and oil cake) as 1 good hay are placed within reach at all times. The calves are kept in lots of six or in pens, tied up before giving them their wilk and kept tied for a half hour after feeding to perfort them sucking one another. This is an ortant point, as many calves are ruined by toda (this habit of sucking after drinking

milk to one of gruel. This gruel can be made by boiling one pint flax seed and one pint oil meal in ten or twelve quarts water, or flax seed alone in about six times its bulk of water. If flax seed is difficult to procure, about two tablespoonfuls of oil meal per day, dissolved in hot water, can be added to the skim-milk. This oil meal can be increased up 1 to lb. per day. This will be sufficient until the calf is about two months old. Oats, bran or middlings can gradually be fed as the calf grows and improves. If diarrhoa occurs one quart of new warm milk will stop it if no other food is given.

If whey is the only part of the milk that can be reserved for the calves, then it must be supplemented by foods rich in muscle formers and fat. Oil meal is probably the best food for this purpose, as it contains 28 per cent. albuminoids, 10 per cent. oil and nearly 8 per cent. ash, the very constituents which are lacking in whey. Pea meal and shorts are also rich in these materials. If about 1 lb. of oil meal or cake, dissolved in hot whey, be added to each gallon of whey it will be found a good food for the calf ten days to two weeks old ; after that add an equal amount of bran, ground oats or barley to each gallon and increase the amount fed. After the calf is about two months old about $\frac{1}{2}$ lb. wheat middlings may be used in the mixture

As in all feeding operations, calf feeding requires the greatest care and attention. To keep the feed boxes perfectly clean and sweet, and to handle the animals kindly and gently, are very important points. The calves should have plenty of exercise. Those calved in the spring should be kept in during the hot days of summer so as to avoid the flies, and allowed a pasture run at night until the cool autumn weather comes on.

In a well regulated dairy, when it is desired to keep up the herd of cows, about one-fifth their number of calves should be raised each year. These should be the pick of the lot and bred so as to "come in" at about two years old. The calves from the poorer cows can be sold for yeal or

ls the Shorthorn the General **Purpose Cow?**

BY JAS. TOLTON, WALKERTON, ONT.

In which breed, or in the crosses of what breeds, can the general cow be found ? is a question that has been many times asked, but so far as I know has not been definitely answered. Neither do I suppose will it be settled for all time by this paper. The cow that is bred for special purposes, such as for beef, either by stall feeding or grazing, or for dairy purposes, has and always will have its admirers; but after all, what the general or average farmer wants is a cow that has, to as large extent as possible. all these qualities combined. Before endeavoring to answer the question, it might be proper to try to define briefly what would constitute the general purpose cow. Would it not, to as large a degree as possible, be the cow that when judiciously mated, the produce, if a cow calf, in type should be equal or superior to the dam, or if a steer calf, be fit for the market in the shortest possible time, making the highest returns for the feed consumed ? Would it not also be the cow which for the feed consumed produced the greatest number of pounds of butter or cheese of the finest quality, and when she has answered her time for breeding and for dairying purposes, can be turned into beef of the highest quality at the least cost? If the line of argument so far is sound, we readily perceive that it would be of no avail to look for this cow in those breeds which are specially bred for beef purposes, neither will it be of use to look for her in those breeds which are bred exclusively for dairy purposes. Now, I presume

monstrate that the Shorthorn cow will nearly always produce her own type. If bred with the main object being for beefing purposes, she takes a prominent and conspicuous stand among the beef cattle fed in this country, and I think the same might be said of every other country where improved breeds of cattle are kept. As an instance, at the late Fat Stock Show held at Guelph, all the animals exhibited, with the exception of one or two, were Shorthorns or grade Shorthorns. Again, in early maturity she takes a prominent place among other breeds. A friend of mine last winter fattened a number of yearlings that were two-year-old steers when shipped in June last, and weighed from 1,400 to 1,435 lbs., and heifers of the same age that averaged 1,375 lbs., and there are many instances of them making from 1,100 to 1,200 lbs. at that age ; and again, are there any finer specimens of cows, heifers and calves found in any of the breeds than we see among the Shorthorns exhibited at our agricultural exhibitions? Now, what is the record of the Shorthorn cow as a dairy cow ? I am free to confess it may be difficult to prove that she comes up to the qualifications laid down in this paper, and if so, I think there are at least two causes why she does not. First, I think it may be safely asserted that Shorthorn breeders generally have paid more attention to their feeding and beefing qualities than to a good performance at the milk pail. With this I do not propose to find fault; it is not the intention of this paper to find fault, for the breeders may have good cause for the particular line of breeding which they have followed. Second, if there have been competitive tests in this country not only with other breeds of cattle, but individual records showing what can be done with a Shorthorn for a stated period-as I say, if there have been such competitive records, they have not come under my observation. I give the following, clipped from an agricultural paper, as the results of the British Dairy Show of 1890. At this show there were 437 cattle entered for the competition, and the tests were as follows :---Shorthorns, 121.1; Dutch, 115.5; Ayrshire, 93.8; Guernsey, 98.1; Jersey, 90.8; Red Poll, 69.1; Dexter Kelly, 68.1. The second prizewinning Shorthorn scored 117.9 points, but had the greatest milk yield of any in one day, being 61.3, but being under 3 per cent. in fat. So you see in Britain where some of the breeders breed for milking purposes the Shorthorn cow can show a good record. At a Farmers' Institute meeting which I attended lately, one gentleman stated that the best dairy cow was a cross between Shorthorns and Ayrshires. To get the best you will notice it required a cross with a Shorthorn. Now, is it not a fact that public opinion is a fairly safe guide in domestic matters as well as other questions? It is true that it may and does sometimes err. Well, how is public opinion on this general purpose cow question ? Although we have in Ontario nearly all the breeding breeds of improved cattle, and have had them for many years, what do we find ? Why, about nine-tenths of the cows kept by the general farmer are Shorthorns and their crosses. Now, you have noticed that the title of this paper was the query, "Is the Shorthorn Cow the General Purpose Cow ?" I have endeavored to present some facts and figures with the view of answering the question in the affirmative, but will leave it with you to say whether I have

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solution in feeding dairy calves is to give where the first week; then skim-milk three times a day, fed blood warm, mixed with Her seel guel, in proportions of three parts of it will require but little or no argument to de- done so or not.

FARMER'S ADVOCATE. THE

Rules Governing the Canadian Swine Records.

The Directors of the Dominion Swine Breeders convened March 10th in the office of the Agri-culture and Arts Association, Toronto. The following rules were accepted and will govern the entries received for registry in the various divisions of the Canadian Swine Record :-

BERKSHIRES.

1. Animals to be eligible for entry must have been bred by reputable breeders in Great Britain, or satisfactory evidence given that they are directly descended from such animals with every cross recorded.

2. All animals imported after April 1st, 1892, must be registered in the British Berkshire Record, or the dam and sire must be recorded therein.

3. An animal recorded in the American Berkshire Record shall be eligible to record in the Canadian Berkshire Record.

 Boars and sows may be entered at any age.
 The date of birth of each animal must be given correctly, and the name and address of the breeder and owner.

6. When forwarding the pedigree of an animal to be recorded, give the number of pigs in the litter to which it belongs.

7. The owner of a sow at the time she was served will be considered the breeder of the pigs.

8. No pedigree will be received unless written on the printed forms furnished by the Recording Secretary, and must be certified to by the breeder and owner or agent or representative of each.

9. All applications for the registry of pigs sired by boars not the property of the breeder must be accompanied by a certificate giving the date of service, name and number of boar, signed by the owner of the boar, whose full address must be given.

10. All registered animals when sold must be transferred on the books of the Association before their progeny is eligible to register. If a female is pregnant when sold the seller must give the name and number of the boar by which she was served.

11. Transfers sent in during the year shall be published in the first succeeding volume of the

12. Entries must be accompanied by the necesmonth. Much credit will be cheerfully conceded to sary fees, as follows :-- Members of the Dominion The next thing which impressed me was the Swine Breeders' Association will be charged for number of tradesmen, clerks, and office men Mr. J. C. Snell, of Edmonton, to whom was enregistration and certificate fifty cents each, trans-fers twenty-five cents; non-members, double fees. who enquired for situations in Manitoba. Had trusted the management of the sale, which was complete in every particular, and much credit I been able to place them, I could have brought also due to the popular, prudent and gentlemanly auctioneer, Mr. John Smith, of Brampton, of up a great number of these; but, unfortunately, RULES GOVERNING THE SUFFOLK RECORD. among this class the supply exceeds the demand. 1. Animals to be eligible for entry must have rising fame in the disposition of pure-bred stock The fact is there are too many engaged in probeen bred by reputable breeders in Great Britain, fessional, mercantile and mechanical pursuits. but to the men who bred and fed the cattle be or satisfactory evidence given that they are directly descended from such animals, with every The next thing that impressed us was the fact that longs the highest meed of praise, for the skill and the farmers are beginning to assert their position. judgment displayed in years of patient care in cross recorded. The Farmers' Institutes are doing a good work building up a herd of thirty head good enough 2. All animals imported after April 1st, 1892, in this direction. We find that at the Institute to bring an average of over \$130 in these days of must be registered in the Middle or Small White meetings farmers are able to discuss questions comparative depression. Sections of the National Pig Register of Great We give below a list of the animals with prices relating to their own calling in a manner most Britain, or the dam and sire must be recorded creditable to themselves-a fact which is bound and purchasers : to give them a much higher position among their COWS AND HEIFERS. Rules 3 to 11, inclusive, are the same as are fellows than they have hitherto held. This imfrom 4 to 12, inclusive, in the Berkshire provement is no doubt due largely to the fact that our young men have had the benefit of a Division. RULES GOVERNING THE TAMWORTH DIVISION. better education than their fathers, and are being encouraged to improve their talents in the way 1. Animals to be eligible for entry must have of public expression. been bred by reputable breeders in Great Britain, The next thing that impressed us was the or satisfactory evidence given that they are intelligence used and the improved methods directly descended from such animals, with adopted by the best farmers of Ontario, which every cross recorded. 2. All animals imported after April 1st, 1892, we believe is due partly to competition, but must be registered in a reputable British register, or the dam and sire must be recorded therein. chiefly to the Farmers' Institutes, and the dissemination of agricultural literature, among which the FARMERS' ADVOCATE takes a promi-3 to 12, inclusive, the same as 4 to 12, inclusive, nent place. And now the result of all these of the Berkshire Record. impressions is that I am more convinced than RULES GOVERNING THE REGISTRY OF IMPROVED ever that our farmers' sons are not acting wisely LARGE YORKSHIRES. in leaving the farm and rushing to the city or town in search of a "soft time." Better far 1. Animals must trace in all crosses to ancestors registered in the section for large white pigs in Amelia—w, Thomas, Teston BULLS. Reporter (imp.)—E. Sarles, Everton ... Royal Saxon—Jas. Kidd, Bradford ... Clarendon—D. Downey, Castlederg... Baron Temple—Jas. Kenny, Lockton Cavalier—R. Somerville, Teston...... Premier—A. Cameron, Teston..... stay on the farm and make good use of your the English National Pig Register. brains in lightening the strain upon your muscles, $\begin{array}{r}
 125 \\
 80 \\
 100
 \end{array}$ 3 to 10, inclusive, the same as 4 to 12, inclusive, and help your father to make a success of the most ennobling and independent occupation in of the Berkshire Record. which a man can engage. So much for the boys. In my next I will have something to say to the RULES GOVERNING THE POLAND CHINA DIVISION. 1. Animals to be eligible for entry must trace in all crosses to United States Records for Poland \$3,935 fathers. \$135 29 head-Average. Chinas in good standing.

Rules from 2 to 10, inclusive, the same as 4 to 12, inclusive, in the Berkshire Division.

The rules governing each of the Chester White, Jersey Red and Victoria Divisions are similar to those governing the Poland China

In each division an animal whose dam and sire is recorded therein is eligible for entry in that division.

Mr. Henry Wade, Toronto, Ont., is the Re-cording Secretary. He will furnish entry blanks, etc., free of charge, on application.

Mr. Ackrow's Sale of Shorthorns.

This public sale of cattle, held on the 6th of April, was a real success in every respect, and proves that good Shorthorn cattle, when offered in good condition, will bring satisfactory prices. A healthy feature in the sale was that the an meaning reactive in the safe was that the animals were bought upon their merits as indi-viduals, irrespective of what are called fashion-able pedigrees. Animals of good old fashioned lineage, as well bred as any, and carrying their claims to favor in their faces and forms, realized right good prices. Another healthy sign of the times was the exceptional demand displayed for young bulls, which proves that farmers are still alive to the advantage of using good, thick-fleshed Shorthorn bulls, in order to breed the best feeding cattle. The first eleven cows and heifers were of orthodox Aberdeenshire breeding. These, with two imported cows, bred at Kinnellar, were the offspring of Sittyton and Kinnellar bulls, from cows with one or more crosses of this blood on the imported cow, while a wonderfully thick and smooth lot of cows of several of the old standard Canadian families, in some cases topped out with three or more imported bulls of similar breeding, testifies alike to the popularity of good, thick cattle, as well as to the fact that Ontario can produce and retain the type as well as any country in the world.

Let us hope we have seen the advent of a new era in pure-bred cattle, and there will be found encouragement for even comparatively obscure and unknown breeders like Mr. Ackrow and his late lamented and highly esteemed son to do as they did in building up on an unpretentious foundation, such as they possessed, a herd of cattle that claimed the admiration of the large company of professional breeders, as well as the large assemblage of practical farmers present at

Our Farmers' Sons.

IMPRESSIONS MADE BY A TOUR THROUGH ONTARIO.

BY JAMES ELDER, VIRDEN, MAN.

Having spent three months on a stroll through Ontario, I would like to give our Manitoba farmers' sons the benefit of the impressions made by that stroll. And the first thing that impressed me was the number of commercial travellers we find on the road. No matter what train we boarded we found from two to a half dozen of these gentlemen, most of whom, of course, put on a good deal of style, and seemed to be enjoying what we call "a soft time;" and the question which arose in my mind was : "Do I envy these men?" and the answer was : "I envy them not."

First of all, because they have no home; or if they have, they are very seldom there. Whilst this may not be a serious objection with the young man-it is, or ought to be, with the man who has a family. The man who has a family must often feel that longing for the society of the home circle which only he who has experienced it can describe, or, if indeed, he ceases to feel it, then he has lost appreciation for the warmest and most sacred spot on earth. The young man, however, without perhaps thinking of the above consideration, is struck with the dignity and style of these fellows, and the posi-tion they hold. But let us just follow one of them into one of the places where they go to solicit orders, and here we find that the exceed-ingly pompous individual of the railroad train has to take second place to the plain farmer, or country lassie who may be in at the same time, and has to quietly wait while these are being waited upon, or till the merchant has nothing else to do.

The next thought is the amount of anxiety to wholesale men which is represented by these hordes of commercial travellers. How many anxious days and sleepless nights can only be partly realized by the failures reported every

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Timely Notes for May. SOWING OATS,

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I believe, to a certain extent, in the theory that the seasons in Manitoba go in cycles of seven years each, and so I venture to predict another "wet year." Under these circumstances, and even if I expected a dry season, I would certainly sow no wheat of any kind after 10th May, but would devote the rest of my land to oats, barley, etc. It is generally conceded that oats do better on spring-ploughed land than on fall ploughing, and if it is a windy time during oat seeding I would certainly plough them in, from three to four inches deep, harrowing each day's ploughing with either a press or a common drill. With the drill about nine pecks of good clean seed will give the best results. If for sale, sow only white oats, and of sorts I prefer English White, Banner and Prize Cluster. For feed, Black Tartar is preferred by many, as its yield is good, but for my own part I sow only pure white oats. In most parts of the country oats may be safely sown up to the 28th May, increasing the quantity of seed to three bushels by that date. Try to grow a heavy crop. You may just as well have 60 as 40 bushels to the acre; it will cost no more per acre, and considerably less per bushel.

BARLEY.

In many quarters barley is either not sown at all, or only so little of it that a word in time may save a number from neglecting a most use-ful crop. True, the price of "common feed" barley is low, and has been so all the past winter. But do you only try to grow "feed" barley Climb up higher grow the malting sample, and even if you are so far from a good market that you can't sell it for malting, still the qualities that make it valuable for malting will make it more valuable for feeding to your cattle, horses and last, but not least, your pigs. Barley approaches in feeding value the nearest to corn of all our grains, and a crop of 40 bushels to the acre is only a good one, nothing extra. Sow two bushels to the acre on a mellow seed bed with a press drill (if possible) about the first week in May, though it is safe to sow until 1st June. Harvest with a binder and set up in dozens, and turn the shocks once or twice, even if it doesn't rain, and stack as soon as dry. Don't let it stand a day longer in the field than actually

FENCING.

In putting up that line fence, make a fair agreement with your neighbor, and then put up a good strong fence. In fencing your field, keep the fence at least twelve feet from the growing crop, and so remove the temptation to break in. Too often we see the two-wire fence close up to the wheat or oats, and when some beast puts his head through and eats up what he can reach he naturally pushes in a little further.

Buy your wife a butter-worker. Of course you have a good churn.

Pack your butter in good tubs and ship to a commission agent, and deal for cash. Deal only with reliable firms, and after one season's trial of the cash system you won't want to return to the "trade" method.

Agitate for a creamery in your neighborhood or a cheese factory, and once started send honest milk, and all you promised to send.

Sow turnip seed this month, and into next month for succession.

Put in a good breadth of mangels; the cows will find room for them in the fall.

Try sowing a few oats and peas mixed for winter feed. "INVICTA.

P. S.-Don't patronize that "scrub" stallion because he is cheap, his progeny will be unsale-able. Try to rear something that will fetch at least \$150 at three years old. A poor horse is not as profitable as a good ox.

Crops on Forty Acres.

BY JAS. W. ROBERTSON.

In the spring of the year it was arranged that about 40 acres of land should be set apart for the particular object of growing feed for cattle, in order to ascertain and illustrate how many cattle could be fed for the whole year upon the product of that area. In many parts of Canada an im-pression has prevailed that farmers cannot keep or feed at a profit large herds of cattle unless they have large farms. In most instances the estimate is that six full grown cattle, and an equal number of young growing stock, are as many as can be fed conveniently on the fodder and coarse grain crop on a farm of representative size, of say 55 acres of cleared land. As a matter of fact, the average number of horned cattle kept per farm is about four head of full grown animals, and an equal number of growing young stock. It appears to me that the numbers of cattle might be doubled, with increasing profit to the farmers, and decided gain to the fertility of the fields. A further extension and improvement in mixed farming, which will can cattle to be fed on fewer acres, is capable of great service to the whole agricultural interest of the Dominion. This experiment has been in progress for only six months of the year. The full report can be made with satisfaction only at the close of each twelve months. The following report of progress will show the areas of land under different crops, and the yield of each which were obtained. In a general way, it may be said that the yield of crops did not reach my anticipations. The corn crop was the lightest per acre which has been gathered for three years, and a disastr ous hail storm on 13th August beat down the grain crops and battered the leaves of the corn to a very serious extent. The recurrence of an injury from that cause is unlikely in c ming years, as it has been infrequent in past years. Continued rains during the harvest season caused further losses in the grain crops. Notwithstand. ing these drawbacks, the experience of the year points to the probability that 25 milch cows will be fed, wholly or nearly so, on the product of the 40-acre lot for eleven months. On 2nd July, 25 cows were put in one herd to be fed from its yields of crops. The milk from them furnishes a supply for experimental dairy work ; and feeding experiments are being conducted with them on different rations. TOTAL YIELD OF CROP FROM 40-ACRE LOT.

	Root Crops.	
1	acre, Carrots acre, Mangels and Turnips { Mangels acre, Turnips	8,110
3	Total	74,134
1/2	acre Cabbage and Kohl Rabi	.15,296

MAY, 1892

Cured Fodder Crops.

2 acres, Spring Rye, wilted 12 hours and put in silo, 14,080 lb.
Mixed crop, cereals, second cutting, 1,825 lb.
11½ acres, Corn, wilted on an average two days, and put in silo, 130 tons 1,750 lb.
(That is equal to 183 tons, 450 lb, green weight.)
1 acre, Corn, stocked in field to cure, 11,940 lb., weighed February, 1892.

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1½ acres, Corn, fed green to the cattle (from 7th August) with mixed crop. 4½ acres, pastured. 324 acres, mixed corp.

3% acres, mixed crop, as in plots 1 to 5, fed green; nearly 1½ acres of this was used in erecting paddocks for the bulls, and the crop on it was partially spoiled by the traffic incident to the work.

The following Table and explanatory notes present the details of the different crops.

RIPENED CROPS.

Eight acres mixed crops .-- The land had no manure applied for at least five years; it was cropped every year ; it was ploughed in the fall of 1890; it was disc harrowed twice in spring of 1891; the smoothing harrows were used on it twice. It was divided into eight plots, each one acre in size.

A different mixture of grain was sown on each plot.

TABLE I.

 $252 \\ 255$ April May Aug. $\frac{30}{25}$ 11% April May Aug. do $\frac{30}{25}$ 9 April May Aug. do $\frac{30}{17}$ 864 pril ay ug.

necessary.

We hear complaints of the native hay meadows running out from constant cutting and prairie fires, and we must turn our attention to growing our own hay. Manitoba Red Clover is hardy enough for Manitoba, and I would recommend each farmer to sow ten or twelve pounds per acre, on say five acres of good land, with his oats or barley, and mix with it from 6 to 8 lbs. each of timothy and orchard grass, and a few pounds of "drop-seed". If we can only get into the way of sowing clover regularly we shall soon increase the fertility of our fields, and also cleanse them. A corner of your clover patch fenced off would keep your pigs healthy and cheapen the cost of your pork. Give it a trial.

DAIRY BREEDS,

I see from a late copy of an American paper that in a trial of breeds for butter at the New Hampshire Experiment Station that the Shorthorns came out ahead. Again, a Mr. C. W. Stanley made an *average* of 312 lbs. per confrom a herd of pure-bred Shorthorns. In this connection, it will be encouraging to those of us who have good grade cows that are paying their way, and not "stealing a living", to hold on to them and "grade up". Use only bulls from good milking dams and grand dams, and only breed from your best cows. And right here l will throw out the hint, and a broad one at that. that the dealers in dairy supplies send out a traveller with a Babcock milk tester to test farmers' cows at a fixed rate per cow. It would pay as a speculation in itself, and would also advertise and sell their other goods. Who will begin this good work?

Ripened Crops. Lb. of Lb. of Straw. Grain. 8 acres, mixed crop, as in Table I. 26,454 13,245 Golden Vine Peas...... 905

res. Goose Wheat. Beardless Barley	3 102	$437 \\ 1,373$
(Banner Oats. res, in 5 plots of mixed crop,		2,060
similar to plots I to 5 in Table I.	10,442	4,345
Totals	43,791	22,315

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		1	AMA	1
*			1230	0.0
		3	30 April 12 May 17 Aug. 17 do	5,180 1,795
	62		$\frac{30}{17}$	10.00
0		0	30 April 12 May 17 Aug. 18 do	4,975
			1230	0.00
G2		00	30 April 12 May 24 Aug. 26 do	4,860 1,595
	XX4 X40		$24 \\ 26 \\ 26 \\ 26 \\ 26 \\ 26 \\ 26 \\ 26 \\ $	10000
-		99	April May Aug. do	4.945 1,728
	Bush.	sh		.qr
	ē	Bush		- : ·
1	ley			rair
1	lar)		1111	ar :
	er l	Total per acre		an er.
ot.	at. Pe	er.		esh
f P	sown- Wheat Cheva Oats Vine I	alt	ripe. cut.	str thr
0	P N C N C N C N C N C N C N C N C N C N	Lot	WЛ 	r of
nbe	lixture sown- Goose Wheat. Damish Chevalier Barley Banner Oats Golden Vine Peas Flax.	P. 1	e so e up e wh do	tity fr
Number of Plot.	Mixture sown- Goose Whea Danish Chevy Banner Oats Golden Vine Flax		Date sown Came up Date when ripe. do cut.	Quantity of straw and grainLb Grain from thresher
F-1	R.		AŬÃ	6ch

Notes.—The mixtures were all sown on 30th April and came up on 12th May. Two pounds of flax seed were sown with the mixtures on plots 1 to 5. It ripened, and was ground with the grain for the feeding of cattle. I think at least 3 pounds per acre will give better returns. The crop from plot 6--wheat and peas—gave the largest yield of grain per acre. That mixture of grain is also the most valuable for feeding in com-bination with corn ensilage. The second largest yield of grain was on plot 5, from a crop of wheat, barley and oats. I do not recommend this mixture,

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as I consider that every mixture should contain either peas or vetches. These latter grains do not require to obtain their surply of nitrogen from the nitrates in the soil as the other grains of the mixture do.

Owing to a severe hail storm on August 13th, and rains before and during harvest time, the crops on all the plots were very badly broken down and lodged. In consequence, a large percentage of grain was shelled on the field.

Fodder Corn and the Silos.

It is not too much to say that no single subject closely related to successful agriculture, is receiving so much attention from the agricultural press of Canada, or is creating so much discussion at conventions and meetings of farmers, as that of the growing of fodder corn and the making of ensilage. The economical feeding of cattle in stables, and the increasing of the number of cattle which are kept per farm, are matters perculiarly important to the farmers of Ontario and the provinces that lie eastward of it. This brief chapter is presented for the purpose of indicating how the farmers in every district may obtain the largest service from this crop. No specific rule or direction will be found applic able to all soils, districts or seasons; but in all districts, in nearly all soils, and in every season, the corn crop will yield the farmers in the provinces which I have mentioned, feeding material for their cattle during the winter, with more profit and advantage than any other single crop, which can be grown with as little labor, and exhaustion to the fertility of the land, and which can be saved in a cured condition as conveniently.

From the corn which was grown on the Central Experimental Farm, Ottawa, some information bearing upon the comparative value of the crop of corn at different stages of maturity, has been obtained. The stage of maturi y reached, has been recorded at the "tasselling," "silking," "early milk," "late milk" and "glazing" stages of growth.

The following table illustrates the number of ears and nubbins, obtained from planting in rows 3 ft., 4 ft. and 5 ft. apart, with from 3 to 4 grains per lineal foot in the rows

Number of ears and nubbins, in rows 100 feet long, on 15th September

stages of growth of the four varieties, "Long-fellow," "Pearce's Prolific," "Thoroughbred White Flint," and "Red Cob," is found in the following table :--

IOWINg		II.					
Glazed.	Sept. 21	73.8	26.18	43,154	524	11,298	
Late Milk.	Sept. 10 do. 12 Oct. 3	8.11	22.14	42, 459	443	6,467	-
Early Milk. Late Milk.	Aug. 27 do. 29 Sept. 22 Oct. 3	80.0	19.95	45,806	399	9,138	0)
Silking.	Aug. 1 Aug. 11 Aug. 27 do. 3 do. 13 do. 29 do. 18 do. 25 Sept. 22 do. 22 Sept. 2 Oct. 3	83.8	16.17	48,052	323	021*2	
Planted. Tasselling.	Aug. 1 Aug. 11 do. 3 do. 13 do. 18 do. 25 do. 22 Sept. 2	85.73	14.27	45,329	285	6,468	•
Planted.	May 23 do. 23 do. 23	plants	een plants.	t)Lb.	n corndo.	do.	
Name of Variety.	Longfellow May 23 Aug. 1 Aug. 11 Aug. 27 Sept. 10 Sept. 21 Pearce's Prolific. do. 23 do. 33 do. 13 do. 23 do. 23 do. 23 Thoroughbred White Flint. do. 23 do. 18 do. 25 Sept. 22 do. 23 Red Cob do. 23 do. 22 Sept. 2 Oct. 3 do. 23	Percent, of water in green plants	do. dry matter in green plants.	Yield per acre (green weight)Lb.	Dry matter, per ton of green corndo.	do. per acre do.	

These figures point to a very large increase in the weight of dry matter per acre as the corn approaches the ripe condition.

calculations have been made by Mr. F. T. Shutt, Chief Chemist. A more extended analysis of the corns will doubtless appear in his report for 1891

4, 6 and 12 grains per lineal foot in each row. The land on which they were grown was so irregular in character, that no fair comparison of the yields, that may be obtained per acre from these different methods of planting, could be made. A brief report of the quality of the en-silage from these methods of planting the corn will be made will be made.

These four varieties of corn were also planted in different combinations, --(1) two rows of each alternately, and (2) two of the varieties mixed in each row. The following table s obtained from these investigation The following table shows the results

Green Weight per acre, (Calculated.)	TAE	29,090	34,090 A	33,159	33,040	30,443
	I	61	5	675	ŝ	8
Weight per acre, wilted.	Lbs.	20,785	24,350	23,685	22,600	21,745
Stage of growth.		Silking	Early milk	Silking	Early milk	Early milk
Varieties.		Red Cob	T. W. Flint	Red Cob	T. W. Flint Pearce's Prolific.	T. W. Flint
Method.		o rows alternately	o rows alternately.	ed mixed before planting	do. do.	do. do.

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		Dista	ince o	Distance of Rows Apart.	part.	
VARIETIES.	Thre	Three Feet.	Fou	Four Feet.	Fiv	Five Feet.
	Ears.	Ears. Nubbins. Ears. Nubbins. Fars. Nubbin	Ears.	Nubbins.	Ears.	Nubbir
Red Cob.	50	49	16	95	20	109
Pearce's Prolific	100	()()	16	50	143	39
Jongfellow.	81	53	191	30	134	34
Phoroughbred White Flint	13	51	45	48	63	53
Average	20	36	68	48	06	60

Corn of the same four varieties was also grown under a method of cultivation with from three to four grains to the lineal foot, in rows of 3 feet, 4 feet and 5 feet apart respectively in each case. The following Table shows the average yields per acre which were obtained from the different methods of planting :-

TABLE III.

Weights of four varieties of Indian corn sown in rows 562 feet long. Four rows of each variety were sown at the distances of 3 feet, 4 feet and 5 feet apart respectively. The corn was wilted two days before weighing.

	Distan	ce of rov	vsapart
VARIETIES.	3 feet.	4 feet.	5 feet.
	Lb.	Lb.	Lb.
Red Cob	2,970	5,330	5,305
Pearce's Prolific	2,568	2,800	4,470
Longfellow	2,464	3,430	4.110
Thoroughbred While Flint .	3,058	4,270	5,190
Average per acre	17,857	19,154	18,479

While the rows five apart showed the largest number of ears and nubbins per lineal foot in the rows, the three different methods of planting gave nearly the same numbers each per acre.

Information on the comparative percentages of water, dry matter, yields per acre, dry matter per ton, and dry matter per acre, at the different Tw Tw See

These five acres were all planted on 23rd May, eut on 12th September, and wilted for two days. The green weights per acre, would be about 40 per cent. more than the wilted weights.

There does not appear to be any advantage from the planting of different varieties in alternate rows, nor from the mixing of varieties in the same rows.

CONCLUSIONS.

In the making of ensilage from mixed crops, rye or clover, it is desirable to put the crops into the silo in a green and succulent condition. They should be run through a cutting box to provide for even distribution and close packing. They must be weighted heavily, either by the application of artificial pressure, or by being put into the bottom of the silo, which will be filled shortly afterwards with corn ensilage. The in-terstitial spaces between the fine stalks of such crops as oats, peas, rye, clover and grass, hold sufficient air to cause them to mould or decay, unless pressure be applied to expel it. The silo offers a convenient place for the saving of such crops when the weather is unfavorable, but the lighter yield which can be obtained of them per acre, hinders them from being as profitable to grow for ensilage, as a crop of corn wherever that can be grown to the "late milk," or "glaz-

ing "stage of maturity. The experience of the season points to the following conclusions of silos, and the filling of the same.

If a field with a loose, warm, loamy soil be convenient to the silo, and can be used, it should The same four varieties of corn were also be selected in preference to heavy clay or cold planted in rows, 3 feet apart, at the rates of 2, soils. Sod may be ploughed under shortly be selected in preference to heavy clay or cold

Taking into account the convenience of cultivation, the keeping down of weeds, and the quality of the stalks, it appears that the best results are obtained from planting in rows, 3 feet or 3½ feet apart, or better still, in hills, 3 feet apart each way.

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before the crop is planted, with the probability of good results from that method of preparation. In all cases the land should receive a liberal dressing of barnyard manure, be ploughed in the spring, and be harrowed to a state of fine tilth before the corn is planted.

SEED.

The vitality and vigor of growth of the variety of corn, which has been selected, should be tested. The putting of a few grains in a flower pot in a warm place in the house, will enable any farmer to verify for himself these qualities in his seed grain. Frequent disappointment results from neglect in testing the vitality of corn before planting it. As a general rule the variety which will yield the largest weight per acre, and reach the "glazing" stage of growth before the frosts come, is the one to select for any district. The "glazing" stage may be otherwise described, as the stage when the corn is just past its best condition for boiling in the ear for table use. It is better to err on the side of selecting a variety of a habit of small growth, which certainly will reach the glazing stage, than a variety of large growing habits, which may not come to the desired stage of maturity.

The maximum quantity of seed per acre may be put at 25 pounds; excellent results have been obtained from the planting of 18 to 20 pounds per acre.

MANNER OF PLANTING.

Planting in hills three feet apart both ways appears to afford the corn a better chance for maturing early, and for producing a large number of ears. A hand corn-planter may be used to dibble in the corn. From four to six grains per hill should be planted. Corn may also be planted by the use of a hoe, and covered to a depth of at least two inches. In that case the foot should be pressed on the soil over the corn. For small areas, furrows three inches deep may be ploughed three feet apart. A marker, which may be constructed by driving wooden pins or harrow teeth through a plank at distances of three feet from each other, may be drawn across the furrows. From four to six grains may be dropped at the points of intersection. They can be covered quickly and well by the planter's foot. For large areas a single or double horse corn-planter may be used with advantage. The planting of corn in hills, affords an opportunity for the effective cleaning of land from weeds without much hand labor, by permitting culti-

may be finished by a single lining of lumber, nailed to the studs, horizontally. The lumber should be tongued and grooved, and dressed on the inside. If each alternate board be allowed to extend at the corners, so as to make a lockjoint, that will give additional strength to the structure. The corners of the silo, on the inside, should be filled by the use of a board or plank, 10 inches wide, set on end. The triangular space behind it, should be filled with sand or 2×12 -inch, with one ply of sound tongued and grooved lumber, nailed horizontally on the inside, are sufficient for an efficient preservation of the ensilage. Additions to that method of construction, may be advantageous in a few cases for convenience. If a portion of the ensilage around the sides becomes frozen, that is more an inconvenience than a loss. It should be mixed with the warm ensilage, from the middle of the silo, before it is offered or fed to the cattle.

CUTTING THE CORN.

The cutting of fodder corn by hand, has been found the most economical of the methods which we have tried. If the crop be allowed to wilt in the fields, until it loses from 15 to 20 per cent. of its moisture, a pleasant aromatic odor will be developed, which leaves the ensilage with a more agreeable smell. From an examination which was conducted with two tons of corn, left to wilt in the fields, in small heaps of about twenty-five or thirty stalks each, it was found that, with two days exposure during bright sunshiny weather, the corn lost 28.5 per cent. of its weight; and with four days exposure, 36.8 per cent. After twenty-eight days standing in "stooks," it had lost 52 per cent; and after five months, it had lost 58.8 per cent. of its original green weight.

FILLING THE SILO.

It is advantageous to cut into the silo those varieties of corn, which have thick stalks, in lengths of from $\frac{1}{2}$ to $\frac{2}{3}$ of an inch. Cut into such lengths, there is no waste, and the stalks and cobs are all eaten up clean by the animals. Provision should be madefor a fairly even distribution of the corn in the silo, while it is being filled, and for tramping the sides and corners most thoroughly. The weighing of the corn does not appear to be necessary or advantageous. After the silo is filled, the surface should be levelled and thoroughly tramped; and after the lapse of not more than one day, it should be covered to a depth of 6 inches with cut straw. If a foot of cut straw be put on top of that a few days later,

My Experience With Corn Ensilage.

MAY, 1892

BY W. C. EDWARDS, M. P., ROCKLAND, ONT.

I promised you some time ago to give you a short sketch of our experience in growing corn ensilage, but regret to say that lack of time has prevented me doing it sooner. We began some seven or eight years ago, and like many other beginners sowed our first crop broadcast, and raised a considerable crop of food that was little better than water. We performed this folly but one year, and ever since have sown our corn in one year, and ever since have sown our corn in drills, with the exception of a few acres, which we tried in hills one year, and while we found this system work very well, yet on the whole we prefer the drills, and now confine ourselves wholly to this plan. As to our method of pre-paring the land for the crop, something depends on conditions and the variety of soil. But our usual plan is to plough in the autumn, and manure, sometimes on the surface, and sometimes ploughed in. In the spring we prepare to seed about the 15th of May, or as early after that date as possible. We first harrow the ground well, then plough lightly, then harrow thoroughly and roll. On some of our farms we drill in with an ordinary seed drill, stopping up all but two of the drills. But on our farm at Rockland we have always marked off the drills with a plough three and a-half feet apart, and have dropped the corn by hand, aiming to place the seed five or six inches apart, then cover either with harrow turned up side down, or with roller drawn crosswise over the drills. And now for the cultivation. Just as soon as the weeds begin to appear we begin to harrow with a light harrow with rather short teeth and slanted a little backwards, and this we continue as may be necessary until the corn is fully six inches or more high, passing over it with a hoe afterwards, and trimming up a little wherever it may be found necessary. Then we begin to use the cultivator. Sometimes we find it necessary to use teeth same as harrow teeth in passing through the first time. But after that we use the knives and cultivate quite shallow. We now use the hand hoe very little, but we pass through the cultivator every few days until the corn is far above the horse and man.

As to the seed we use, we have tried different varieties. Mammoth Southern, B. & W., Compton's Early and Red Cob Ensilage, and while we have had good success with all these varieties, yet our preference is for Compton's Early and Red Cob Ensilage. But the greatest success we have

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ation in both directions.

If planted in rows, the rows should be from three to three and a half feet apart, and the grains may be put in at rates of three to four grains per lineal foot. For small plots, a convenient method is to open a furrow with a plough; the seed may be dropped in at the rate already mentioned, when it may be covered. For large areas a single or double corn-planter will be found a serviceable implement.

DEPTH.

Corn seed should be planted to a depth of from two to three inches.

CULTIVATION.

In cases where a crust forms on the land before or immediately after the corn comes through, a light harrowing will prove very helpful to the vigor and growth of the crop. Harrowing of the corn until it is six inches high, will increase the rapidity of growth and the yield per acre. The cultivation between the rows, when the plants are small, should be close to them and deep. When the plants have grown to a height of more than three feet, the cultivation should be more distant and shallow in order to avoid injuring the side roots of the plant.

ILOS.

The main features that are required in a silo, t are strength to resist the outwards pressure of its contents, exclusion of air by the construction of the sides, and a fair depth of holding capacity, a in order to permit the ensilage to settle into a compact mass. Sufficient strength of sides can by obtained in most silos, by the use of $2 \ge 10$ -inch or $2 \le 12$ -inch studs, placed from 18 tinches to 2 feet apart. A clay or earthern floor is most economical, and as good as any that can be put in. The inside of the walls of the silo

probably no loss at all from waste ensilage, will be found on the opening of the silo for feeding. The feeding should be effected from the top of the ensilage, and a quantity of the exposed ensilage should be raked from the top daily.

Promising Districts at the Coast.

BY SUBSCRIBER, DEWDNEY, B. C.

I have been a reader of the ADVOCATE for three years, and think more ought to be written from our province than praise of the grandeur of her mountains and rivers. Although too much cannot be said of the scenery of B. C., I for one would like to see more in the ADVOCATE about the agricultural and fruit growing resources of the province. Certain parts bid fair to become foremost in the Dominion for the above mentioned industries. One of the sections that is rapidly progressing includes the valleys of the Lower Fraser. On the north side of the river is Chilliwhack where farming is now extensively gone into, and pedigreed stock is imported to this valley, from the eastern provinces, of all breeds. Fort Langley, with its hop fields, and Ladness. with its thousands of acres of grain-growing land, also deserve attention. Then on the south side there is Agassiz with its lime cliffs. Dewd. ney, which is a very large valley, is a comparatively new settlement, yet there are large orchards set out, and a number of hop fields Port Hammond with its banks of clay, which are productive of a very fine quality of brick is attracting attention, besides the large tract of prairie land which is not yet brought under cultivatiou. I suppose the valleys here men-tioned will be new to most of the reader of the ADVOCATE, but in the near future they are des tined to be better known and more highly appreciated.

ever had was last year with Red Cob Ensilage and Longfellow, a Canadian variety, sown in alternate rows. The Longfellow almost completely matured, but being a native variety it was of course very much smaller than the Red Cob; at the same time this permitted the sun getting in and about the Red Cob, and it grew larger size than if the whole crop had been of this single variety, and it also matured fairly well. On the whole I do not think the weight of the entire crop was much less than if it had been all of the large variety, and the feeding value was much greater. It has proved to be very satis-factory feed indeed. We have fed some sixty steers upon it for the entire winter, and are yet feeding them ; they are ready to turn off in excellent beef, as soon as the market will take them, and the only addition to the corn ensilage has been about five pounds of cut oat straw per day to each steer, and an average of five to six pounds a day of ground feed. We began with two pounds per day, and it was the first of this month before we reached eight pounds per day.

As to soil for growing the crop, we have grown it on almost every variety except black muck—it we have never tried; but we have grown it on light sandy soil, sandy loam, sharp gravelly soil and clay loam, and have never failed to grow a good crop on any one of these soils, and we have done as well as any on a good elay loam. Of course, good drainage is always a necessity to sure success.

Last season, finding it necessary to plant more corn than we had calculated for the autumn before, early in the spring we ploughed a ten-acre field that had laid waste for some years; the soil is sandy, and was always considered too poor to grow anything. After ploughing we harrowed it well, and with the use of a disc harrow

FARMER'S ADVOCATE. THE

running crosswise over the furrows, the sod was thoroughly cut up. We then manured and ploughed again, and planted the corn as herein We then manured and before described, and the result was one of the finest crops we have ever raised. In conclusion I will say that we have had great general success in growing ensilage corn. We think highly of it as a most useful and cheap food, and one most conveniently handled. At some future period we shall be glad to give you our views as to silo construction, and our method of harvesting the crop, opening our silo and feeding the ensilage.

Experiments With Alkali Soils.

BY FRANK T. SHUTT, CHEMIST DOMINION EXPERIMENTAL FARM.

The statement (NOTE-made in an eastern newspaper .--- ED.) that "alkali patches" can be made as productive and valuable by simply ploughing the land and leaving it fallow, causing the alkalio so evaporate, is unfortunately not correct nor the treatment effacacious for, the reason that the "alkali" is not of that nature that it "will evaporate from exposure to air."

Mr. Bedford, superintendent Manitoba Experimental Farm, Brandon, writes me that "the patches usually occur in the lower portions of heavy, strong land, and land insufficiently drained." A heavy clay or hard pan subsoil very often serves to prevent the washing out of the "alkali," which, remaining more or less in the surface soil, accumlates there rather than diminishes. The falling rains wash it a few inches below the surface, while capillary attraction and evaporation serve once more to leave it as a white incrustation exposed to the air, into which, as I have stated, on account of its non-volatile character, it cannot escape.

During the past year an investigation into the composition of these akali soils has been made in the laboratories of the Dominion Experimental Farm, Ottawa. The work is as yet not completed, but when the experiments now in progress are finished we expect to be in possession of data that will allow us to assist the Manitoba

Manitoba Studs, Herds and Flocks.

" SPRUCE BANK FARM " SHORTHORNS. On the shores of Oak Lake, about seven miles south of the C. P. R. main line station of that name, is located "Spruce Bank Farm," the property of Mr. R. L. Lang. While admirab'y adapted for the culture of wheat and other grain this district possesses advantages for the pursuit of live stock husbandry, such as abundant pasturage and water, not everywhere available. With an inherent love for live stock Mr. Lang has very naturally turned his energies with praiseworthy enthusiasm in that direction, and the expectations of an ADVOCATE representative were not disappointed at the condition in which his Shorthorns and Berkshires were found on a recent visit. During the past season he provided additional stabling and everything was comfortably and intelligently housed. Close at hand also were large stacks of straw from which all stock was generously bedded, a matter too often neglected by some Manitoba farmers, whose great anxiety seems to be to burn the straw or scatter it all as far from the barns as possible, leaving stock to stand on bare, damp, cold boards or wisps of hay perhaps all through the winter. Wind breaks for the protection of Mr. Lang's garden, house and outbuildings are coming on splendidly, adding not only beauty but comfort to the place. Merry Monarch -9219-, at the head of the herd of Shorthorns, is a red bull with a little white, bred by Mr. D. Alexander, of Brigden, ember, and is developing good size and a lot of quality, and carries himself in stylish form. Laurel Lustre, also bred by Alexander, now three years past, is a grand cow, a rich roan in color, sired by imported Venturer —6445—, dam Lustre 24th. Her mate, The Queen, bred by Thos. Russell, of Exeter, Ont, is a cow of fine proportions with many strong points. She was by Prince Royal —5763—, dam Barmpton Prince Royal -5763-, Kinellar. She was three years old in January, and will fill out considerably yet. Both are carrying plenty of flesh and handle well. Pride of Spruce Bank, bred by Sharman & Sharman, of Souris, Man., is a very promising red, with a trifle white, got by Buchan Laird -4347-, dam Lady Howard, by Waterloo Warder. She will be three years old next November. Another choice cow is Countess of Blandard, a red, three years old next August, bred by Shanks Bros., of Rapid City, got by Sir Ralph, dam Minnie May, by Duke of Cumberland. At the time of writing each of these cows had calves, two roans and two reds and whites, all by Merry Monarch, and a grand lot highly creditable to their sire. Another of the foundation cows of this herd is Gaiety of Rotherwick, a roan two years old next August, bred by Sharman & Sharman, got by Buchan Laird, dam Gaiety 6th. About forty-five head of useful grade cattle completes the lot. Pure-bred Berkshire pigs of a decidedly superior type constitute another specialty at Spruce Bank, type constitute another specialty at Spruce Bank, the sires being Viceroy -1300 -, bred by Snell, of Edmonton, Ont., a lengthy pig of great substance, three years old, and Markwell 2nd -1909 -, a yearling bred by Thos. Russell, the sows being Gem -1379 -, three years old last November, Spruce Bank Gem 2nd -2025 -, and Queen of Spruce Bank -2166 -. The first two had large litters of yeary promising youngsters at the date litters of very promising youngsters at the date

stallion, Auld Langsyne (5504); not one of the ponderous type, but still a decidedly useful style of horse. He is a bay, bred by Hugh Brown, Templand Mains, Dalry, Ayrshire; sire Stud-Book Laddie, dam Sweet Hope of Lissensmoss, foaled June 10th, 1886. There was also a pacer among Mr. Lang's importation, built evidently for speed, and bearing the rather ambitious name of Hal Pointer, but not the "Hal" of United States race track fame.

J. D. M'GREGOR & CO'S " ABERDEEN-ANGUS RANCH."

Some twelve miles south of Oak Lake station, on one of the choicest grazing sections of the province. Messrs. J. D. McGregor & Co., of Brandon, have established a herd of Aberdeen-Angus cattle. A proportion of the section has been broken for the purpose of raising oats and other coarse grains. Water is plentiful, while a grove of oak and poplar skirts the west side and forms a capital shelter for buildings. The herd includes some sixty head, not counting this spring's crop of calves, and forms part of a larger herd of Angus cattle imported into the Northwest by Mr. Gordon Cumming, of Calgary, in A lot of the best were selected as the 1889. nucleus and brought to Oak Lake in October last. Of the bulls used in this herd, we will begin with Royal Souter. This grand young bull was purchased from Clement Stephenson, of Newcastle-on-Tyne, one of the most successful breeders and exhibitors of the present day. Mr. Stephenson considered him good enough to use in his own herd, and his judgment was not at fault, as a yearling steer by him was 3rd at Birmingham and 1st at last Smithfield Show. A large number of young s'ock are by this excellent sire. Barrasford, also bred by C. Stephenson, is half brother to Royal Souter, and has been recently sold to Mr. Wrightman, of Melita, at a good price He is fortunate in securing such a fine young bull. Kinloss and Joker of Ballendalloch are from the famous Ballendalloch herd of Sir George McPherson Grant, a herd so celebrated in the anals of Polled. Angus history that any remarks on it here would be superfluous. Donald Dhu of Mulben, a splendid young bull from the herd of J. McPherson, of Mulben, is now the bull principally in use on the herd, and is a very grand specimen of the breed.

he to the cows. The pick of the

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and the Northwest farmer very materially in solving the difficult problem of how to improve these soils.

In the meantime I would say that the work done seems to point emphatically to thorough drainage as the most efficient means of getting rid of this troublesome and very soluble constituent. Wherever practicable this should be resorted to. Again, deep and thorough tillage serve to deter the accumulation of alkali near the surface by preventing surface evaporation.

Many advise a heavy coating of manure, animal refuse or other highly nitrogenous matter to these spots, reporting good results from this practice. The beneficial effect may be due to a more vigorous growth being induced, and so enabling the plant to withstand the poisonous action of the alkali. Gypsum is also recom-mended. Where the alkali is sodium carbonate (sal soda), the gypsum coverts it into a less caustic and corrosive salt to vegetation. It is applied at the rate of 500 to 1,000 lbs. per acre, according to the amount of alkali present. Apart from the presence of "alkali," these patches of soil are very fertile and capable of producing magnificent crops. Hitherto little has been done in Canada towards their reclamation. Their improvement is worth working for, and may well occupy the attention of the practical farmer and the scientist.

[NOTE. -- Mr. Bedford has forwarded additional quantities of our alkali soil, and also the white alka'i incrustation to Mr. Shutt who proposes to continue his experiments along that line. - ED.] district, and among them an imported Clydesdale

MR. JAMES LANG, OAKLAND HEIGHTS.

On an adjacent farm resides Mr. James Lang, brother of the former, and also a most successful young farmer. A good horse "fills his eye" on which cattle fail to make any serious impression. This spring he imported two carloads of extra good farm horses from Ontario for the

basket perhaps, is to be found amongst the seven head from the Altyre herd of Sir W. Gordon Cumming, containing representatives of the Pride, Vine, Rose, Oakleaf and Mayflower families. This herd has, perhaps, done as much if not more than any other in bringing prominently before the public the Polled-Angus as a beef producer, by the phenomenal success obtained by two animals exhibited in Lnndon in 1881, who swept everything before them, and at the finish fought between themselves for the proud position of champion animal of the year. A reference to the report of last year's Birmingham and London shows, demonstrates that the herd is still keeping up its position, as one first at Birmingham and two firsts and a second at London were obtained this year. An Altyre bred ox shown by Baron Rothschild was also first at Birmingham in[®]his class.

The herd also contains selections from the Kirkton, Earnside, Tullochallum, Mulben and Burnside herds. Any doubts as to the excellence of the Polled-Angus as a beef producer may be dispelled by reference to the re ord obtained by Mr. Clement Stephenson with his Polled heifer Luxury (7783), which, when brought to the block test, after having won the championship both in Birmingham and London in 1885, gave a return of 767 lbs. dressed meat to live weight. This record has never as yet been approached by any other breed. Records of Polled-Angus killing over 70 per cent. are, however, by no means uncommon, as reference to any of the block tests in either England or America will demonstrate. In selecting these cattle, Mr. Gordon Cumming was careful to take only animals with good con-stitutions, avoiding all over-fed and pampered

THE FARMER'S ADVOCATE.

Growing Onions.

SOWING SEED IN DRILLS VS. TRANSPLANTED PLANTS.

When visiting the trial grounds of John S. Pearce & Co. last season, we were very favorably struck with the marked difference between the bulbs of a plot of onions, part of which had been sownin the ordinary way at the usual time in drills, and part transplanted. The difference was so marked that we had photographs taken, and cuts prepared from same for the ADVOCATE. Cut No. 1 shows the onions as grown in the ordinary way from seed sown in drills. Cut No.

Treating Grain for Smut.

BY JAMES FLETCHER.

to harvest from plants transplanted from a hot bed into the drills. The seed was sown about the lst of March in an ordinary hot-bed, and then transplanted about the 25th of April into the plot as shown in cut. Comment is unnecessary on this difference in the crop, and the method is well worthy of a trial by all onion growers, the only question being the cost and labor of transplanting. But this must be more than amply met by the very superior onions and early maturity and soundness of the bulbs, together with nearly if not twice the bushels per acre.

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large receptacle and pour in grain until it almost reaches to the surface of the liquid, stir well and skim all "smut balls" and rubbish from the top. Leave the grain to soak for a quarter of an hour, then pour off the liquid and spread the grain out thinly to dry, and sift dry lime over it. 2. Dissolve I lb. blue-stone (copper sulphate)

in 20 gallons of water, stir the grain well and leave to soak for twelve hours, then soak in lime water (lime slaked in ten times its weight of water) for ten minutes. 3. Should the above be inconvenient the fol-

lowing may be substituted :--1 lb. sulphate of

of the treatment in use, perhaps the best, is to immerse the seed twelve or fifteen hours in a onehalf per cent. solution of sulphate of copper, that is, 1 lb. in 20 gallons of water, and then put the seed for five or ten minutes in lime water, made by slacking lime in ten times its weight of water. This, if properly carried out, will prevent the smut, with but little injury to the crop.

Cooke & Berkeley, the highest English authorities say: "Since dressing the seed wheat has been so widely adopted in this country, this pest has been of comparatively little trouble."

> Oat Culture, Seeding and Smut.

MAY, 1892

This question has been under experiment at the Ohio station for four years. In 1888 the largest yield came from plots seeded at the rate of five and six pecks to the acre. In 1889 the yield from the plots seeded to the rate of five, six, seven and eight pecks was practically the same. In 1890 the results were very irregular, owing to the disease of oats so prevalent that year. The plots receiving five, ten and twelve pecks gave the largest yields. In 1891 the experiment was duplicated, two varieties of oats

the season was favorable. The results are given in the following table :-

acre.	Wideawake.	Clydesdale.
4 pecks.	44.1 bushels. 45.6	39.1 bushels
j	49.7	41.1
N	50.9 50.3	42.2 **
)	45.9 "	42.4 "

t will be seen that with both varieties the largest yield came from seeding at the rate of en and eight pecks

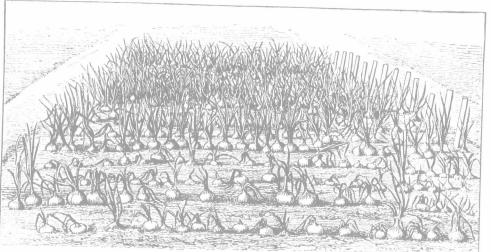
NO. 1.-ONION SEED SOWN IN THE ORDINARY WAY. which is then sprinkled by one person over ten | was done on land very uniform in quality, and

bushels of wheat placed in a wagon box, whilst some one else keeps the grain well stirred. The constant enquiries which come to me Should a large amount of smut be detected in from farmers as to the best way to treat grain grain required for seed, the solution is made stronger, double the quantity of blue-stone being for smut, make it advisable to draw attention through your columns so widely read to a wellthrough your columns so widely read to a well-known but effectual remedy. By the time your next issue appears farmers will be preparing to sow their seed grain. During the past season wheat, barley and oats in many parts of Canada were seriously attacked by the fungus diseases known under the general head of "smut." These diseases are all one to the attacket of paragitie used

To your own subscribers, I would recommend them to refer to your number for January, 1891, where the subject is treated fully by Prof. Panton. It was also exhaustively treated in Bulletin 3 of of the Central Experimental Farm, Bulletin 56, Ontario Department of Agriculture, and Bulletin diseases are all one to the attacks of parasitic 32, Manitoba Department of Agriculture.

minute grains of black powder of which the smut consists. These small grains, which are the fructification of the smut plant, are called spores, and are bodies analogous to the seeds of more highly organized plants. The diseases are transmitted by means of these spores or "seeds" which adhere to the grain, and are sown with it. They then begin to grow and penetrate the tissues of the growing plant, and in time destroy the seed. The above being the case, and the crop grown in 1891 having been badly in-fested by these enemies, there is every probability

plants, and are propagated by means of the



NO. 2.-ONION SEED SOWN IN HOT-BED AND TRANSPLANTED.

that the crop of 1892 will also be largely de-

stroyed unless measures are adopted to prevent it. There are several kinds of smuts, and botanists recognise those which attack the different small grains as different species. For practical purposes, however, they may be considered by farmers as identical, because they all can be overcome by the same remedy. There are

There is no question as to the efficacy of the | to about 135 degrees. copper sulphate treatment, and the small percopper suppare treatment, and the small per-centage of injury to the vitality of some of the grain, is not worth considering, when compared with the crop of good, clean grain reaped. Wheat, oats and barley may be treated in the same way; but oats should be submerged, not sprinkled. Prof. Dellerman, one of the highest several remedies recommended, and for this reason many farmers do not try any. I advise the following, which I believe, from all consider ations, to be the best :--1. Dissolve 1 lb. blue-stone (copper sulphate) in two gallons of water : place this in some in two gallons of water; place this in some vitriol (sulphate of copper). Of the many forms luxuries that are not credited.

per acre. The Wideawake weighed 281 to 301 pounds per bushel, and the Clydesdale 351 to 37. In both cases the lightest oats came from the four-peck rate of seeding, and the heaviest from the seven-peck rate.

PREVENTION OF SMUT IN OATS.

Repeated experiments, made at the Ohio Experimental Station and elsewhere, prove beyond doubt that the loose smut of oats may be almost completely pre-vented by dipping the seed in hot water. To do this, have two vessels, in one of which water is kept heated to about 120 degrees, and in the other

Have a loosely made basket, with a wire or cloth cover, and considerably smaller than the vessel containing the hot water. Fill the basket with oats, fasten down the cover and set it in the vessel in which the water is heated to 120 degrees. Let stand ten minutes or more, shaking occasionally, so as to get the oats warmed up to this point, then take out and dip quickly into the water heated to 135 degrees, shake or stir vigorously far five minutes, then remove and spread out to dry.

The farm yields the farmer a great many

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THE FARMER'S ADVOCATE.

FIRST PRIZE ESSAY.

The Six most promising varieties of Potatoes grown in the District in which the writer resides. and the mode of culture which has given the best results.

BY THOS. COPLAND, SASKATOON, N. W. T.

The great range from very poor to very good crops of potatoes, in a country where it is easy to have good crops every season, should make any farmer open both eyes and ears to discover why one crop is so small and another within sight, on no better land, is so big. The small one may be 60 bushels of miserable little things to the acre, the big one turns out 300 bushels or more of large, well developed tubers of superior quality from equal ground. The certainty of good crops of this tuber and the ease with which they are produced has led to carelessness in preparing the soil, so that the big crops are becoming the exception. The writer knew a farm where two parties, in 1890, obtained from the owner the privilege of planting potatoes, and the farmer's own were planted close at hand. One had a failure, the other a very small crop, and the farmer himself an excellent return of prize-takers. The failure was due to using seed cut too small, and not thoroughly preparing the ground; the partial failure, to plowing in rough manure with the seed so that the ground was dried out too much for the roots to gather nourishment. As failures generally come from these causes or not having the land plowed deep enough we will now confine ourselves to decribing how to raise good crops, but before doing so would just say, never mind the man who tells you to "plant at the increase of the moon or your potatoes won't grow!" Get the ground ready and plant in suitable weather as near to the middle of May as possible, whether the moon is waxing or waning. The method followed most commonly by successful potato growers in this section, and by the writer, is as follows :-First of all the land is plowed deep, and when possible this should be done in the fall, and the furrows left rough so as to expose the soil to the action of frost, and collect as much snow as possible. Before this fall plowing is the best time to put on a good supply of stable manure, well rotted, and turn it under. New land almost anywhere in the North west is so rich that a good crop will be obtained without manure if the land is thoroughly prepared. In the spring harrow till the soil is mellow, and plow again, crosswise of the fall plowing if convenient, as deep as you can go, and harrow till all is mellow. If the cultivation up to this stage has been done when the soil was in a proper condition it will now be ready for the seed, and the weight of the crop will be in exact proportion to the depth and thoroughness of the cultivation, for shallow plowing with meagre pulverizing means little food for the roots, while a deep mellow soil lets them revel in luxury. There is no doubt but that by far the largest crops can be obtained by planting on the trench system, but that entails far too much labor for the average farmer, and the plan of dropping the seed into every third furrow after the plow answers every purpose and insures a good crop. Medium sized tubers cut to an average of two eyes in the set, and cut say two days before they are wanted for planting will give the best results, though in a very dry spring uncut potatoes about the size of a hens egg will be equally good. Run the plow furrows 11 to 12 inches wide so that the potato rows will come 2 feet 9 inches to 3 feet apart and drop the sets about 1 foot apart in the rows. It is supposed that the land has been previously cultivated, say from 9 to 14 inches deep, according to circumstances, but in planting the plow should run about 6 inches deep and a little loose soil will always fall into the furrow so that the potatoes will be planted about 5 inches deep. In a week or so after planting a stroke of the dragharrows, lengthwise of the rows, will smooth the ground and kill many germinating weeds. Again, when sprouts begin to show above ground, give say a double stroke of the harrows and nothing more will be required till the rows show well up. After this, especially in dry weather, cultivate shallow and often with a drill cultivator or scuffler; never hill or ridge up therows but cultivate level, and keep down weeds. Lambs quarter is a gross feeder and takes the same kind of sustenance the potato does, therefore if both are grown there will be less potatoes. This mode of cultivation has never failed in this section to raise the largest crops, and the potatoes have always been of the best.

A few words in conclusion as to varieties grown. The writer has tried about 40 named kinds and raised probably 200 seedling varieties. Along with Early Rose we may class Early Sunrise, Early Vermont and some others which are so much alike in every way that Early Rose may stand tor the lot and be our standard of comparison, and, supposing we rate it by points, others would compare something as follows:—

Variety.	Productive- ness.	Quality.	Vigor,	Earli- ness.
Early Rose	100	100	100	100
Beauty of Hebr	on 98	108	105	100
Early Ohio		102	98	105
Early Puritan	94	102	102	95
Rural N. Yorke	r No.2 98	100	100	94
Burpee's Extra	Early102	108	98	112
The former	abow bow	noomles 1	hama la	d the

The figures show how results have led the writer to estimate the different varieties, highest number being highest in estimation. Late varieties seldom do so well.

Weeds.

BY J. HOYES PANTON, M. A., F. . . 8. (Continued from page 5^{*}.)

Sisymbrium officinale (Hedge Mustard).

Plant one to three feet high; wide spreading branches; small yellow flowers; pods awlshaped, *closely pressed* to the stem, and erect, of about same size as those of common mustard. A very common roadside weed, growing usually close to the sidewalks in villages and small towns, but seldom proving a nuisance on the farm.

PAPAVERACEÆ (Poppy Family).

We are not troubled much with weeds from this order, of which the plants have a milky or colored juice, regular flowers, which soon fall to pieces and cover the ground where they have This is sometimes found by the waysides, having escaped from gardens, where it has been grown. The flowers are small, of yellow color, and arranged in a sort of umbel; the pods long and slender. The juice is a thick yellow fluid. It is not likely this plant will prove troublesome where thorough cultivation is carried on.

HYPERICACEÆ (St. John's-wort Family.) The only plant in this family that may be classed as a weed is :---

Hypericum perforatum (St. John's-wort).

This has a shrubby appearance, and is about $1\frac{1}{2}$ feet high. It is very common along the railway track, where its yellow flowers present an attractive appearance. In some places it becomes a nuisance, and as the root is perennial, it is not easily destroyed. But where the land is thoroughly worked it is not troublesome. The spotted appearance of the leaves, especially when held between the observer and the light, together with the innumerable stamens in its yellow flowers, serve to distinguish it from other flowers of the same color.

CARYOPHYLLACEA (Pink Family).

Herbs, of which the stems are somewhat enlarged at the joints; leaves mostly opposite and entire; flowers terminal, consisting of four or five parts. Some very beautiful flowers are found in this group, such as the Pinks, Carnations, Soapworts and Sweet William.

Lychnis Githago (Purple Cockle). FIG. 13.



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been in bloom.

Papaver rhwas (Field Poppy).

This variety bears red flowers, which are exceedingly common in the fields of England, but as yet have not got such a foothold in Canada. The variety P. dubium, with lighter red flowers, is also making its appearance. Hand-weeding is a good method to get rid of these annual weeds bearing showy flowers.

Chelidonium majus (Celandine). FIG. 12.

Celandine

A beautiful flower, but in the wheat field it has lost its attractiveness, and is considered a pest. Its seeds are not so readily got rid of in cleaning the wheat as some, so that it injures the quality of the flour. The plant has a grayish look; is about 2 to 3 feet high, and bears beautiful violet-purple flowers. The seeds are black and irregular in form. The bright flowers make it readily seen, so that it can be pulled before seeding, and being an annual, be checked in its distribution.

Silene inflata (Bladder Campion). FIG. 14.



THE FARMER'S ADVOCATE.

This plant bears a white flower ; the calyx or outside floral cup is quite veiny and bladder-like in appearance. The pistil has three styles, while the cockles have five. It is a perennial, and in some parts quite common, but is not difficult to suppress by clean cultivation.

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Lychnis vespertina (White Cockle).

This weed has a white flower, which, in general appearance, resembles the Cockle; but an examination of the flowers shows there are two kinds—those on one plant being all staminate, those on another pistillate, that is, each plant bearing one set of reproductive organs. This biennial plant is getting more common of late, but is not difficult to get rid of where thorough cultivation is practiced.

Cerastium arvense (Field Chickweed.)

This weed is usually found in dry fields, and is sometimes very common; leaves hairy and small; white flowers, with five notched petals twice as long as the sepals; the stems are also hairy. Not a troublesome weed.

Stellaria media (Chickweed).

The stem of this annual is weak and spreading, with a line of hairs ; leaves somewhat oval and many small star-like white flowers, and is generally found growing on damp ground. It is quite hardy, but is readily checked by underdraining and frequent cultivation. Saponaria officinalis (Bouncing Bet). FIG. 15.



A Co-operative Gristing Mill for the **Portage Plains.**

In the February issue of the FARMER'S ADVO-CATE a correspondent introduced for discussion the subject for co-operative milling. Since then a Glenlea, Man., correspondent, Mr. R C. Welsh, has written us in favor of farmers establishing flour mills as well as elevators, and at a meeting of the Portage la Prairie Farmers' Institute the President, Mr. Thomas Sissons in the chair, Mr. Smith Curtis read a paper entitled: "A Co-operative Flour Mill." He looked upon a local mill, where gristing could be done and exchange could be given upon a just basis and where flour could be purchased at a fair price, as a necessity and a benefit to a farming district.

Among other things he said :— "The Manitoban pays the same price as the Torontonian and Montrealer for Manitoba flour. "The price of Strong Bakers in our town is about \$2.60 per bag of 98 Ds.; the retail price in Montreal and Toronto is an average of \$2.65. No. 2 hard wheat will make a straight grade of flour at least equal in value to Strong Bakers. The price of that wheat here is 66 cents; in Montreal or Toronto it is \$1.03 to \$1.04, that is 57½ per cent. more than it is here, yet our flour made from it is as cheap there to the consumer as it is here. "I bushel of No. 2 hard wheat will make 44 Ds. of flour, 4 Ds. of shorts and 10 Ds. of bran, 2 Ds. being allowed for waste. "We will be safe if we take 2½ bushels of wheat to make a bag of flour. As will be shown later on, a good profit can be made by charging 12½ cents per bushel for gristing. We can easily see what a bag of flour equal to Strong Bakers should cost the farmer at the mill :— Among other things he said :-

\$1.7616 Then he has 2216 fbs. bran and 9 fbs. shorts, worth 1/2 cent per fb., or say.... .1516

Making the 98 lbs. flour cost..... \$1 61 "Hence, he now pays 99 cents too much: allowing the retailer a profit of 30 cents per hundred, the townsman, too, is paying 69 cents per cwt. too much. On the foregoing data, and according to population, he estimated that the town and district of Portage la Prairie was sustaining an annual loss of \$22,000, allowing the retail dealers thirty cents per bag for handling. In the same way, taking the province as a whole, he figured the loss to the farmers to be close on a quarter of a million dollars. The remedy was for farmers and townsmen to co-operate and build an independent mill. He said the average saving to the farmer on his own flour consumption would be \$17 or \$18 per year, almost enough to pay his taxes. The local consumption he estimated, for Portage and district, at about 26,635 bags or 13,317 barrels, enough to keep a 50-barrel mill running day and night for 260 days in the year and would grind 60,000 bushels of wheat. He suggested a 100-barrel mill large enough for double that capacity, proposing a joint stock company with a capital of say \$20,000 in S00 shares of \$25 each. He went at length into the details of building, equipping and running a mill, estimating that a good paying profit could be made by charging 121 cents per bushel for gristing. After a careful discussion, the Institute adopted a resolution on motion of Mr. W. C. Graham, seconded by Mr. C. Braithwaite, favoring the establishment of a mill in Portage la Prairie on lines similar to those laid down in Mr. Curtis' paper. At a subsequent meeting of farmers and others called specially for the purpose, the chairman, Mr. S. R. Marlatt, stated that he used about 26 cwt. of flour per year in his own household, costing about \$78. If he could exchange wheat at such a mill as proposed for the flour, bran and shorts that could be made from it, paying twelve and a-half cents per bushel, he could save \$21 per year, and have the bran and shorts besides. Mr. Sissons favored building the mill, but advised proceeding carefully in the matter. Mr. John A. Ingram said it would be need sary for the mill to turn out a first-class grade of flour, and urged getting further light on the subject.

L. Metcalf, Capt. Butler (of Poplar Point) and others addressed the meeting.

It was finally moved by S. Curtis, seconded by C. J. Green,

by C. J. Green, That Messrs. S. R. Marlatt, Thos. Metcalfe, W. P. Smith and S. Curtis for the town, and Messrs. T. Wallace. Thos. Sissons, D. H. McCowan, C. J. Green, Wm. Fulton, Geo. Tidsbury, Robt. Coulter, Capt. Butler, James McKenzle, James Gilmour and W. C. Graham for the rural municipality, be a com-mittee to get estimates of cost of available sites for a flour mill, cost of a building, and cost of machinery for a fifty, seventy-five and one hundred-barrel mill; also to canvass for subscribers for shares in the rural municipality and the town of Portage la Prairie, and also to devise a scheme on which the mill might be operated so as to make it the greatest possible benefit to its shareholders and the inhabi-tants of the town and adjacent country, for sub-mission to a subsequent meeting. Carried. Since then, under date of April 6th, Mr,

Since then, under date of April 6th, Mr. Curtis writes the ADVOCATE as follows :

"The committee appointed to suggest a basis for running the mill have not yet finally decided what to suggest and will not for some weeks. They cannot do it until full information as to cost of plant and working expenses, etc., has been got. In the meantime shares in the pro-posed company are being canvassed for and are rapidly being taken up. In two and a half days one-half the shares expected to be subscribed for were taken by farmers casually met in town by the canvasser. It was proposed to borrow \$4,000 or \$5,000 by loan on the mill, but it looks now as if that will not be necessary. It has, so far, been the easiest scheme to float that has ever been started here. Yours truly, SMITH CURTIS, Sec.'y Com."

The Co-operation of Farmers is Being Realized.

The outcome of the Grange, and the after cooperation of its members in handling all kinds of goods required by the farmer, has led to founding of what is known as the Grange Wholesale Supply Co., whose place of business is 35 Colborne St., Toronto. This company was organized, and is owned and controlled by the farmers for the purpose of procuring their supplies as nearly as possible as at first cost of production. The popularity of this institution is proved in the rapidly increasing trade that has developed in the last six months. It is also not surprising that the movement should have found enemies. Prominent among these are the retail druggists, who, through have declared that they will no surchase goods from any firm that will sell to the Grange Wholesale Supply Co., and have thus determined to boycott the Grange in the drug line, and thus stop them from selling drugs. The result is that Lyman Bros., who heretofore have supplied the company with drugs for the past ten years, have recently refused to sell to them rather than lose their trade with the retail men. Fortunately the company have a large supply on hand, and will continue to give their patrons the benefit of securing the best drugs at the lowest possible figures. A number of the members of the more newly formed association of Patrons of Industry, during their late convention held in Toronto, visited the company's store, and became so interested in the principles of co-operation carried out by the ompany that they appointed a special committee to nvestigate their mode of business, with the esult that the following report was unanimously eccived :--- " That this store deserves the patronge and support of every farmer who is loyal and true to his own best interests, and is daily receivng the co-operation of this thinking community."

A strong, coarse plant in the Pink family flowers somewhat pinkish, clustered in corymbs leaves 3-5, ribbed, 2-3 inches long; lower ovate; upper more tapering; stem 1-2 feet. Being a perennial and vigorous grower, this weed spreads rapidly. It is very common by the roadsides, Lundy's Lane, Niagara, and other parts of Ontario. It does not appear to invade cultivated fields to any great extent, but is chiefly confined to the roadside.

Insect Life, the periodical publication of the Divison of Entomology of the U.S. Department of Agriculture, contains among the editorial articles of its April number an account of a dangerous potato pest which has recently found its way into this country. It is known as the Potato-tuber Moth (Lita solanella, Boisd.), and was first noticed in 1855 in Tasmania. It has bech very destructive to potatoes in Australia, Tasuanda, New Zealand, and Algeria, but in this country did not attract attention until Nevenber, 1891, when it appeared in California. The network advised is the immediate seclusion

Mr. Thomas Wallace favored a fifty-barrel mill, and did not think it desirable to enter into competition with the large milling companies. Messrs. D. H. McCowan, C. J. Crein, Thes.

Farmers' Bulletin No 7, just issued by the U. S. Department of Agriculture, treats of the practice, methods, and efforts of spraying fruit ees for insect pests and fungous diseases. The ject of spraying is presented in the bulletin a practical manner for information of the hardist and fruit grower, and special attention is given to meeting the objections now being saised in Great Britain and other countries against the use of fruits produced in the United States. The facts brought together show conclusively that the spraying of fruit trees does not injure the fruit or make its use dangerous to con-

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THE FARMER'S ADVOCATE.

Methods of Hastening the Ripening of Wheat by Cultivation, and **Modes of Preventing** Injury by Frost.

[Read by D. F. Wilson before the Brandon Farmers Institute.]

(Continued from page 128.)

As to protecting wheat from frost I am con-vinced that a good cloud of smoke must have a decided effect on the atmosphere, but to be made a success there are no doubt certain principles to be observed. For instance, it is no use to hang the thermometer against the house even on the north side, and watch it so as to know when it is time to light the smudges, the house is warmer than the atmosphere, and the crop may be frozen before the fires are lit. Then it does not do to hang it on a fence or anything near the house, for the buildings are always on high land, sometimes the highest point on the farm, and it is the low land that freezes first. The thermometer should be kept where the land is lowest, and the smudges started while the temperature is still several degrees above freezing, as it is much easier to keep up the temperature than to raise it after it is down. Though I believe smudging may often save a crop, still I think in this case as well as in all others "prevention is better than cure," and that it will be much better for the country if farmers endeavored in every available way to hasten the ripening of the wheat, and so do away as much as possible with the necessity of smudging.

Manitoba Poultry Notes.

THE PROVINCIAL ASSOCIATION.

At a meeting of the directors of the Manitoba Poultry Association, held April 14th in the Foultry Association, held April 14th in the offices of the FARMER'S ADVOCATE, Winnipeg, Mr. H. A. Chadwick, President, in the chair, Mr. Wm. Thompson was appointed secretary *protem.* to fill the vacancy occasioned by the death of the late Secretary J. W. Bartlett. On motion of John Hettle, M. P. P., seconded by Alex. Lawrence, M. P. P., the President was appointed to represent the Association on the appointed to represent the Association on the board of the Winnipeg Industrial Exhibition, Mr. Hettle explaining that the Act was being amended to provide for such representation.

The question of incorporation was discussed and deferred till another meeting. Several present spoke in favor of holding a poultry show next winter, and steps are likely to be taken at the annual meeting of the Manitoba Association next summer with that object in view.

Royal Hotel, Brandon, on the evening of Saturday, April 2nd. It was resolved that they should undertake the management of the poultry classes at the comming summer fair, in accordance with a wish expressed by the agricultural society. The President, Vice-President and Secretary were appointed a committee of management.

A decided interest was evinced in this department last year, and the poultrymen will endeavor to make it a thorough success at the coming show. One hundred and fifty dollars will be offered in prizes for poultry.

The Outlook for Fruit in Manitoba. BY THOMAS FRANKLIN, STONEWALL.

SIR,—As many of your readers are aware of the effort in fruit raising here, and as I am greatly indebted to Prof. Saunders, Mr. Gibb and others for courtesies in furnishing me with trees, shrubs, etc., for experimental work, and my time is so taken up that I cannot send separate reports to each kind friend, allow me to give a few jottings, which I trust will be interesting to your readers.

The Saskatoon (June berry) is very abundant. This berry is worthy of propagation. It grows here a good deal larger than the Black Naples currant, and makes nice preserves. Wild plums and cherries (red and choke) are also very plentiful, but I write to tell you of cultivated fruits. Strawberries. -- The Cresent, Downing, Glendale, Champion, Wilson and Jessie have borne In novelties, I had one specimen of the well. Britain, five inches in circumference, a little

larger than the Jessie. *Currants.*—The Fay's Prolific bore its second crop, and finer berries I have never seen. The White Grape was more abundant and second in size. Red Dutch, Victoria, Holland, Black Naples, Lee's Prolific and Stewart's Seedling, all bore a fair crop of fine fruit.

Gooseberries.-Houghton and Downing were loaded. Smith's Improved and two or three other varieties mildewed somewhat, but had a light crop.

Raspberries .- Turner succeeds without protection. Cuthbert, Philadelphia and Golden Queen, with protection are doing pretty well. A blackcap (perhaps the Doolittle) is bearing fairly.

Blackberries .- Ancient Britain, Snider and Taylor (protected in winter) are fruiting nicely. The Windom and two or three other dewberries are yielding their first fruits of fine luscious berries.

-I have collected some forty kinds of Northwest sorts, from Minnesota, Iowa and Wisconsin, and this year have five kinds carrying specimens, viz., De Soto, Speer, Sendloff's Seedling, Newton Egg and one without name. Cherries .- Prof. Budd's Ostheim blossomed and formed fruit, but fruit has dropped. Prof. Saunders kindly sent me two of the Koslov Morello, which are doing well. He also sent me one Besarabian, which has made a good growth. Pears.-The Russian Gakovska froze out last winter. I have received from Ottawa twentyfive from Russian seed, which may do better. Apples.—Of some eighty varieties of apples and crabs the following after three years' test seem the most promising :-Gideon's Seedlings, Pearce's Seedlings, Russian Liebz, Rubetz Naliv, Hibernal, Antonovka, Red Cheeked, Red Repka, Istovka, Ostrakoff. Some of these look like blossoming next season. In crabs and hybrids, Whitney No. 20, Transcendent Dartts, Gibb, Hyslop, seem among the most promising. Forest Trees and Ornamentals.—The Manitoba White Elm, Ash, Soft Maple and Box Elder are succeeding very well; Butternut I am hoping to raise; the Persian Lilac flowered abundantly; Spiræa Ballardi and another are now in blossom, so is an Althea. Tamarax Armurensis has beautiful foliage, but I doubt whether it will flower. The John Hopper, planted outside, had one beautiful rose ; Caragana, or Siberian Pea, after three years' trial without injury, promises well for an ornamental hedge plant. The Russian poplars, notably Certinensis, Petroviki, Laurifolia and Boleana are an acquisition and are doing well. Salix Fragilis and Aurea are beautiful trees.

Farmers' Institute Meetings. CARTIER ELECTORAL DIVISION.

A farmers' institute for the electoral division of Cartier was successfully organized on Monday, April 11th, in the cheese factory on the farm of Mr. Robert Grant, sec. 15, 7-3, with a member-

ship of twenty-seven. Mr. Wm. Wallace, of Ninerville, was called to the chair, and after explaining the object of the meeting, called on Mr. George H. Greig, of Otterbourne, who reported that he had secured more than the requisite number of signers to the petition for the formation of an institute under the Provincial Act; that the Department of Agriculture had announced the meeting in the Gazette, also fixing that date and place of meeting.

Mr. Thompson was appointed scrutineer, and the election of officers by ballot resulted as fol-lows: President, Wm. Wallace; Vice-President, Robert Grant; Sec.-Treas., George H. Greig; Directors, S. Cranston, Robert W. Greig, John Harrison, J. Wade, H. Street and J. Wittick; Auditors, J. McVicar, jr., and A. McVicar.

The proposed constitution, drafted by the Central Farmers' Institute was considered clause by clause and adopted as the constitution of this institute

An address followed by Mr. Thompson, of the FARMER'S ADVOCATE, on "the work of farmers"

institutes and what they may be expected to do' Votes of thanks were passed to the speaker for his address, and to Mr. Grant for the use of the

room in which the meeting was held. It was decided that the next meeting be held at Ninerville, on May 24th, at 2 p.m.; pro-gramme to be arranged by the Board of Directors.

SOURIS ELECTORAL DIVISION INSTITUTE. The Souris Electoral Division Farmers' Institute was organized at Melita on March 30th with a membership of 40, and with the prospects of a good many more. "We should have a of a good many more. "We should have a large institute here," writes a correspondent of the ADVOCATE, "it being the garden of Mani-toba and settled with enterprising farmers." Officers were elected as follows:--President, Jahr S. Thomson Waskada, Vice, President, John S. Thomson, Waskada; Vice-President, Dr. A. M. Livingston, Melita; Secy.-Treas., A. D. Wheeler, Melita.

A resolution was passed unanimously endors-ing the action of the Central Farmers' Institute in asking the Dominion Government to remove the duty from binding twine.

The next meeting will be held in June, when it is expected that Mr. Bedford of the Brandon Experimental Farm will be present.

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The President reported that the Brandon Branch Association was in a flourishing condition and were taking over the entire management of the poultry department of the Brandon Summer Fair.

WINNIPEG ASSOCIATION.

At a recent meeting of the Winnipeg Poultry Association the Industrial Exhibition prize list was carefully revised, and the President was authorized to ask the Exhibition Board for certain improvements to the poultry building.

The Secretary, Mr. Blackhall, reported that most of the Winnipeg poultrymen were importing heavily new stock this season for the improvement of their breeding pens.

The following resolution, moved by Mr. Thompson of the FARMER'S ADVOCATE, seconded by Mr. A. Monkman, and supported by several of those

A. Monkman, and supported by several of those present, was unanimously adopted :---"That we, the members of the Winnipeg Poultry Association hereby play e on record an expression of deep regret at the sudden and lamentable decrease of the former secretary and vice-president of this organization, Mr. J. W. Bartlett, who was called to bis reward on the morning of Sunday, April 3rd, 1892, in the midst of an active, useful and promising career. A true friend of the poultry and agricul-tural interests of this province generally, we shall long realize the benefits of his efforts on our behalf; but above and beyond this we mourn his loss as a man of sterling integrity, who, under all circum-stances, had endeared himself to us as a frank and faithful friend. To his sorrowing w dow and family we extend our warmest sympathy and con-dolence at this trying hour of bereavement."

The Secretary was directed to have the resolution engrossed and forwarded to Mrs. Bartlett.

BRANDON POULTRYMEN.

A meeeting of the Brandon Branch of the Manitoba Poultry Association was held at the hear from any of your readers on the subject.

I would like to get promising varieties of gooseberries for testing, and would be glad to BRANDON INSTITUTE.

At a recent meeting, Vice-President Nichol in the chair, Mr. Van Tassel gave an account of his winter's work as emigration agent in Ontario, after which Mr. Thompson, of the FARMER'S ADVOCATE, read a paper on the Farmers' Institute system, methods of carrying it on and the results that should be expected therefrom. On motion of Fred. Smith, the desirability of establishing a free market was urged upon the Brandon City Council. The proposed independ-ent binder twine factory at Winnipeg was favorably discussed, and Messrs. Nichol and Leech, Secy., were authorized to see that farmers had a controlling interest before any stock subscribed by members of the institute was paid over to the company.

At a subsequent meeting the following was

PORTAGE LA PRAIRIE.

At the concluding meeting of the Portage la Prairie Farmers' Institute, until after seeding, Mr. J. A. Ingram, in an able paper, contrasted an agricultural with a professional life, the showing being decidedly in favor of the farmers.

On motion of Dr. J. G. Rutherford, seconded by Prof. J. B. Caldwell, the following resolution was adopted :

was adopted :----"That the members of this institute, having heard with deep sorrow of the sad and untimely death of Mr. J. W. Bartlett, Secretary of the Central Insti-tute, profer to his bereaved wife and family their most sincere and heartfelt sympathy in the heavy and irreparable loss which has befallen them."

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THE FARMER'S ADVOCATE.

the soil to act on it before it can be taken up by the vines. Where to get your vines and how to get them is often a trouble, or, as is often the case, exorbitant prices are often paid to some agent. Many agents are all right and may be bought of; others buy cull stock and label to suit their orders, and when your fruit comes to bear you find you have not got what you paid for. Be careful of whom you buy. There are many good reliable firms in Canada. Send to some of the firms advertised in this journal or the Horticulturist and you will get well treated, as I known them to be honest nurserymen; but for those of you who have a good local nurseryman you may do as well or better with him. If you are likely to have trouble from mice when your vines are laid down and covered for winter, take some arsenic or paris green, cornmeal and grease, and mix up like a cake, thick, put in some tin cans so that cats, dogs or chickens cannot get it, and put a few of these under your vines, and if properly mixed you will have no trouble with mice peeling your vines. Now, farmers if you have no grapes growing, as soon as you read this look up some advertisements of nurserymen in these columns, and send them a post card asking for their free price list of trees and vines, pick out what you want, have it sent by mail or express, and start growing grapes at once for your own use, and if you follow my advice you will not be sorry.

Top Grafting Fruit Trees.

BY THOMAS J. FAIR, FRANKFORD, ONT.

In this I do not intend to give instruction on the process of grafting, for Mr. Coston's paper in March number' contains full directions for successful grafting, but would say that when the grafting has been completed the work will be thrown away if the grafts are not looked after the remainder of the season. As well might a man plant fruit trees and then say I have done my part, take care of yourselves, as to set grafts and not look after them. A tree, if large, should be prepared for grafting, if pruning has been neglected, by cutting nearly all the small branches from the limb you intend to top graft a year before you perform the operation, for if too many branches are left below the scions when set, they will take too much of the flowing sap and not enough will reach the scion to give It a good start. After the gr gin to grow go through the orchard and where the scions are not making a vigorous growth, remove all the small branches below grafts; this will give to the graft a large part of the nutriment that went to these limbs; but if the grafts are making too much growth they may be pinched in about the middle of August, and remove the branches be-low the grafts the following spring. Always remember to keep the end of the limb where grafted covered with wax to exclude wet and prevent decay, and keep all succors rubbed off below grafts, which must be pruned judiciously, if you want fruit. One of the worst enemies to grafts is the tent-caterpillar which seems to have a great liking for their tender leaves, and will ruin your work if left in the orchard. The most effective way I have tried to destroy them, is to take one quart of soft soap, put it in a large pail and fill nearly full of warm water, then take a light cedar pole ten or twelve feet long, and the size of a stiff fish pole ; on the end wind a coarse, wollen cloth, six or eight inches wide around small end and tie tightly in centre with a strong cord, and you are ready to battle with one of the worst enemies of the orchard. Go through the orchard early in the morning while the worms are in their tent, wet the cloth on pole in the soap and water, and rub out the nests of worms, which may be plainly seen when the leaves are very small. The alkali in the soap is death to every worm it touches whether small or large. The cheapest and best grafting wax is made from one pint pure raw linseed oil, four and a half pounds resin, and one pound beeswax, melt all together over a slow fire, and when all is melted pour into a tub of cold water, and when cool thoroughly work ; it will not stick to hands if kept wet with cold water.

Oak Lake Jottings.

A few miles south of Oak Lake the ADVOCATE representative was cordially entertained by Mr. L. O. Lemieux, a former C. P. R. locomotive engineer, the vicissitudes of which life caused him for health's sake to adopt the avocation of farming, in which he is proving successful. He pursues the line of mixed farming to a certain extent, keeping pure-bred Leicester sheep, Berkshire swine and a herd of grade cows, which he is crossing with a Holstein bull, to improve their dairy qualities. He makes a speciality of butter dairying, finding that product more profitable than beef, always realizing for his butter 25 and 30 cents per pound. He grows Red Fyfe wheat, and showed the writer a beautiful sample of American Banner oats. Mr. Lemieux is also a breeder of pure bred Collie dogs of choice blood.

Half an hour's drive brought us to the resid-ence of Mr. A. Malcolm, who is farming on a large scale, as might be inferred from the fact that last year he grew 3,000 bushels of oats, 4,700 of Red Fyfe wheat and 1,100 of Ladoga, the latter from less than 40 acres. Mr. Malcolm has had four years' experience with Ladoga wheat, and he is highly pleased with the results, finding it, he claims, about 10 days earlier in ripening than Red Fyfe; in fact, his faith in it was such as to decide him to sow one-half his wheat area this season with that variety. He is testing a new sort, "Magyar," having grown from a single grain three bushels in three years. Besides a large and comfortable dwelling, Mr. Malcolm has good outbuildings, and at the head of his herd of cattle an excellent Shorthorn bull, Grand Duke of Beresford =12504=, bred by Mr. John E. Smith, of Brandon, and three years old on May 5th.

Mr. Elder has cows to supply the wants of the family in dairy products, pure-bred Berkshires, and a flock of about 20 sheep, seven being pure "Shrops," purchased from Mr. W. S. Hawkshaw, of Glanworth (near London Ont.), one of the leading importers and breeders of that province. The rest of the flock are grade "Downs." Poultry are also kept and well cared for.

Just southwest of the town Mr. H. W. Dayton, formerly of Kildonan, is running a large farm, but, as our readers are aware, continues to make a speciality of poultry, for which his place is peculiarly adapted. A beautiful little stream at the foot of a wooded slope, containing plenty of sand and gravel, passes within a few rods of the house and outbuildings. The bloom on his Plymouth Rocks and Light Brahams, and the excellent condition of his Bronze Turkeys, Pekin Ducks and Toulouse Geese, bespake how well they were thriving under Virden conditions.

Mr. J. H. Proctor, whose fine stone stables are within the the town limits, is devoting considerable attention to Shorthorn cattle and Shropshire sheep, having fourteen pure-blooded ewes and a large number of grades. His herd of Shorthorns—not a large one—is headed by Prince of Binscarth, a bull of massive proportions, yet quite active.

"Boss Hill Farm," owned by Messrs. Bounerie & Routledge, also proprietors of the "Elphinstone Farm," Newdale, constitutes one of the attractions of Virden suburbs, its fine buildings, large windmill and tree-skirted avenue catching the eye of everyday travellers over the C. P. R. They are breeding saddle, Hackney and carriage horses, the principal stallion on the farm being the Dean Swift, a dark chestnut Thoroughbred, whose large, stylish colts bear testimony to his qualities as a sire. Another Thoroughbred, Bushfield, stands at Newdale. A few Shorthorns are kept, the bulls in service being Bachelor and Lord Frank of Boss Hill. The firm are now branching out along another line of live stock husbandry, viz., sheep rearing, by importing from Ontario about 400 ewes, thirty of which are thoroughbred Shropshires headed by eight or nine imported rams. A portion of the flock will remain at Virden, the rest going to Newdale.

Those who leave Virden without making a call at "Gopher Creek Farm," the property of Mr. Wm. Stephen, will miss seeing one of the most picturesque and well managed farms in the

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porium" for feed. More may be heard about it in the future.

A DAY AT VIRDEN.

Notwithstanding a visitation of fire Virden is keeping up its record as one of the most progressive and prosperous towns of Manitoba: Its people are of that stamp, and it is backed up by a splendid agricultural country, where the farmers pride themselves on growing prizewinning grain and in an increasing number of cases rearing superior live stock. For example, "Hensall Farm," the home of Mr. James Elder, with whose trusty words of counsel FARMER'S ADVOCATE readers are familiar from time to time, ranks in the locality something in the nature of "a model farm," with its well-ordered household, substantial stables resting on solid stone walls, good fencing; broad, carefully pruned windbreaks of maples, etc., at even distances apart in straight rows, whose five years growth has made them a thing of beauty, as well as a protection to the fruit garden, house and outbuildings; fields arranged for economy of time and labor in cultivation, implements in good repair, grain all ready for seeding weeks before the time, and a little shop in which carpentering and blacksmith's jobs are attended to at the proper moment, thus saving breakages and serious losses. Speaking of shelter belts, Mr. Elder last season transplanted an additional lot of 600, out of which only three were lost. "Hensall Farm" is a standing protest against slip-shod farming in all its forms, right down to the saving of manure, a yard for which is specially provided with a water supply in the centre, so that the pile can be wetted to hasten fermentation and rotting, before application to the land. Apart from a stable of useful horses,

province, and one in a high state of cultivation. The soil is lighter than in many localities. He has strong faith in the virtue of liberal applications of manure, not only to preserve the soil from impoverishment, but to hasten the ripening of grain, and has no hesitation in predicting that prairie soils continuously cropped will become less productive, and take longer to mature the grain, causing greater risk from frest before ripening. He spreads the manure upon the land practically as fast as it is made in winter, dragging it with a light harrow in spring, and ploughing it in rather deeply. The "bugbear" with many over this plan is that of weed seeds, but if the grain fodder and straw are free from these pests there will be no foul seeds to carry to the field. It would be an improvement where this plan is pursued, no doubt, to cut the straw used for bedding. But let farmers beware of weedy town-made stable manure. Besides horses and a herd of cattle with a Shorthorn bull, Grand Master, at their head, Mr. Stephen has a small flock of sheep that exhibit the evidences of intelligent care and treatment. A hospitable, plain-spoken, earnest man, there is about what he says, and all his methods, the idea of permanence and thrift, characteristic of a thorough going Old Country trained farmer, who sets a mark for the guidance of others, and aims to leave his fields better than he finds

Saskatoon Fall Fair.

The seventh annual exhibition of the Central Saskatchewan Agricultural Society will be held at Saskatoon on Wednesday and Thursday, the 5th and 6th of October, 1892. Mr. David Lusk is the President and Mr. Thos. Copeland Sec-Treas.

THE FARMER'S ADVOCATE.

Veterinary Questions.

ANSWERED BY W. A. DUNBAR, V. S., WINNIPEG.

"MILK FEVER" AND GLANDERS. 1. Will you please give some information concerning cows and milk fever—the symptoms and treatment required. 2. How should a farmer treat his horses when an outbreak of glanders is

in the district ? New SUBSCRIBER, Saltcoats. 1. Parturient apoplexy (often, but erroneously, called "milk fever") is an affection peculiar to the cow, and is connected with the period of calving. It usually sets in from twelve to fortyeight hours after parturition, but may occur after six or even eight days. Its attack is sudden, the premonitory symptoms being often unobserved. There is much diversity of opinion regarding the precise nature of this disease, but it is not expedient that I should at present mention any of the pathological theories ad-vanced respecting it. Cows in plethoric condition with large secretion of milk, and from five to nine years old, are most subject to this disease. It rarely attacks a cow until after the third calving, and very seldom after the seventh. The symptoms are loss of appetite and suspension of rumination; rigors or shivering are sometimes observed; the secretion of milk is always partially, and often totally arrested ; the pulse may be nominal; breathing at first accelerat-ed, but in a later stage slow and stertorious; uneasy movements of the hind limbs; staggering gait, most noticeable behind. This symptom of paralysis rapidly increases until the ability to stand is completely lost. When the animal is down and unable to rise, it either lies on the brisket with head turned to shoulder or flank, or on its side with head and neck stretched. At times the animal will dash its head about in a violent and spasmodic manner. The eyes are staring and gradually become dim and insensible to touch. The peristaltic motion of the bowels ceases, and, as a consequence, obstinate constipation supervenes; the secretion of urine is scanty the tongue becomes paralyzed, and the power of deglutition (swallowing) is partially, or alto-gether lost. As the disease generally runs its course in from twenty four to fifty-six hours, the treatment should be prompt and active. In the first stage, before the animal goes down, the abstraction of five or six quarts of blood from the gular vein has often a beneficial effect following stimulative and purgative dose should immediately be administered : Sulphate of magnesia, 20 ounces; croton oil, 25 drops; fluid ext. nux vomica, half ounce ; ginger pulv., half ounce; aromatic spirits of ammonia, two ounces treacle, one pint. Dissolve all in one quart of hot ale, and give in one dose. As free action of the bowels is of much importance enemas of warm water containing a few ounces of raw lin-seed oil and two ounces of glycerine should be given every two hours until the bowels respond. The animal should be placed in a roomy, warm, well ventilated and well bedded loose box. If unable to rise it should be turned from one side to the other two or three times a day, and kept with bundles of straw in as comfortable a position as possible. The urine should be drawn off with catheter three times in twenty-four hours. A strong stimulating liniment, mustard or hot water, should be applied to the back, especially over the loins, and a bag containing chopped ice should be applied to the occiput and forehead. The following drench should be given every three hours until six or seven doses are given : Carbonate of ammonia, two drachms; fluid extract of nux vomica, one drachm; nitrous ether, 11 ounces; treacle, half pint. Dissolve in one pint of hot water. Great caution should be observed in the administration of medicine by the mouth, after the tongue and pharynx has become to a large extent paralyzed. Although the prognosis of this disease has a decided leaning to the prognosis favorable, much of the fatality may be averted by timely, active and properly directed remedial measures. When possible the case should be put in the hands of a properly qualified veterinarian. In addition to the treatment I have mentioned, I would advise fomenting the udder with warm water, and drawing the teats three

or four times a day. This disease may be to a considerable extent prevented by withholding from cows, especially from those disposed to plethora, for five or six weeks before calving, food of a stimulating and too nutritive kind, and by giving instead that which is cooling and easily digested. A little daily exercise during the last few weeks of pregnancy has also a tendency to ward off an attack of this much dreaded disease. This disease has been known to manifest itself, although very rarely, previous to calving, and even during the act of parturition, and Fleming mentions it as having been noticed in the ox, but I have never seen a case of it in the bovine male.

2. Cleanse well the floor of your stable, whitewash the walls, stalls and mangers with a wash made of water and quicklime, and into each pailful put half a pound chlorid of lime. Disinfect your stable at least once a week by swabbing it with carbolic acid, four ounces to two gallons of water. See that your horses are kept in good condition, and keep them at a safe distance from infected and suspected animals and places. Allow no strange horses to go into your stable without carefully inspecting them. GARGET.

Would you kindly give us the cause of cows having garget, and the best way to cure it? T. G. BLIGH, Millwood, Man.

The causes of mammitis (garget) are various, chief among which are overheating of the system, exposure to cold, lying upon cold ground or wet pasture soon after calving, bites of insects, wounds, bruises and other injuries, neglect in milking, etc., are productive of this disorder. Cows in plethoric condition, with an abundant secretion of the lacteal fluid, are subject to mammitis. The treatment is consti-tutional and local. Put the cow in a dry and warm stall; give a good bed; give the following purgative :- Epsom salts, one pound; nitrate of ootass and pulverized ginger, of each half ounce treacle, one pound ; warm ale, one quart ; foment the udder with warm water three times a day, and for an hour each time. After each fomentation apply, by rubbing well into the affected parts of the udder, the following liniment :- Raw linseed oil, 21 ounces; alcohol, 2 ounces; fluid extract of belladonna, $1\frac{1}{2}$ ounce. Draw the teats four times a day, and if they are very sore use milking tube. If the case is a very severe one support the udder with a bandage with hons and noultice linsee abscesses form they should be opened and dressed daily with weak carbolic acid lotion-one part of the acid to thirty of water. Mammitis is often a very intractable and destructive disorder, and whenever practicable the services of a veterinary surgeon should be secured.

The feeding of raw wheat, largely or exclusively, especially if frozen, would very probably produce the effect you have mentioned. Raw wheat, unless fed in moderate quantity and alternately with food of coarser quality, is not a safe diet for any of the domesticated animals. Boiled or steamed wheat is safe and proper food. A change of food is advisable, if it is sufficiently nutritive and digestible.

AIR UNDER SKIN.

Have a young cow that got hooked behind right foreleg by another, letting air under the skin. This air is spreading all over her side. 1. Are serious consequences likely to follow its presence there? 2. What treatment can be given? ORRWOLD.

No serious results are to be apprehended from the presence of air in the connective tissue. By fomenting the parts well once or twice a day with warm water, and rubbing towards the wound the emphysematous condition will gradually disappear. The wound, however, if deep, will require special attention, especially if much inflammatory action supervenes, which is indicated by pain, heat and swelling. Keep the mouth of the wound open, enlarge it if necessary. Foment frequently and freely with warm water, and inject twice a day a sufficient quantity of the following lotion : Hydrat perchlor., one drachm ; muriatic acid, two drachms; water, one quart.

Spring Fair at Shoal Lake.

The fifth annual horse fair was held at Shoal Lake on April 19th. The attendance was smaller than in previous years, but the quality of the stock surpassed that of any other season.

smaller than in previous years, but the quanty of the stock surpassed that of any other season. In the heavy draught class the judges had no hesitation in awarding the first prize to McGregor, No. 1487, owned by Menzie Bros., dam by Lily of Auldmuir, sire Auldmuir, No. 4230. The second prize was justly awarded to Thos. Young for his Broughton Prince, sire Prince 5253, its dam Broughton Lizzie, No. 5435. This fine stallion was bred by Alex. Hannay, Sorbie, Wigtownshire, Scotland. In the agricultural class the horses were in

In the agricultural class the horses were in exceptionally fine condition, and created a large amount of attraction to the lookers on. First prize, Early Morn 4364, sire Lancaster (2607), dam by William the Conqueror (2345). Early Morn's pedigree is one of the finest. His sire took the first prize at Thorne in 1851, and his

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FEEDING TURNIPS AND POTATOES.

Please let me know through your valuable paper if turnips and potatoes are suitable feed for idle horses in winter time. If so, how often should they be fed ? Also which of the two would you most recommend for the use of the horse where carrots are not raised ? A. M., Campbellville, Man.

The Swedish turnip is more easily digested, but is not quite so nutritious as the potato. As food for the horse, the moderate use of either of these roots is safe and advantageous. They should be fed once a day only, and night is the most proper time. Both turnips and potatoes should be sliced, and are better, when fed, to be mixed with chopped straw. Eight pounds of potatoes or ten pounds of turnips may be given at each feed, but if the bowels become too laxative the quantity should be lessened. These roots when cooked by steaming can be fed more liberally and to better advantage than when fed in the raw state.

A "GIDDY" SOW.

I have a sow about one year old. About three months ago, a short time after being served, she seemed to be suffering from spells of giddiness, sometimes much worse than others, but bothered with it very constantly. Would feeding dry wheat cause this ? Is feeding dry grain suitable for pig food, or should it be changed at times to other feed and boiled ? Kindly answer through the columns of your valuable paper, and oblige, J. B. LOKIER, Dugald, Man.

dam the first at Stockport, Eng., in 1873, and first at Manchester, Eng., in 1874, and three other firsts in other large English towns. He was bred by Wm. Hurst, Stratfield, Woodhouse, Doncaster, and is now the property of Gardiner Bros. The second prize was given to Grand Material (1814), bred by Jno. Morden, Bowville, Ont., and owned by Wm. Chapel, Shoal Lake.

The third and last class was the roadsters. First prize, Royal Grit, sire Royal Revenge, bred by Jno. King, Bayfield, Ont., and owned by Mr King, of Shoal Lake. Second prize was awarded to the fine gray stallion Arrigo, sire a French horse. He was bred by Burton Levens, Owen Sound, Ont., and now owned by Jas. Aylsworth, Birtle, Man.

Some of the breeders are proposing to unite with Strathclair and hold one fair representing all the country which these two towns take in, and to hold it at Strathclair one year and Shoal Lake the next. This district can boast of a class of horses second to none in Manitoba, and all those shown have left colts that are a tribute to the individuality and branding qualities of their sires.

Winnipeg Industrial Exhibition.

Arrangements for the holding of the second Winnipeg Industrial Exhibition, July 25-30, are progressing rapidly and favorably, all the committees in charge of the various departments being energetically at work. The cash and special premiums enumerated in the prize list constitute a long and handsome array of attractions to intending competitors. Numerous additions and improvements have been made to last year's list. The board of directors and Secretary Strachan are sparing no effort to make the show a grand success.

THE FARMER'S ADVOCATE.

Agricultural Legislation

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At the recent session of the Manitoba Legislature a great deal of attention was paid to legislation affecting the agricultural interests of the province, though no more than is warranted in a country where farming is of such paramount importance, and on the prosperity of which the progress of the country is so largely dependent. Among the more special an important enactments were the following :

The Farmers' Institute Act was amended, whereby the Minister of Agriculture may employ a portion of the Legislative grant for the promotion of the objects and aims of the Cen-tral Institute. For carrying on the work of the Central and local institutes the sum of \$1,500 was placed in the estimates. Institutes may be organized without regard to the territorial limits of electoral divisions, and meetings of local institutes may be at any place decided on by a majority of members. The action of the government in liberally aiding this important work will be heartily approved.

Agricultural Societies. - Existing societies formed under the old electoral division Agricul tural Societies' Act, are continued without regard to any former or existing territorial limits of electoral divisions, and new ones may be formed on petition of 50 persons who are not members of any existing agricultural society.

Noxious Weeds .- An increased grant was made for inspection under the Act for the eradication of noxious weeds, necessitated by the rapid spread of certain weeds in various parts of the province. Municipalities cannot be too rigid in enforcing provisions for the destruction of weeds. Self interest, however, should prompt every farmer to fight the ingress of weeds, irrespective of any legal "pains and penalties.

Provincial Fair Aided.-The sum of \$7,500 was voted, in addition to the \$7,500 voted in 1891, towards the Winnipeg Exhibition.

The Western Agricultural and Arts Association has been incorporated for its object the organizing, establishing and holding an annual Agri-cultural Industrial and Arts Exhibition at the city of Brandon, and for other purposes. The act of Incorporation is very similar to that formed in 1891 to incorporate the Winnipeg Industrial Association. Mr. H C. Graham, M. P. P. for South Brandon, was the promoter of the Bill. It is said to be the intention of the government to grant substantial assistance as soon as the

Farm are carried on, and which are now so credit able, and doing such good service in that province.

Seed Grain Exchange.-The sum of \$300 was placed in the estimates for carrying on the Seed Grain Exchange, the nature and objects of which were set forth in the FARMER'S ADVOCATE for April. In brief, the design is to provide for the free carriage of good seed wheat between different districts in Manitoba.

Other Grants by the Legislature to the Department of Agriculture and Immigration indicate that, as in the past, a vigorous and progressive policy along these lines is contemplated with, however, a judicious regard to economy.

Race Track Events.

At Winnipeg on June 30th, July 1st and 2nd, Manitoba Turf Club and the Horse Breeders' Association of Manitoba and the Northwest Territories will hold races in conjunction, something over \$4,000 to be offered in prizes. Portage la Prairie will follow with races on July 7th and 8th; Morden 14th and 15th; and it is also intended to give an all-age stake running, and Industrial Exhibition. Mr. J. A. Moore is sec-retary of the Turf Club, and W. J. Hinman, V. S., of the Horse Breeders' Association.

The Mulberry.

To the Editor of the FARMER'S ADVOCATE.

SIR,-My attention has just been directed to a note in the January number of the ADVOCATE on the "Mulberry as a Windbreak," by W. S. H. This was called forth by an article over my signa-ture in your issue of December, '91, on 'Poplars and Willows for Manitoba and the Northwest." In considering varieties of forest and other trees suitable for Manitoba and the Northwest, hardiness is the first essential, as pointed out by your correspondent. This is just where the Rus-sian Mulberry fails. I had expected it would succeed at least in Southern Manitoba, and to test the matter, several thousand were distributed, with other forest tree seedlings, in the spring of 1890. My correspondence shows that it was among the first to be cut down with autumn frosts. and I have yet to learn of a locality within the region referred to where it was not killed to the ground or snow line. The seedling trees were obtained direct from Mennonite settlements in Nebraska where the original stock was introduced, and is now growing. At Ottawa it kills back annually, As a hedge plant it bear ing well, and makes a dense barrier in which form it stands the winter fairly well. The largest trees I know of in this country do not exceed twenty feet in height planted about as many years ago. Being propagated, the fruit varies from that which is entirely worthless to that which under certain circumstances might be relished. On the whole we have more desirable trees, and many far better adapted to northern Yours truly, JOHN CRAIG, localities.

Assafætida for Abortion.

MAY, 1892

Mr. G. W. Farlee, President of the American Jersey Cattle Club, writes as follows on the use of assafætida for abortion in cows :

"I have recently treated a neighbor's Jersey cow that was an habitual aborter, and succeeded in getting her to carry her calf for the full time. It was apparently a desperate case, as she had lost three calves in succession, when seven months pregnant; but as her milk is unusually rich, even for a Jersey, her owner was naturally anxious to have a calf from her. It is often difficult to get an aborting cow in calf, but this cow always held to the first service.

"The treatment was addressed to quieting the nervous system of the cow. Assafatida is supposed to be an excellent drug for the purpose, so I prescribed a tablespoonful of the gum, as finely pulverized as possible, mixed with a cut mess, twice a day, beginning the treatment a few days before her usual time of aborting, and continu-ing it daily for a month; after that one tablespoonful a day until the full period of gestation was accomplished. Should symptoms of parturition appear, then the daily dose was to be im mediately increased to four tablespoofuls.

"The drug produced the desired condition of composure; in fact, the owner says she was a nervous cow, but her disposition was entirely changed. A capable physician advised me that it was a safe drug to give in large doses. Years ago, when I had epidemic abortion in my herd, I used assafeetida with great success, and in one case a cow that had lost two calves carried the entire term, although for the last three weeks of her time parturition seemed imminent daily. During these three weeks we gave her four tablespoonfuls of the gum daily. I had reason to be thankful for the remedy, since the cow in question was Gazella 3rd, which thereafter proved a regular breeder, and made me 751 pounds 6 ounces of butter in a year on moderate dairy rations, and the calf she dropped was Sig-noretta, that gave me 680 pounds 6½ ounces in a year on second calf, an average daily grain ration of less than eight pounds.

"A cow threatened with abortion should be separated from the herd, to secure quiet, and relaxing food withheld, though, of course, her bowels must not be allowed to grow constipated."

Note.-Assafectida is a safe drug to use and would tend to have a soothing effect on the animal, hence its virtue with nervous cows, but in ase of "enidemic abortion micro-organism, what Mr. Farlee claims for it would not be conceded.-ED.

The Insectivorous Birds Act was so amended as to allow wild swans and wild geese to be

shot or exposed for sale at any time. The Winnipeg Industrial Exhibition Act was amended, giving representation on the Board to the Manitoba Poultry Association, instead of the "Southern Manitoba Poultry Association."

The World's Fair.-The sum of \$20,000 was appropriated to provide for an adequate representation of the province of Manitoba at the Industrial Exhibition or World's Fair proposed to be held at the city of Chicago in 1893, beginning on May 1st, and continuing six months. Some difficulty arises in getting separate space allotted for the Province. Under existing regulations Manitoba would have to exhibit with the other Provinces in the space alloted to the Dominion, and in the building to be erected by Federal Authorities. Arrangements may be made so that Manitoba will have space enough allotted to her sole use, so that a suitable building may be erected. The exhibit will be prepared under the direction of a Commissioner, and will include all the main natural and manufactured products of the country. A live stock exhibit is not contemplated, though no doubt the "Studs, Herds and Flocks" of the Prairie Province would make a highly creditable showing among those of other stock reming

Agricultural College .-- Having in view the increasing needs for practical agricultural knowledge as the country grows older and becomes more thickly settled, the Legislature has provided the sum of \$10,000 for the purchase of a suitable site for an agricultural college and farm in connection therewith, along lines similar in the main to those according to which the Ontario Agricultural College and Experimental Experimental Farm, Ottawa

Horse Show at Morden.

The grand turn out of horses at the Morden Spring Show was a credit to the farmers and horsemen of that progressive locality, and with such a choice lot of sires, heavy and light, to select from, the horses of the district should steadily improve. The judges were Messre, Wm. Risk, of Winnipeg; Thos. Gordon, Dakota; and Thos, Dickenson, of Seaforth, Ont. The prize-winners were as follows :-Imported Heavy Draught.-1st, B.C. Parker'

The Times; 2nd, Simon Hunter's Gen. Gourlay Canadian Heavy Draught.-lst, Jas. Morley's Young Wellington; 2nd, J. J. Washington's Pleasant Valley Chief.

General , Purpose. -1st, Robt. Henderson's Black Douglas; 2nd, W. Scott's Louis Napoleon. Carriage Horses.—1st, Thos. Hovey's Young Leopard; 2nd, Henry McElroy's Black Warrier Standard Roadsters.-1st, Dr. McConnell's Golden Bally; 2nd, Dr. Tweed's Cornado.

Roadsters (non-standard) -1st, Geo. Cochrane's Sovereign ; 2nd, W. Steele's Highgate Hambletonian.

The diploma for the best stallion on the ground was a varded to Mr. B. C. Parker's The Times. Pacific Railway.

Alaska-A New Route.

The Canadian Pacific Navigation Co. (Limited) has open up an attractive route for summer tourists. Their handsome Clyde built steamer "Islander" is to make five trips from Victoria and Vancouver, B. C., during the coming season, among the inlets, fiords, etc., of British Colum-bia, to Sitka and the great Muir Glacier. Among other places the steamer will call at Fort Simpson, Metlakahtla, Gardner's Inlet, China Hat, Fort Rupert and Alert Bay, points not visited by other steamers that have hitherto made the trip to Alaska. In this way some of the most magnificent of the coast scenery of British Columbia will be seen, and seen from the deck of a new, well appointed and comfortable steamer. The passage being in smooth water throughout, a great part, indeed, through narrow fiords where a biscuit could be thrown ashore on either side the vessel, the only drawback to such a trip is removed. Passengers so desiring are to be landed at Sitka, and, of course, at any of the points named in British Columbia.

This picturesque and interesting portion of the North American continent is very little known; an excellent description of it was given by Lord Dufferin when he visited it as Govenor-General of Canada ; and the fact that the trip can now be made with every comfort, and at such a reasonable cost (\$95 the return ticket from Victoria or Vancouver) ought to attract a number of those who desire to recruit their health, and at the same time enjoy a novelty in Tickets and berths, etc., for this tour travel. can be obtained from any agent of the Canadian

FARMER'S ADVOCATE. THE

Poultry on the Farm.

BY IDA E. TILSON, WEST SALEM, WIS.

It may be remarked that hens are set like plants, and that eggs especially resemble roses, both being propagated by layers. So it 18 eminently proper the agriculturist and poultryman should be one and the same person. Very early sitters, like tender plants, need to be well covered at night or they will become chilled and exhausted. Their broods, on arriving, should have quite sunny places or a warm room, else they will likewise get chilled, and consequently stunted. Those poulterers who wait till later, sometimes have valuable eggs they desire to save for hatching purposes. Such eggs ought to be collected as soon as laid, or they may lose their vitality, especially if the weather is cold and windy. They can be kept in a fairly cool pantry or moderataly warm cellar, and placed in a box of bran, no two eggs touching, or left a few in a dish, and often turned. Our grand-mothers said, "put the small end down;" philosphers say, "large end down," while Biddy herself leaves eggs side down. Experts claim eggs brought from a distrnce should rest 12 or 24 hours before being set, because an inflammation is created in them by the jar and motion of cars. Some home eggs, presumably the same age, but distinguishable, can be mixed with those purchased, and two or three hens have each a few expensive ones under her, so if there proves to be any poor sitter, not all ventured will be lost. Fresh eggs make stronger chickens and hatch quicker, sometimes in 18 days, while old eggs often require 22. "Like produces like," and probably we wish for neither dwarfs nor giants. Medium-sized eggs best fit cooking rules and shipping crates, and are prophetic of useful fowl in turn. More than once, highpriced sittings sent me have contained flat eggs, a shape which should never be set; it has a much greater liability to break than the round, symmetrical form, that continuous arch which is nature s best construction for resistance to pressure. In cold weather 11 eggs are all a brooder can well manage; if too many are be-neath her, those about the edge get chilled. That boy who set a hen on 50 eggs, just to see her spread herself, was a predestined experimenter and inventor. By the way, it is said that Edison, the electrician, when a child in dresses, was one day found sitting on a nest, tryto hatch its contents. A nest-box can be so narrow and short as to prevent Biddy turning herself around or turning the eggs over without endangering their safety, thus uncomfortably cramping her limbs and proving a very literal sort of straightened cir-A nest too dishing will cause cumstances. heaped and broken eggs, but, of course, a nest box need not be so large nor its filling so flat that eggs will scatter about and get away from the hen. Above all, if a square box is used, let corners be well packed and kept so, otherwissome egg or little chick will get lost down there. The sitter's heat will gradually dissipate a tea-spoon of sulphur put in each nest as made a valuable insecticide. At least twice, for its effects last, but till a new hatch of parasites, the hen should have pyrethrum rubbed or blown into her fluff and head plumage. This kills only those parasites it touches, and does not affect the hard eggs of such pests. If too large and fat mothers are selected, their nests, eggs and chicks naturally will show evidence of some heavy sitting down. It is well to do any necessary cleaning before setting our hens, leav-ing everything reasonably quiet and soothing during incubation, after which dump all fillings out of their nests, wash the latter with kerosene and have a general righting up. The proud young mothers are perfectly willing to have a celebration then. Kerosene, at other times our best insecticide, better be dispensed with during incubation. Should any oil get upon the eggs, it might fatally close their pores, and even its fumes, if strong, are believed to destroy their fertility. Unless quite young fowls are bred from, or very early eggs used, when more cockerels may be expected, the poulterer can usually count on half his chicks for future layers, and plan accordingly.

With twelve white eggs in a downy nest The old hen sits in a box in the shed; And the children, yesterday, stood and guessed Of the hopes that hid in her speckled breast, Of the dreams that dance through her red-crowned head."

Their guesses were all very fanciful, until

Their guesses were all very fanciful, i little three-year-old had her turn. "And what say you, little curly pate? I see a thought in your merry eye." "She fink," says the bright-haired baby Kate, As she lifts the latch of the garden gate, "Vere'll be tickens to skatch for by and by."

How to Keep Your Poultry Healthy.

BY " PLYMOUTH ROCK."

The keeping of poultry is often rendered so uncertain and unsatisfactory at times by the invasion of disease that a great many give up one of the most delightful occupations we are ac-quainted with, just because the hopes of the would-be-fanciers are so often blasted by a lack of knowledge of the rules on which the whole prosperity of the undertaking must eventually The most important two rules in the handling of poultry are, pure, sweet and sound food, and a warm, dry and well ventilated house free from draughts and sudden changes of temperature. To the beginner, and to those who have failed from the inroads of disease to acquire a reasonable degree of success, I would say, listen to my advice, based on years of experience, of failure and success, and you will probably pick up a point or two that will aid you to avoid the many mistakes the writer of this has fallen into. In the first place, no matter what kind of feed you feed, let it be sound and free from mould. It is my firm belief nine-tenths of the diseases of fowls are caused by damaged grain. It is poor policy to buy damaged grain, no matter how cheap; but supposing you have on hand a large quantity of feed that has suffered from mould, and cannot afford to throw it away, this may be rendered more wholesome by pouring scalding hot water over it-remember the water must be scalding hot, if not it will not kill the fungus or mould. Never give your fowls sloppy food ; by doing this your fowls get more water into their crops than nature calls for, and causes trouble. See that they have plenty of pure, sweet water, and give them their food in a dry or crumbly state, and they will of their own accord regulate the supply of water needed. Ground bone, oyster shell, or gravel from uld be kept your fowls at all times. A dust-box filled with clean, dry sand seems to gratify a peculiar desire, but here let me advise you never to give a dust either of coal or wood ashes, as the alkali will get into the feathers and dry out the oil and totally ruin the plumage of the birds. Ventilation-yes, perfect ventilation; and by this I mean ventilation without a draught. How to secure this altogether depends upon your fowl-house, location, etc. I will just say that the best time to admit air is during the middle of the day, when the air is warmest and driest. The third item of importance is light. Let the fowls have as much light and sunshine as possible. The fourth and last essential is, keep your fowls dry. Did you ever notice how uncomfortable and disconsolate a fowl looks when thoroughly wet through ? Do you, reader, suppose they assume this aspect merely for fun, or to impose on the credulity of their owner, and induce him to sympathize with them? No; when a fowl gets fairly wet you can count on loss to yourself. My firm conviction, derived from experience and observation, is this: That fowls or chicks at all times, with probably the exception of the summer months, provided we have no cold rains, be kept dry as possible. Many of the diseases of poultry come from exposure to cold and wet; and if any one can prove to me that a fowl thoroughly wet through, and standing on one leg on the lee side of a barbed wire fence, with its tail virtually between its legs, and the rain falling at the rate of a gallon to the square inch every minute, is improved either in health or looks, or egg pro-ducing qualities, I will submit, and apologize, and ask forgiveness for advancing a theory so utterly opposed to the practice and precepts of a large number of our so-called practical farmers and haphazard poultry breeders.

Agricultural Exhibitions.

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Big Wheat Yields at Rathwell.

BY GEORGE FORBES, RATHWELL, MAN.

I see in the April number of the ADVOCATE a request re large yields of wheat. In 1887 we had sixteen acres of wheat that gave $57\frac{1}{2}$ of No. 1. hard, and it was allowed by all that saw it that there were over three bushels left on the ground, it being badly tangled and rather ripe, and shelled out in cutting. I believe that there is plenty of land in Manitoba that will, once in a while under favorable circumstances, yield 60 bushels, and even more. The above was the fourth crop of wheat on the same field summerfallowed by one ploughing in 1886, grown on my farm at Rathwell. In this vicinity 50 bushels per acre has been raised by several parties in different years, but I do not wonder at some having doubts that never saw such yields. I did not think them possible till I saw this.

Minnie May's Dep't.

MY DEAR NIECES :--

So many of our occupations lie out of doors this lovely May weather that we should be properly equipped for them. A woman's good looks depend so much upon the skin and complexion, she should not think any labor lost that is bestowed in the proper care of them. Many of my girls are engaged in such suitable and profitable industries as poultry raising, bee-keeping, flowers, fruit, and even stock farming, that they must of necessity be out of doors nearly all the time ; but let us not forget to try and preserve our fair looks just as long as we can. Nothing can be an excuse for neglecting them. These occupations for women, so far from being unsuitable, are some of the most life-giving pursuits, and instead of detracting from her good looks should make her healthier and happier. Do not think any nasty mixtures applied to the face can improve the complexion : there must be sound health and the roses and lilies will grow. Before you go to your work in the morning, dress for it, as you would dress for anything else. A broad brimmed hat should be worn always when in the sun and air, tied under the chin, the ties attached to the outer edge, thus forming a complete protection. Who has not suffered the discomfort of a sunburnt face ?the smarting and swollen feeling, and the nasty brown tint all over the face next day. Very Very tender skins will smart sometimes even with a hat on. Bathe the face in water as hot as can be borne, until all the heat has gone, then rub one drop of liquid honey over, and dry with a soft towel; the cooling effect is very soothing. Gloves should be worn all the time when out of doors. You will say they feel awkward. So they do; but you will soon become accustomed to they are and miss them. Do not score such to them, and miss them. Do not scorn such helps to refinement. We should never forget we are women, and bring as much gentleness and nicety into our pursuits as possible. Gloves of leather, for such purpose, can be bought at a small price, or you can cut and sew them from strong cloth, or, better than all, crotchet or knit them of strong white cotton. When the hands become chapped wash in soap and water and rub a drop of honey on while still wet, and then dry throughly. If the weather is at all damp wear rubber overshoes, thus guarding against rheumatic attacks, which are too often contracted by damp or cold feet. Observe these rules, my dear girls, and never forget that you can dignify any occupation you engage in.

MINNIE MAY.

Minnie May offers a prize of \$2 for the best essay on "Travelling as an Educator." All communications to be in our office by the 15th of June.

THE FARMER'S ADVOCATE.

So Tired!

This is a picture of me. Eight o'clock is my bed-time, but I was making a new dress for my doll. Her name is Marget Jane, and aunt came and gave me a piece of velvet off her winter's bonnet. The sleeves were too big or too little, and I couldn't get them right. I waited after my mamma said it was bed time as if I didn't hear her, but she looked as if I must go the second time, but I didn't. She let me stay then, but I wasn't happy. Nothing went right and my mamma was very still, but she knew all I was doing. I got very sleepy ; I was cross, too, and my mamma didn't come up with me to tuck me in when I had said

my prayers, and kiss me good-night and perhaps tell me a nice story. She just sent me away up alone with a candle to see with. I cried with all my might so everybody in the house heard me, but I had to go alone.

My Uncle John draws pictures, and this is the one he made of me. It was up on the wall when I came down to breakfast this morning. He has a "Kodak" now, and he says he can show me myself in all my moods. I think he means when I am angry, because my mamma was telling him how I caused her such trouble with my bad temper. If I do what I am told and keep in good humor my Uncle John will forget to take my pictures, so I'm go-

ing to try. I'm very much ashamed to have anybody see this, but I'm not going to be like that any more, and this picture will show me what I once was like and may serve as a warning to other girls and boys.

I hope the A

Wishes. BY EVELYN L.

"Wishing, of all employments, is the worst." In these words the poet evidently refers to that idle wishing which is content to be complete in itself, and needs no action to bring it to perfec-Wishing for that which we cannot hope tion. to obtain is, indeed, the worst of employments, but if the wish be the means of spurring us on to greater efforts after higher things, it will not be without avail. And yet how many are the foolish wishes that we make from day to day.

Great indeed would be our unhappiness were it

which you shall wish; but, take care, for after having asked for three things, I will grant you nothing more."

The fairy having disappeared, the man and his wife were very much embarrassed, but pre-sently the woman said : "For myself, if I am the mistress, I know well what I will wish. It seems to me that there is nothing so good as to be beautiful and rich." "But," answered her husband, "with that

one might be ill, one might die young ; it would be wiser to wish for health and long life.

"And of what use would a long life be if we were poor?" said the wife. "That would only

serve to make us unhappy for a longer time. In truth, the fairy should have promised us a dozen gifts, for there a r e at least a dozen things which I shall re-

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quire." "That is true," the husband replied, "but let us take time to consider; from now until to-morrow morning we will examine into the three things which are the most necessary to us, and then we will ask for them at once."

"I will think all night," said his wife; "in the meantime let us warm ourselves for it is cold."

Taking up the tongs the woman mended the fire, and seeing so many hot coals, she said, without thinking, "Here is a good fire, I wish we had a yard of black pudding for our supper, we could cook it so easily." Scarcely had she uttered these words when there fell by the chimney a yard of the black pudding she had so thoughtlessly desired. "Evil be upon the



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will print my letter and 'scuse the ugly picture, and I'll try to write a big letter some day. KIT.

Answers to Inquirers.

M. G.-Can you tell me how the terms "Whig" and "Tory" originated ?

The word "Whig" was given to the Liberal party in England by the Royalists in Cromwell's day, from the initials on

day, from the initials on their motto, ''We Hope In God.'' The word ''Tory'' may be traced to the Irish adherents of Charles II. during the Cromwellian era, when the words Tar-a-Ri (pronounced Tory), and ''Dolish wish. ''I assure you, my we thoughtlessly desire. The following short story from the French illustrates this in an the story from the French illustrates this in an ''Dolish wish. ''I assure you, my ' the mouths of the Royalists as to have become a by-word to designate them.

A LITTLE TOO MUCH .- "Miss Hijee didn't sing," remarked a friend to the leader of the church choir at the Church of the Offertory. "'No; she has resigned." "I thought she had a good place. What was the trouble ?" "She was offended about the selection of an anthem which she had to lead off last Sunday, and vowed she'd resign sooner than sing it, and she did." "That's odd. What was the anthem ?" "It began, 'I have been young, and now I'm old "" SO TIRED!

One winter's evening a man and his wife, seated near the fire, were talking of the happiness of their neighbors who were richer than

they. "Oh! if I were the possessor of all that I wish for," said the woman, "I would be very much happier than any of these people." "And I also," said the husband. "I would wish to live in the time of the fairies, and that

one might be found good enough to grant me all that I would desire."

At the same moment they saw in the room a beautiful lady, who, regarding them earnestly, said in a low and musical voice, "I am a fairy.

gourmand with her pudding," cried the hus-band. "Truly, here is a beautiful wish! I wish that you had the pudding at the end of your nose."

In a moment the man perceived that he was still more foolish than his wife, for by this second wish the pudding leaped to the end of that poor woman's nose, and she could not possibly tear it away.

"How unhappy I am," cried she; "you are indeed wicked for

for you in order to hide the pudding." "Oh, no," she exclaimed, "I would kill my-

self if it were necessary to live with this pudding upon my nose. There still remains one wish, leave it to me, or I will throw myself from the window !" Saying these words she ran to open the window: Saying these words she ran to open the window, and her husband, who loved her dearly, cried hastily: "Stop, my dear wife, I give you permission to wish what you like." "Very well," said the woman "may this pudding fall to the earth." Immediately the pudding detached itself from her norm and

pudding detached itself from her nose and, turning to her husband, she said, "I see that the fairy mocked us, and she was right. Per-haps we should have been more unhappy being I promise to grant you the first three things for rich than we are at present. After this let us

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THE FARMER'S ADVOCATE.

be content with such things as it may please God to send us. In the meantime we will sup upon our pudding, since that is all that remains to us of our wishes.

The husband thought that his wife was right, and they supped gaily, not troubling themselves further about the things for which they had intended to wish.

To be content with what you have, and to be content with what you are, are two entirely different things. It has been well said that the moment a man becomes satisfied with himself, at that very moment everyone else becomes dissatisfied with him. Let your wishes then reach out towards that which is noble and good and true, for such aspirations alone must lift you to a higher plane. Link with them an earnest, prayerful effort after the right, and you will find that they may be made the means of elevating your character, and leading you ever onward and upward.

'In idle wishes fools supinely stay; Be there a will, and wisdom finds the way."

PRIZE ESSAY.

What is Economy?

BY JESSIE J. LAMBERT, JOCELYN, ALGOMA, ONT.

Economy is the most important element of success. Economy of money and economy of time. By economy I do not mean penuriousness; it is not necessary to write economy and spell stinginess. Miserly saving means the greatest extravagance, and necessitates the expenditure of the most valuable of heaven's gifts-health and strength. "Occupy till I come," is the commission by which everyone holds what ever of earthly possessions are committed to his care. We may forget the terms on which we received the property, but that will not alter the case. An account must be rendered hereafter regarding this commission. When they of old appeared to give their reckoning it was ten for the ten and five for the five. The talent in the napkin was put there by human hands, which choose to use it in this way, when they ought to have used it in that. All God's gifts have their use, but they can be abused too. The value of money is just the good it will do in life, and we ought to know and appreciate this value. Injudicious expenditure of money is a fruitful source of evil. Experience teaches how to save it sensibly, and not at the expense of health, strength and comfort. Such wholesome economy will disincline us to spend our time or money without adequate return, either in gain joyment. Some of the finest qualities of human nature are related to the right use of money, such as generosity, honesty, justice and selfdenial, as well as the practical virtue of economy. Economy is the result of a habit of self-denial. Like all habits it is well to remember it has to be taught early in youth.

careful, lest in their efforts to economize they diminish the nourishing properties of the daily food at the same time as they lessen its cost. Happy indeed is the housewife who has judgment enough to strike the fortunate mean. The woman who makes her life one dull grind, who tolerates nothing which does not tend towards earning or saving money, will find when too late that she has lost what is more valuable. You may save and you may get and yet be very unhappy. Worldly success, however universally coveted, can only be desirable in so far as it contributes to happiness. The woman who fails to make her home the sunniest place to her family, has a mistaken idea of economy; there are plenty of people outside of home who will entice them away, unless there is a strong attractive home influence. It is the petty economies which are the destroyers of genuine home life and comfort.

An economical application of time brings leisure. Method enables us to drive our business, instead of our business driving us. There is nothing attended with results so disastrous as such a miscalculation of our time and means as will involve us in perpetual hurry and difficulty. The brightest talent must be ineffective under such a pressure. The best recipe for succeeding in the world is this: "Work much, and spend little."

In the ordinary course of human affairs success ever waits upon economy, which is the condition by which prosperity must be earned.

PRIZE ESSAY FOR APRIL.

The Policy of Tongues, or How We Should Govern Our Speech.

BY MISS R. MILLER, ST. MARYS, ONT.

For the sake of our home lives alone it is most important that we learn to control our tongues. Did we indulge in scolding, grumbling and fault-finding; did we retort every irritating or impatient word, with one still sharper-what a perfect Pandemonium home would sometimes And has not nature, too, most prudent of lawgivers, placed double guard over the little unruly member, which is the organ of speech.

While it is not given to many to speak well and wisely on every occasion, to drop pearls at every word, it rests with each and all, the brilliant and learned, the illiterate and dull, the east and greatest, to cultivate a right and chari

time, when falsehood, or as it is sometimes polite'y called, exaggeration is so alarmingly on the increase—when so much of what is said must be taken at a liberal discount, it behooves all truth-loving people to mean what they say.

In conversation, we should have regard for people's feelings, should be tolerant of their views and opinions, should seek to interest them and draw out their good qualities, rather than display our own powers or learning. Wit, jest and repartee, all add zest to conversation, and make it a delight; but better never make a joke, unless we are sure it will be taken in good part, than do it by wounding some sensitive spirit. Slang, vulgar phrases and meaningless expletives should be avoided. They are marks of uncultured minds and unrefined tastes. Ridicule and sarcasm are dangerous weapons, and should be handled with care. If we would convince another of an error, better employ tact and caution, else we only kindle resentment and thus defeat our own ends. Nor should we descend to frivolity or flippancy. Loquacity is to be deplor-ed, unless coupled with good sense and intelli-gence. The reason given in Hudibras that people who talk on trifles talk so fluently is, that the tongue is like a race-horse, and the less weight it carries the faster it goes. While the conversation of the best bred people is about things rather than persons, it is, of course, no harm to speak a word of encouragement or commendation of or to anyone, and when prompted by sincerity, and devoid of any flavor of slickness or flattery, it is a graceful thing to do. Evil speaking and gossiping should be shunned as a pestilence. Those who seek to pick holes in the characters of others by gross misrepresentations, by cowardly insinuations they dare not utter in their presence, by spreading reports they know are not true, should remember they betray in themselves an evil disposition, a littleness of mind and nature, a "leprosy of soul," that is enough to make angels weep. Such people neither think nor care what harm they do. They are a sort of disturbers of the peace that are out of the reach of legislation.

"Good name in man or woman, dear, my lord, Is the immediate jewel of the soul. Who steals my purse steals trash; 'tis something, nothing: "Twas mine; 'tis his, and has been slave to thous-

But he that filches from me my good name Robs me of that which not enriches him And makes me poor indeed."

Lastly, we should guard the good name and haracter of another as we would wish others to

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"To be frugal is wise, and this lesson of truth Should ever be preached in the ears of youth. The young must be curbed in their spendthrift haste, Lest meagre want should follow on waste."

Economy and meanness are often considered by the young to be synonymous terms, and we can prove that this is not true by being generous whenever we can. There is a good old pro-vero which says: "He who will not save in youth will have his nose to the grindstone all his life." We know that wastefulness is wrong, and that if a thing has any value it is a duty to see that it is not thrown away, even if we do not want it for our own use. "Gather up the frawant it for our own use. "Gather up the fra-grants that nothing be lost," was spoken by Him who became poor that many might be rich. If by using a little time, patience and ingenuity a saving may be made which enables the person practising it to buy a coveted book, picture or little gift to give to a friend, then it has not been economy exercised in vain. The art of Political Economy might well be supplemented in every school of our land by a course of Domestic Economy. Too many women know next to nothing about how to spend their allowance or earnings to the best advantage. No habit is more valuable than the careful keeping of accounts of money, received or spent. That there is as much pleasure as profit in the practice of household economy, is an acknowledged fact with all thrifty, painstaking women, but housewives, and particularly youthful ones, must be table frame of mind, a spirit that breathes good will to others of which our speech should be the outward expression.

In the first place we should always endeavor to speak the truth with charity; but if we would speak charitably, we must also think and feel charitably. How often we denounce and condemn others, forgetting that had we the same weak nature, the same lack of judgment or common sense, or had we been exposed to a similar temptation, we would, in all probability, have acted in precisely the same manner. Cato said, "There is nothing so delightful as the hearing and speaking of truth ;" but there are many unpleasant truths told out of pure malice, rather than for the sake of the truth itself.

Important as it is at times to speak, it is often just as important to preserve a judicious silence. Lord Bacon said : "Discretion of speech is more than eloquence." As a rule, those who say but little obtain credit for knowing a great deal more than they do. Some will chatter away incessantly, about anything or nothing, till one quite agrees with the Irishman, in thinking their congues might be glad when they are asleep, for they seldom get a moment's rest while they are awake. The habit of speaking out one's mind upon every occasion is by no means always wise, and is often the very essence of rudeness. If we can say no good of anyone, let us keep silence, since we know that criticizing faults will not cure them, and are conscious of many shortcomings of our own.

"Disgust concealed, Is ofttimes proof of wisdom when the fault Too obstinate, and the cure beyond our reach."

We should be sincere. Insincerity soon shakes all faith in human nature; and at the present | to eat with the spoon.

guard our own. To listen, to smile, or to look approval upon anything which detracts from another's character without contradicting, when we know it to be untrue, is to become a participant in the mischief. This is surely one of the occasions which Solomon meant as "* a time to speak."

Pleasant Paragraphs.

A dandy on shore is disgusting, but a swell at sea makes everyone sick.

The only creatures that cannot have too much cheek are pigs.

What is that which has eyes yet never sees ? A potato.

A clever woman listens to compliments; a foolish woman accepts them.

There is always a hand of welcome ready to be offered to the strange umbrella.

When you need a friend never pick out the man whose dog never wants to follow him.

Electricity is a wonderful educator. Think what it has done to make men see things in a new light.

No one but a successful man can truly pose as a cynic. He alone knows of how little value what men desire is.

A four-year-old boy recently complained that his teeth had trod on his tongue.

The three things most difficult are, to forget an injury, to keep a secret, and make good use of leisure.

The man who was born with a silver spoon in his mouth is now looking about for something

THE FARMER'S ADVOCATE.

Uncle Tom's Department.

My DEAR NEPHEWS AND NIECES :-

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The story is told of a Canadian school-boy, who, when asked to give the meaning of responsibility, did so by what teachers now call the "illustrative method". He said : "I have but one suspender on; the button in front is off, and there is great responsibility on the back button."

I may now say, and you will understand my meaning, that there is much responsibility resting on you at this time-the first of May. Already the fields are drying, and the plows, harrows, cultivators and seeders are ready for use. The farmer who does not value these sunshiny May days will not cease to lose by it until another year has rolled around, and another May may bring him another opportunity. The same with boys and girls. This is your May time of life, and it comes but once.

As you watch the men at work at recess time, are you longing to be with them, to turn the soil

and sow the seed ? It is a worthy am. bition-a calling true and noble. It is but natural, too. Tennyson says : "For my spirit leaped withinme To be gone before him then, In among the lightshelooksat, n among the things of men." In The boy who will succeed in his life work does not spring into it unprepared. By knowing what it calls for, he knowingly prepares to fulfil its needs. The girl who will be a good housekeeper, or good baker, is prepar-

The flowery May, who from her green lap throws The yellow cowsip and the pale primrose. Hail, bounteous May, that doth inspire Mirth and vouth and warm desire: Woods and groves are of thy dressing. Hill and dale doth boast thy blessing."

May is a good time for you, my nieces and nephews. Marbles are out again, and bats and balls; then there is paddling in the water, climbing the hills, fishing, boating and so many things to keep boys and girls busy. There, too, are your gardens. Already the seeds are starting, I hope. And have you decided how you are going to divide your garden : what you are going to have in each bed, and what about the produce of it when it has grown ? Your object is to have all do well now, and we will have time throughout the summer to talk of the other.

I am much pleased to see a growing desire among my nieces and nephews for good reading, also a growing dislike to anything that is not pure and true. Stand firm in this-like rocks. Each of you may become such a rock if you stand firm when words your mother might not listen to are spoken; when actions of which your father patented for sale under the names of "soapina", disapproves are being done. So, my dear young folk, you may become rocks of shelter for weaker ones than yourselves by stopping the drift of wrong-doing and letting it go no further.

UNCLE TOM.



MAY, 1892

Grandpa's Love. "One and two, 1 love," said Daisy, "Three, I love, I say." Petal after petal falling, Fluttered far away.

- "Four, I love—all these are grandpa— With my heart alway. Five. that's naughty, jealous Towser, Fire I cast away.
- "Six, he loves—of course that's grandpa-Seven's me, Daisy May. Eight, they both love, really, truly— More and more each day,
- "Nine, he comes,—I'll run and meet him, With my posies gay. Ten, he tarries, but he'll hurry To his Daisy May.
- "'Leven, he *courts*-what's that, I wonder? Guess it's tennis-play. Twelve, he *marries*,-I'd marry Grandpa any day, yes!"

Natural Soaps.

Various saponaceous compounds have been soapine", or similarly manufactured words, but they are usually made from some natural product which has the appearance and quality of soap. In the West Indies and South America

grows the soap tree, whose pulpy fruit is used by the natives instead of soap for washing. This substance, if used in excess or too frequently, injures the texture of the fabric, but it has such excellent cleaning qualities that it will clean as much linen as sixty times as much soap. This saponaceous quality belongs in a great. er or less degree to a number of



by watching or by assisting others before making a trial and after wards a final suc

These beautiful May days, how we enjoy them ! A happy release from winter's icebound clasp, it is no wonder everything seems rejoicing. The frogs in the pond, the crickets, the birds, all join in with the spring chorus. How innumerable are the voices in it; yet, we scarcely hear them unless our attention is called to it, so accustomed have we grown to each. The cawing crow, the drumming partridge, the tapping of the woodpecker, are high in the scale, and call our attention ; but the minor notes, so musical, but with their tones of sadness, are sometimes lost. The water rippling on the shore, the rustling leaves, the soughing pines, - is it any wonder the poetic nature is stirred to speak of what he "can ne'er express, yet cannot all

Listen to what Susy Larcom₂ an American

Listen to what Susy Larcom, an American woman, says about May: -"When April steps aside for ay, -Like diamonds all the rain-drops glisten; Fresh violets open every day: To some new bird each hour we listen." houghellow, another friend of ours, writes:--"The robin, the forerunner of the spring, The robin, the forerunner of the spring, The robin with its jocund carolling, The robin bird with its jocund carolling, The robins in the winds of ay, All welcomed this majestic holiday." Then, there is Tennyson's 'May Queen," with which you are each familiar. Even Milton

with which you are each familiar. Even Milton

P. S. - This month I present another very | Then, there is a tree in Peru, whose bark in inexciting picture from which my nephews and nicces must make a good story, and a prize of woollens. This bark is extensively imported to \$2.00 will be given for the best. All stories Great Britain, and also to other countries for must be in our office by the 15th of June. Some this purpos must have made a mistake about the date given for the last, as they were not called for until the 15th May and already a great many have arrived, but they will all be judged together and the best will appear next month. UNCLE TOM.

Physical Exercise.

Care should be taken not to discourage the young in their natural fondness for physical xercise. Many boys and girls have relinquished sports eminently fitted to invigorate and strengthen them, and which they thoroughly enjoyed, because of slighting remarks of their elders, and from fear of being thought childish. We cannot estimate the evil consequences that may follow when we persuade a young girl that good hard play is unladylike, or a boy that it is unmanly. On the contrary, such sports should receive our most thorough respect and most cordial sympathy. Not to shorten, but to pro-long the time during which they may be suffected to promote health and happiness should be out aim; and when the taste for them declines, our effort should be to replace them by a one e

other species of the genus saphinders, all of which are tropical except one, which is found in the Southern States.

fusion yields a soapy liquid, valued for washing woollens. This bark is extensively imported to

The juice of the soap wort, a weed well known in America, as well as Great Britain and Europe, forms a strong lather with water, and was much used by our grandmothers for scouring dresses. In California the roots of the Philanqium, which grows there abundantly, are much used for washing clothes. This plant has a strong odor of brown soap in its leaves and stem, as well as its

The Egyptian soap wort and the Spanish soap root of the same genus have been employed for washing from time immemorial in Southern Europe and Egypt, and are to some extent exorted for use in cleaning fine articles.

Some of the South Sea Islands produce a species of vine. The thick part of the stem cut n pieces and softened by cooking on hot stones nces a lather-like soap when put into water. In many of the islands of the tropics a berry is gathered which supplies all the qualities of

Farmer Strawsack (to Dentist).—Say, doc; the tooth next to that one aches too. Dentist.— Yes; in sympathy. Farmer Strawsack.—Durn Soch sympathy. 'Yank 'er out!

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ADVOCATE. THE FARMER'S

Puzzles.

1-SQUARE WORD. I-SQUARE WORD. My first is "a fluid," as you know well. My second is "more than" tongue can tell. My third is "a sign," a password or scrall. My fourth is "an incident," will known to all. My fifth and last are "fissures," I'm told. Found 'mong the rocks where lieth the gold. FAIR BROTHER.

2-DROP VOWEL PUZZLE.

H-p-f-r th-b-st pr-p-r f-r th-w-rst-nd t-k-wh-t G-d nds. ADA ARMAND. s-nds.

3-CHARADE.

While out one day, my second spied, My first I saw him do; To catch him was of no avail, He seemed as though he flew.

My whole's a game oft played by boys, It's amusing to the mind; Now, cousi's, put you heads together, And my riddle you will find.

GEO. BLYTH.

4-CHARADE.

With Uncle Tobias as patron We'd do very well I ween, For in many of his writings Much solid sense is seen.

But now, dear Cousin Eddie,

You ought to have a care, And never tell such naughty tales About a lady fair.

Perhaps this maiden is the one You spoke about before, Who euchred our handsome cousin And thus makes him feel sore.

Now flirting, much like quarrelling, Needs two to play the game, And if the girls are flirts, why then The boys must be the same.

I've tried to LAST your confidence, So don't think me a sham, When I tell you Lanark County Is where they're "Packin' ham."

Now, as this puzzle's pretty long,

Now, as this puzzle spice, we have a spice of the spice o

5-CHARADE.

Sacred to the memory of "Henry Reeve,", who passed away (from "puzzledom") on "New Years day, 1892".

He sat at the head of our circle,

We elected him as *Reeve*; He signed our monthly checks, but now, His name I don't perceive.

We miss him; from our ranks he's fled; His chair is empty still. h! who is there can fill his place? There's none to LAST his quill. 01

Our friend has gone, I know not where;

TO AGRICULTURISTS THE WORLD OVER.

GREAT change has come over the Farm Machine and Implement trade of Canada,

by five separate and distinct Companies being consolidated into one. At first curiosity was aroused amongst our farmer friends as to the objects and intentions of this GREAT AMALGAMArion, a few having some doubt as to its expediency. However, the necessity for this move, and the great advantages that are resulting to consumers and manufacturer alike are becoming daily more apparent. Let him who doubts examine samples of the magnificent and complete line of machines and implements we are offering to the public, and let him note the prices our agents are now in a position to quote on these goods.

Modern political economists are strongly ad-vocating the consolidation of manufacturing interests and the uniting of their management as a means of overcoming the extravagant and wasteful methods hitherto in vogue, and as being the most economical, the most scientific and in every sense the best way of conducting manufacturing industries. The ill success of altogether too many manufacturers points out only too plainly the unhealthy state into which the trade had drifted by its former methods.

In consolidating our interests, therefore, we have but followed the inclination of the times, and are not seeking to "monopolize" or to "wield control," but to put this national Cana-dian industry on firmer footing, and to restore it

to a more healthy state. While we thus seek to accomplish our aim, it will be seen that the farmer also cannot fail to be likewise benefited, for :

1st.--CONSOLIDATED PATENTS means an extraordinary opportunity of combining in one machine the best features formerly used on the

several different machines—hence a machine of better mechanical principle. 2nd.—CONSOLIDATED MANUFACTOR-IES means the general use in all our works of all trade secrets and patent processes of manufacture heretofore used by any one of the factories; and the joint purchase of such enormous quantities of raw materials means prices correspondingly lower-hence a machine better and more cheaply constructed.

CONSOLIDATED MANAGEMENT 3rd. means that this Company will manage the united efforts of men of the longest and largest experience in the business, who will now direct entire their energies to the development and improvement of this single enterprise and its methods, instead of wasting much of their time and talents in opposing and competing against one another as heretofore-hence improved and more economical methods. 4th.-CONSOLIDATED AGENCIES means that now one staff of travelling agents can do the work which formerly required four staffs; that in each district one local agency can do the work of four, and that one warehouse also will be sufficient-hence an enormous saving in distribution. 5th. - CONSOLIDATED INTERESTS means an abundance of capital for the proper conduct of the business, giving every possible facility, and also enabling the Company to carry an ample stock of supplies and extra parts for repairs at all desirable points, where they can be most quickly and conveniently obtained by customers hence better attention to the farmer's requirements It will, therefore, be seen from the foregoing that our patrons can depend upon getting the goods we manufacture at the lowest possible price, and that the consolidation of interests will enable us to pro-duce the best machines and implements, both in design and construction, ever placed on sale, and that every facility will be provided, for attending promptly and expeditiously to the wants of agricul-turists. requirements We point with pride to the lines of machines cat-We point with pride to the lines of machines cat-alogued, to any and all of which we respectfully invite the attention of intending buyers. Soliciting a continuance of your patronage, which we pledge to do our utmost to merit,

Lessons Learned in Poultry Keeping. BY R. W. CASWELL, GULL LAKE, ASSA , N. W. T.

Having been a breeder of poultry for several years, I take great interest in anything about them, and am glad to see the ADVOCATE has a poultry department. I have been experimentpoiltry department. I have been experiment-ing with a home-made incubator for four years, and will give you a plan of it soon. Having read a great many articles in poultry papers— some advocating "moisture," and others "no moisture," I started by putting in moisture on 17th day, and chicks died in the shell, from third day to the end of hatch, with 30 per cent. the result. The second time I put in moisture on the result. The second time I put in monstate on 10th day and chicks died principally during the first ten days, result 50 per cent. The third hatch I put moisture in on third day, and in-creased it on 15th day, and got 60 per cent. Fourth I put in more moisture on third day and increased it on 10th day, and had still a better hatch. Now I have concluded the moisture question had to be arranged according to the climate in which the incubator was operated. While dry hatching would probably give good results in Ontario, it would not in western dry climate, and any person hatching with incubators must study the business thoroughly before he or

hust study the busiless thoroughly before he or she can make a success of artificial incubation. My plan of keeping down lice in the poultry house, and that is necessary, if you wish to get eggs and have healthy fowl (lice and eggs are entirely separate branches of the poultry business; they cannot be produced together), is to cut a barrel in the middle, and place it in the poultry house, then nearly fill it with dry dust, into which I mix sifted ashes and a little Persian Insect Powder; the hens dust them-selves in this, and you should see how they en-joy it. The lice have to look for other quarters, they cannot stand the dust bath.

I have tried several remedies for roup, and find that spirits of turpentine is the best article to be had. Take a piece of bread the size of top of finger, soak it in turpentine, put it down the hens throat, holding her until she swallows it, then rubbing the sides of head and comb a couple of times with the turpentine, which will generally effect a cure. If a large flock is to be treated, spongia is good; it is put in the drinking water and is, therefore, easier given. It can be bought of any hom apathic doctor or druggist. would advise every farmer to breed pure-bred fowls. If he cannot afford to buy fowls, he can buy eggs of pure bred stock, which are cheap, considering the stock, for it is not eggs he is

ying, but purely bred birds in the eggs. Ther

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A shining light was he. I fear that he has gone to join The great majority.

As upward from the PRIMAL round Of puzzledom's ladder steep, Our friend did slip, forsooth, and fell Into the —— briny deep.

He's dead, alas! (His work I mean.) His puzzling days are o'er; He laid his quill upon the shelf, We'll see his face no more.'

For lack of time, dear friends, I'll not COMPLETE his life to write. I'll leave that for someone else to do I'll leave that for someon. Who has a better right. FAIR BROTHER,

Answers to April Puzzles.

1. Patron. 3. Respect-ability. 2. S T A 4. Governors, rulers and states- T A R men should possess courage, wis- A R M dom and integrity. 5. Hand-some. R E S 6 Lanark County. 7. Uncle Tom, ADVOCATE. R E T

Names of those who have Sent Correct Answers to April Puzzles.

Elsie Moore, Anna Gordon, Ada Armand, Edward A. Fairbrother, A. R. Borrowman, Addison Linder, Oliver Linder, Geo. W. Blythe, I. Irvine Devitt, Alex. Hartle, Lily J. Day, Jessie H. Anderson, Geo. Montgomery, T. H. Halle.

CHARITY IN JUDGMENT. - Never let it be forgotton that there is scarcely a single moral action of a single human being of which other men have such a knowledge-its ultimate grounds, its surrounding incidents, and the real determining causes of its merits-as to warrant their pronouncing a conclusive judgment.

In youth grief is the tempest which makes you ill; in old age it is only a cold wind which adds a wrinkle to your face, and one more white lock to the others.

We are, yours faithfuily,

lay better, eat better and look better. Never use a common cock, as well use a common scrub bull as a common cock.

NEW ADVERTISEMENTS.

NEW ADVERTISEMENTS. Auctioneer-J. B. Butter, Winnipeg. Northern Pacific R.R. Horse and Condition Powders-Thos. R. Wellband & Co., Winnipeg. Annual Exhibition-Thos. Harkness, Brandon. Agricultural Implements - Anderson & Calvert, Winnipeg. Bankrupt Stock Dealer-J. T. Wilson, Winnipeg. Large Yorkshires-Peter Stewart, Rosebank. Large Yorkshires-James Bray, Portage la Prairie. Stallion-W. P. Smith, Portage la Prairie. Stallion-W. P. Smith, Portage la Prairie. Stallion-W. P. Smith, Portage la Prairie. Mymouth Rock Eggs-J. B. Lokier, Dugald. Groceries-Coltart & Hendry, Winnipeg. Armstrong "Speeder"-J. B. Armstrong Mfg. Co., Guelph, Ont. Undertakers-M. Hughes & Co., Winnipeg. Shropshires and Yorkshires-E. J. Reid, Souris. Photography-Mitchell's Art Studio, Winnipeg. Groceries, Crockery, Provisions - Newberry & Wells, Melita. Harness, Collars, Saddlery-Wright & Co., Winnipeg. Palace Hotel-D. C. McKinnon, Prop., Brandon. Pumps -W. H. McIntyre, Brandon. Groceries, Teas, Provisions-John A. Montgomery, Brandon.

Pumps - ww. H. Mellityle, Brandon.
groups - ww. H. Mellityle, Brandon.
Groceries, Teas, Provisions—John A. Montgomery, Brandon.
Brandon.
Store and Business for Sale – Wesley Jackson, Mellita.
Real Estate—Geo B. Fraser, Brandon.
Lumber, etc. - L. J. Ashley, Brandon.
K. J. Findlay-Clydes and Ayrshires.
William Taylor - Clydes.
William continuace of yourpatronage, which bledge to do our utmost to merit,
We are, yours faithfuily,
MASSEY-HARREIS CO., Limited.



being trained. Is sure to beat .30 this fait, barling accidents. GOLDEN BALLY 121539, Vol. 9, beautiful dark chestnut, 16 hands, weighs 1,050 lbs., was sired by Balaklava (as above). His dam was Fanny B, by Grandson 1129; by Lakeland Abdallah351; by Hambletonian 10. Fanny B's dam was Fanny (L) by I. J. 5705; by Wineman's Logan; by Wadleigh's Logan. Awarded 1st prize at Mor-den Horse Show, 1892. Will make season between Carman, Miami and his own stables. Terms, \$25 00 to insure. Usual return privileges, mares at owner's risk and pasturage free in both instances. "Handsome individuals from speed-producing stock."

JAMES CRONYN, W. J. ANDREWS.

Trainer. Manager. Send for card Address B. J. McCONNELL, M.D., Mordea, Man.



CLYDE STABLE, BRANDON, MANITOBA

Dealer in heavy eastern farm horses, registered mares and western horses. Orders filled from B.C. and Alberta ranches for stallions. Cash, paper or range horses taken in exchange. 27-y-m

Fifteen first and one second herd prizes in sixteen years. A choice lot of young buils for sale. 18-y-M THORNDALE H/

JOHN S. ROBSON. PROPRIETOR, MANIFOU, - MAN. Breeder and Impor-ter of SHORTHORN CATTLE A choice lot of young Bulls & Heifers now on hand.

Correspondence solicited 13-tf-M

Moose Mountain, No. 29006, registered in A. J. C. C., dropped March 28, 1891; solid color, good size and strong sire (Black Frost, No. 22831); dam Mattie Cousins, No. 57463; sire and dam bred by H. J. Townsend, New Glasgow, N.S. Price, \$60 at farm, Tp. 9, Range 4, W of 2nd M. Address-D. GALLO-WAY, Arcola, Assa. Tp. 9, Range 4, W OL WAY, Arcola, Assa.

MAPLE GROVE STOCK FARM



Producers. My herd includes imported and American-bred cows re-presenting such celebrated strains as the Netherland, Aggie, Artis, Aegis, and Echo noted prize-winners. My cows won 1st and 2...d at Winnipeg Exhibition in 1891. New importation of choice cows and heifers from best of illinois herds. Stock for sale. Pedi-greed Berkshire and Yorkshire pigs, spring litters. Will meet visitors at N. P. R. or C. P. R. stations. Write WM. J. YOUNG, Emerson, Man. 28-y-M







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198 TH	E FARMER'S ADVO	OCATE. MAY, 1892
Veterinary Surgeons in Manitoba and N. W. W. A. DUNBAI VETERINARY SURGEON, 15½ Jemima St., Winnipeg Communications by letter or telegraph promp attended to. TELEPHONE 56. 25-9 W. S. HENDERSON, V. S. VETERINARIAN DISTRICT NO. 9, CARBERRY, 27.9-M MANITOB W. J. HINMAN, Veterinarian. OFFICE, 277 James. Telephone 262. WINNIPEG, MANITOBA Wallace's Register complete. Dentistry a special 27-9-M CHARLES LITTLE, V. S. - DISTRICT VETERINARIAN. = Office and Infirmary 15 PORTACE AVENUE EAST. 27-9-M	A A A A A A A A A A A A A A A A A A A	and enlarged to life size if desired. Finished in India Ink, Crayon or Water Colors. Frames made to order of any size; also complete stock on hand. 28-c-m
J. LOUGHMAN, VETERINARY SURGEON, TELEPHONE & RESIDENCE AND INFIRMAR 274 G 270 °nd St. Sonth, near Manitoba Clu 270 °nd St. Sonth, 270 °nd St. Sonth, near Manitoba Clu 270 °nd St. Sonth, near Manitoba Clu 270 °nd St. Sonth, 270 °nd St. Sonth, near Manitoba Clu 270 °nd St. Sonth, 270	A COLLARS	Merchant Tailor, 480 MAIN STREET, 480 MAIN STREET, Winnipeg, - Man. 28 y-M BEAMSHIP ST

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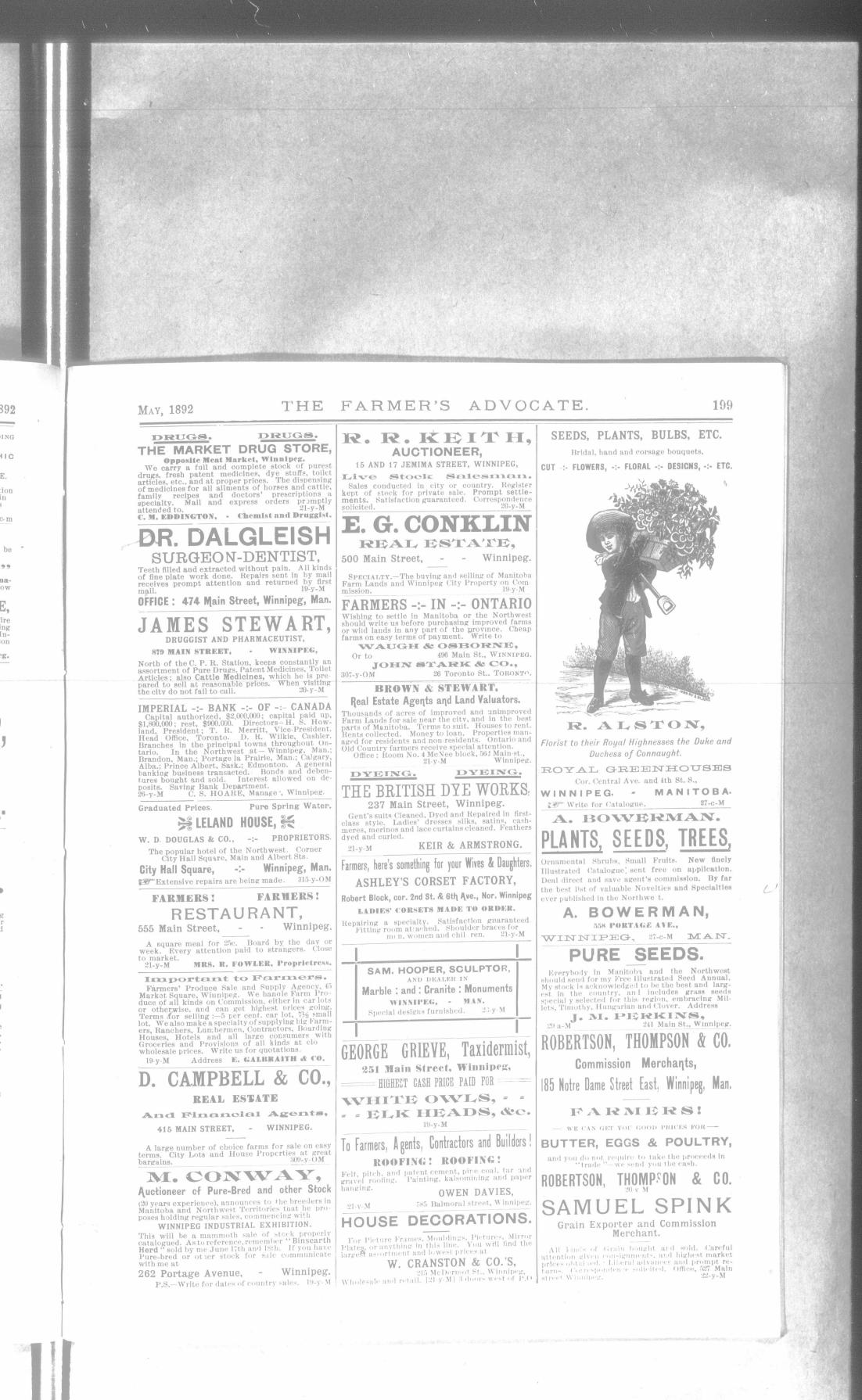
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REMOVED FROM KILDONAN TO VIRDEN.

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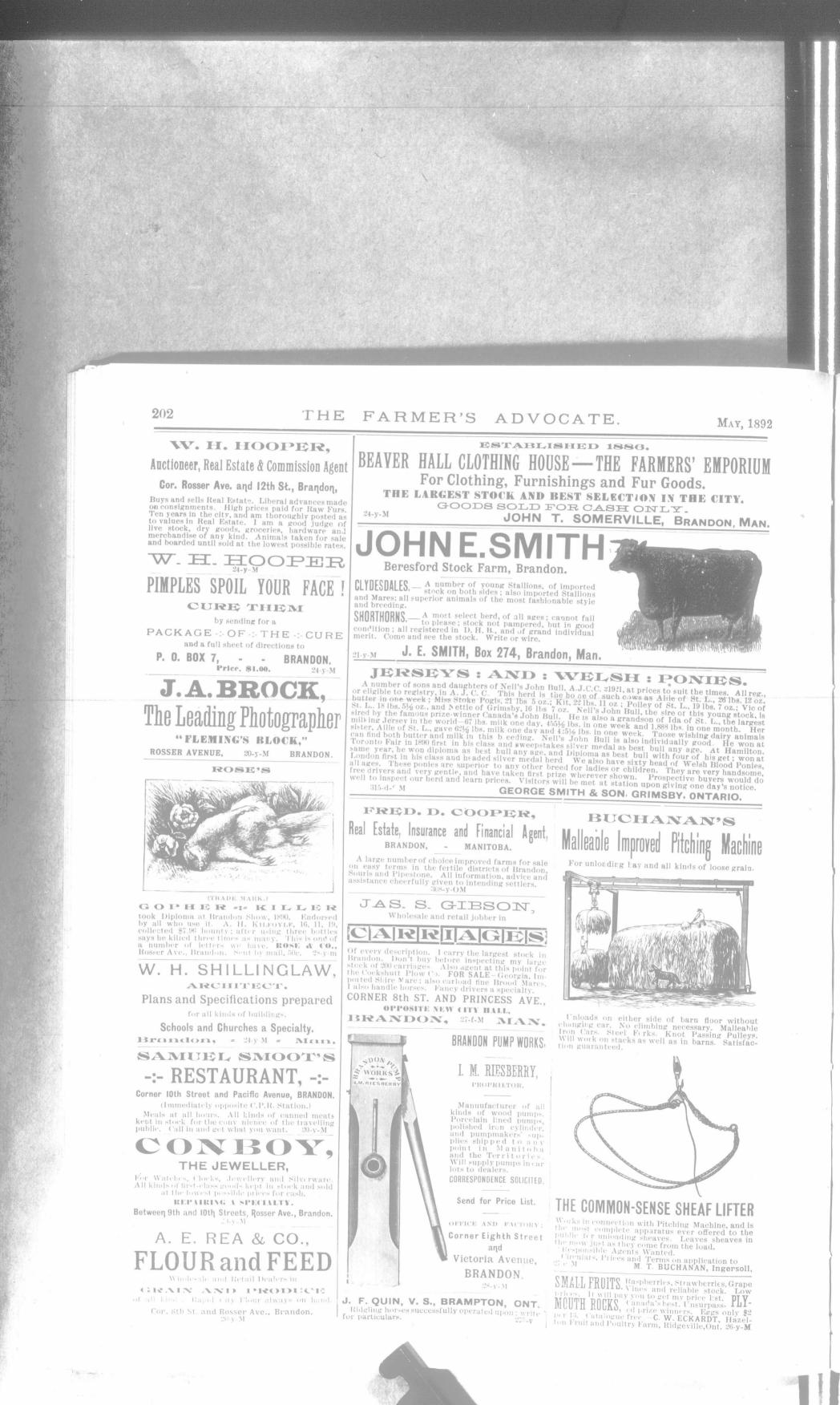
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WM. S. SIMPSON,

27- c-M

2

Blaris Farm, Beulah P. O., Man.



MANITOBA

FARM

LANDS!

2

THE FARMER'S ADVOCATE.

WINNIPEG

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NOTICES.

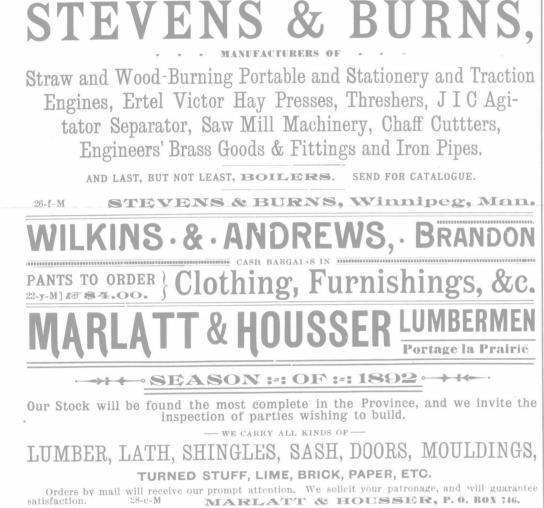
NOTICES. Mr. J. M. Perkins informs us that he is in receipt of a carload of choice timothy, hungarian and milet seed. Parties requiring seed of this kind should arrange for it at once. Mr. Perkins' advertisment will be found in another column. The Manitoban, of Winnipeg, a bright monthly magazine, which has reached No. 5 of Vol. 1, is ex-hibiting continued signs of improvement. Besides the illustrations and literary attractions which its pages contain, the historic articles constitute a specially interesting feature, relating, as they do, to Manitoba. the Territories and British Columbia. Mr. L. J. Ashley, of Brandon, Man., is making a specialty of "Sword's Patent Siding" in connec-tion with his extensive lumber business Parties requiring building material will be supplied with The large quantities he handles of his specialities enables him to sell at right prices, and we would suggest an acquaintance with his price list as profit-able to intending purchasers. See cuts, etc., in another column.

another column. We are pleased to note that Mr. J. B. Rutter, who has been connected with Mr. J. T. Wilson, auctioneer, Portage Ave., Winnipeg, the last three years, has purchased the business of the said J. T. Wilson, and has also been en-abled to secure a long lease of the Trinity Hall. The same having undergone considerable alterations, will make the best auction room in the province of Manitoba. One of our representa-tives has had an intimate acquaintance with Mr. Rutter for the last five years, and can testify to his sterling integrity and business capabilities, and is sure that all business intrusted to him will receive careful and prompt attention. The Northwest Wire Co. (Ltd.) have erected a

sure that an business intrasted to infi will receive careful and prompt attention. The Northwest Wire Co. (Ltd.) have erected a factory in Winnipeg, corner Pt. Douglas Ave. and Lorne St., and fitted it with the best improved machinery for the manufacture of barb and plain twist wire fencing. With their extensive facilities for manufacturing, they expect to fully supply the demand and promptly fill all orders entrusted to them, thus avoiding the great loss and inconveni-ence felt heretofore from this cause. Using only the best galvanized English bessemer steel wire, they offer their goods with perfect confidence, and feel assured that the satisfaction realized by both dealers and customers of their wire will be fully appreciated. Their advertisment in another column will furnish further important information.

STOCK GOSSIP.

STOCK GOSSIP. J. B. Lockier, of Dugald, writes:--"Good de-mand for my Plymouth Rocks. Am selling more ergs than ever before." See his advertisement. Mr. A. Galloway, of Arcola. Assa., has sold his Jersey bull, "Moose Mountain," to Rev. J. B. Powell, of Carlyle, for a brother of the latter at Tiger Hilis, Man. Greig Bros. of Otterbourne, report the sale of the roan yearling bull Meteor =1579- to Thomas Slater, of Clear Springs. He is got by 18th Duke of Kirklivington, from one of their general purpose cows, Magenta =7000-. Mr. E. J. Reid, of Souris, Man., reports that his stock is all doing well-both Shropshire sheep and Improved Large Yorkshire pigs. He lately receiv-ed from Wm. Goodger & Son, widely-known swine breeders, of Woodstock, Ont, a choice pair that will be hard to beat. Note the change in Mr. Reid's advertisment this month; he is offering some choice young stock. Mr. Jas. A. Mullin, of Cypress River, reports that



A. J. BANNERMAN,

Improved and unimproved farm lands in the best parts of Manitoba for sale or to rent on easy terms. Loans negotiated on bonds and mortgages, rents collected, estates managed, taxes and insurance paid, etc. Cor-respondence solicited. 314-y OM

REAL ESTATE & FINANCIAL BROKER 435 Main St., WINNIPEG.

203

GITY PLANING MILL and LUMBER YARD PORTAGE LA PRAIRIE, MAN.,

Wholesale and retail in all kinds of Lumber, Lath, Shingles, Lime and Building Paper, Sash, Doors-Mouldings, Bannisters, Newel posts, &c. All kinds of shop work on short notice. Prices right. Mill Yard and Office, opposite M. & N. Depot, Main St. Delivery to all parts of town FREE. Orders by mail promptly attended to.

Address-J. M. TAYOR, Box 306, Portage la Prairie, Man. [28-h-m] PHONE 37.

RIPTION SUBSC **JPR D**M FOR 1892

A Cash Commission will be allowed to all who are not prize-winners :- From 10 to 20 names, 25c. each; 20 to 50 names, 35c. each; 50 to 100 names and upwards, 40c. each.







- For 5 new names we will give a setting of 13 eggs from the yards of Mr. H. H. Wallace, Woodstock, from any of the following varieties: White Plymouth Rocks, White Wyandottes, Black Minorcas, Rose Comb Brown Leghorns, Mammoth Pekin Ducks, Rouen Ducks, and Aylesbury Ducks.
 For 15 new subscribers we will give a pair, or for twenty a trio, of White Plymouth Rocks, White Wyandottes, Black Minorcas, Rose Comb. Brown Leghorns. Mammoth Pekin Ducks, Rouen Ducks, and Leghorns. Mammoth Pekin Ducks, Rouen Ducks or Aylesbury Ducks, bred by Mr. H. H. Wallace, Woodstock, Ontario.
 For 150 new names a Shorthorn Bal or Heifer, 15 months old, from a prize-winning Manitoba herd.

- For 50 new names we will give a pure-bred register-ed Shropshire Ram Lamb, bred by Mr. John Oughten, Crystal City, Man.
- For 5 new names we will give a setting of 13 eggs from the yards of Mr. R. W. Caswell, Gull Lake, Assa., N. W. T., from either Rose Comb, White Leghorns, or White Wyandottes. A capital chance for boys and girls to start raising purebred poultry.
 For 35 new names we will give a pair of Improved Large Yorkshires, from 6 to 8 weeks old, bred by E. J. Darroch, Minnedosa, Man.
- For 35 new names we will give a pair of pure-bred registered Berkshires, bred by Weld Bros., Winnipeg.
- For 8 new names we will give a Collie pup, eligible for registration, bred by Mr. L. O. Lemieux, of Oak Lake.
- For 18 new names we will give a Berkshire pig, 6 to 8 weeks old, male or female, eligible for registra-tion, br.d by Mr. R. L. Laing, of Oak Lake.

breeders, of Woodstock, Ont, a Choice pair that will be hard to beat. Note the change in Mr. Reid's advertisment this month; he is offering some choice young stock.
Mr Jas. A. Mullin, of Cypress River, reports that is live stock, including poultry, has come through the past winter in "tip-top" condition. He has had "good crops" both of eggs and calves. Mr. Thos, Hall, of Pilot Mound, lately purchased from him a very choice pair of Game birds. We understand that friend Mullin has got his eye on, the World's Fair poultry department prize list. John Hettle, M.P.P., of Boissevain, recently sold to John Hawkins, Tpt. 3, R. 19 W., a pure-bred Durham Cow, Lady Margaret [14884], bred by himself, got by Count Springhill, dam Lady Allen (Vol. 7, p. 430), by General Prim [3237] Xxxx (31234); grand dam Flirt, by Prince of Wales [578] 5100 (18630); great grand dam Fancy Alias, imported. Mr. Hettle has three pure-bred females left.
The following sales of pure-bred Galloway bulls are reported from "Hope Farm," St. Jean Baptiste, the property of Mr. Wm. Martin: - General Gordon 8113, calved Oct. 21st, 1890, sire Black Crusader, dam Griselda, to Mr. N. Boyd, of Carberry, to head his pure-bred herd; Annexation 8114, calved Nov, 14th, 1890, sire Black Crusader, dam Griselda, to Mr. N. Boyd, of Carberry, to head his pure-bred herd; Annexation 814, calved Nov, 14th, 1890, sire Black Crusader, dam Griselda, to Mr. Mortcalm 6581, dam Beauty of Hope, to Mr. J. Wright, of Morden. The purchasers are to be comparatulated on securing such sires for the improvement of their stock.
Mr. R. J. Phin, of Elphinholme, Man., has Imported some cholee stock from Ontarlo, including two vearling Shorthorn bulls from the herd of Mr. Jas. Hunter, Alma, one of which is to head his own herd; one Ayrshire cow from Jas. Phin, Hespeler; two Ayrshire cows and yearling Ayrshire bull from C. E. Bowmar West Montrose, for Thomas Gilman, "Sunview." Moosomin; one Jersey bull calf for Edward Garter, Moosomin; trio of Wy andotte f

THE FARMER'S ADVOCATE.

STOCK GOSSIP.

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

In writing to advertisers please mention the Farmer's Advocate.
Mr. H. Dey, of Indianford, Man., has purchased for use in the county of South Norfolk, from T. Ferris, of Portage la Prairie, the imported Shire stallion. Chieftain II. (5723), got by Champion 457, dam Wanwork 2306. He was bred by W. Riley, Esq., of Botton, Derby, England, and is a bay with white face and three white feet.
Mr. James Bray, of 'Oak Grove Farm,'' six miles north of Macdonald Station on the Manitoba and Northwestern Railway, has leased the grain growing portion of his farm retaining choice hay land, buildings, etc., and will hereafter devote his attention more exclusively and extensively to raising pure-bred stock. He has had very satisfactory experience with Improved Large Yorkshire pigs, and is securing new blood. He went east last month for an importation, including the foundation for a herd of dairy cattle. Mr. Bray's post office is Portage la Prairie.
Mr. Peter Stewart, formerly of Parkhill, Ontario, an enterprising farmer and breeder of live stock, after a visit to Manitoba during the past winter decided to make his home here, and has located about two miles from Rosebank Station on the Brandon branch of the N.P.R. Before leaving the east he sold most of his herd of pure-bred Holstein cattle to Smith Bros., of Churchville, Ont.-some very choice ones at good figures. In addition to work horses, Mr. Stewart brought to Manitoba an importation of Improved Large Yorkshire pigs including imported sows with litters of fine young pigs which, elsewhere, he offers for sale in this issue. The ADVOCATE wishes Mr. Stewart success in his new home.

pigs which, ensewhere, ne ouers for safe in the sisue. The ADVOCATE wishes Mr. Stewart success in his new home.
Thomas Speers, of Bradwardine, "Manitoba Park Region Stock Farm," has made the following sales of pure-bred Berkshire pigs since last report: - One boar to Robert Hall, Griswold; one sow to Nelson Carson, Orrwold; one boar to John Bond, Hill-view; one boar and sow to Wm. Shaw, Oak Lake; one sow to William R. Speers, Hillview; one boar to Wm. Jaffery, Elkhorne; one boar to John E Rose, Belview. Mr. Speers says his breeding sows have wintered well and there is a number of them akin to pig. Royal Star (imp.) (1425) is still at the head of the pens. His Shorthorn cattle have wintered well, and the bull Heir Apparent (imp.) 51380 is at the head of the herd. His cow Jubilee Queen has dropped a fine heifer calf, and the young bull Prince Hero (14744), has done exceedingly well, with plenty of size and carrying his meat in the right places; color, red.

Reven has dropped a fine heifer calf, and the young bull france Hero (1474), has done exceedingly wells, with plenty of size and carrying his meat in the sign places; color, red. him a chance to win his spurs as a sire.



MUTUAL RESERVE FUND LIFE ASSOCIATION OF NEW YORK E. B. HARPER, PRESIDENT. Assets over \$5,000,000; Reserve Fund over \$3.000,100; Government Deposits, \$500,000. Furnishes life insurance at actual cost to its members. Insurance written in 1891, over fifty million of dollars; paid in death claims in 1891, \$2,289,000. Comparison of cost in the "Mutua Reserve" with the "Old-Time Level Premium" companies for the past ten years on a \$5,000 policy. Please NOTE carefully and CONSUMER

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life insurance companies in the world for \$50? For further particulars, circulars, etc., apply to nearest agent, or address A. R. MCNICHOLL, General Manager for Northwest Canada, McIntyre Block, Winnipeg. AGENTS WANTED. Send for circular explaining our new 10-year distribution policy. 27-a-M

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SMITH BROS., Credit Valley Stock Farm, CHURCHVILLE, PEEL COUNTY, ONT.,

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This is the place to get stock of best quality at reasonable prices. We have seventy-five head, in-cluding prize-takers; best strains, cows and heifers, with large milk and butter records; young bulls of superior quality. Send for catalogue. 316-y-OM

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The gold medal flock; established in 1854. All bred straight from imported stock. Three imported Rams in use. Young stock for sale.

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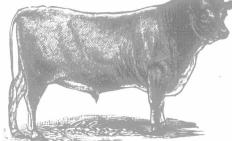
BELVEDERE JERSEYS SERVICE BULLS ARE Canada's Sir George, Pure St. Lambert. (Canada's John Bull. Allie of St. Lambert, 2634 Ibs. butter a week; 561bs. milk daily. (Hugo Chief of St. Ames, Pure St. Lambert.

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Massena, over 20 Ds. a week; 9,099
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Canada. ST. LAWRENCE DAIRY FARM.



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Choice Ayrshire Cattle for Sale. We make a specialty of these grand dairy cattle, our stock consisting of very heavy milkers, and have some fine young stock for sale; also high grades. One mile from Ottawa. 311-y-OM K. BEID & CO.. Hintonburg, Ont.

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Wm. Taylor, Park Mains, Paisley, Scotland, calls the attention of American and Canadian buyers to the fact that his stud of Clydesdales and Hackneys is one of the best in Scotland. Inspection so icited. 317.y.om No trouble to show horses.

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The Veterinary College, M GLASGOW, SCOTLAND. 317-y-om

NOTICES.

Mr. Manson Campbell, the manufacturer of the famous Chatham Fanning Mill, has made a change in his advertisement this month. Read it.

in his advertisement this month. Real II. The record for February, 1892, of new business received by the Mutual Reserve Fund Life Associ-ation was \$4,412,850, an excess of \$796,750 over that of Februar, 1891. During January and February, 1892, the new business showed an excess of \$1,258,050 over the corresponding months of 1891. Mr. A. H. McNichol, of the McIntyre Block. Winnipeg, is the general manager of this Association for Manitoba and the Northwest. THE STEPEN INDIAN RESERVATION in South

and the Northwest. THE SISSETON INDIAN RESERVATION in South Dakota will be opened to settlement on or about April 15th, 1892. This reservation comprises some of the choicest lands in Dakota for tarming and sheep-raising purposes. For detailed information address W. E. Powell, General Immigrat'on Agent, Chicago, Milwaukee & St Paul Railway, Chicago, Ill.; or A. J. Taylor, Canadian Passenger Agent, 4 Palmer House Block, Toronto, Ont. MONTHY PRIZES FOR BOYS AND GIRLS.—The

4 Palmer House Block, Toronto, Ont. MONTHLY PRIZES FOR BOYS AND GIRLS.—The "Sunlight" Soap Co., Toronto, offer the following prizes every month till further notice, to boys and girls under 16, residing in the Province of Ontario, who send the greatest number of "Sunlight" wrap-pers: 1st, \$10; 2nd, \$6; 3rd, \$3; 4th, \$1; 5th to 14th, a Handsome Book; and a pretty picture to those who send not less than 12 wrappers. Send wrap-pers to "Sunlight" Scap Office, 43 Scott street, Toronto, not later than 29th of each month, and marked "Competition": also give full name, ad-dress, age, and number of wrappers. Winners' names will be published in the Toronto Mail on first Saturday in each month. THE SHEOPSHIFES AT THE WORLD'S FAIR.

For the destruction of Ticks, Lice, Mange, and all Insects upon Sheep, Horses, Cattle, Pigs, Dogs, etc. Superior to Carbolic Acid for Ulcers, Wounds, etc

AND CATTLE WASH

Removes Scurf, Roughness and Irritation of the Removes sourr, roughness and irritation of the Skin, making the coat soft, glossy and healthy. The following letter from the Hon. John Dryden, Minister of Agriculture, should be read and carefully noted by all persons interested in Live Stock:

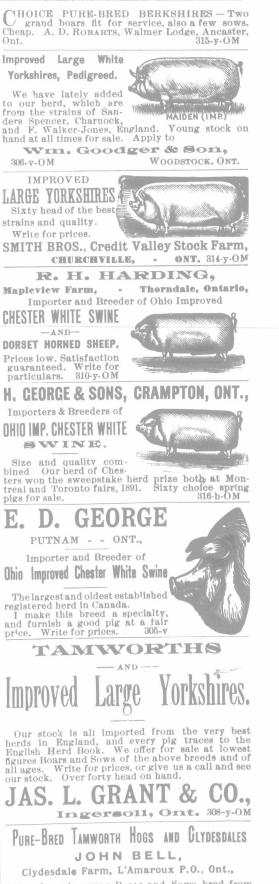
"MAPLE SHADE" HERDS AND FLOCKS.

"MAPLE SHADE" HERDS AND FLOCKS. BROOKLIN, ØNT., Sept. 4th, 1890. DEAR SIR.-I cannot afford to be without your "Little's Sheep Dip and Cattle Wash." It is not merely useful for Sheep, but it is invaluable as a wash for Cattle, etc. It has proved the surest destroyer of lice, with which so many of our stables are infested. I have ever tried; it is also an effectual remedy for foul in the feet of Cattle. I can heartily recommend it to all farmers and breeders. JOHN DRYDEN. "Seventeen Gold, Silver and other Prize Medals have been awarded to "Little's Patent Fluid Dip" in all parts of the world. Sold in large tins at \$1.00. Special terms to Breeders, Ranch-men and others requiring large quantities. Ask your nearest druggist to obtain it for you; or write for it, with pamphlets, etc., to **ROBERT WICHTMAN, DRUCCIST, OWEN SOUND, ONT.**

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Registered Rough-Coated Scotch Collies. Young dogs for sale from the imported sires Turk IT., first prize Toronto, and Moonstone. value \$500, and out of the choicest prize-winning bitches money could buy in England. A. BURLAND, Sec. Ont. Collie Club, Grimsby, Ont. 807-y-OM

THE MARKHAM HERD, Locust Hill, Ont. THE MARKMAAN HELEP, LOCUST HILL, C. P. R.) (Farm one mile from Locust Hill St., C. P. R.) Registered Improved Large Yorkshire, Berkshire and Suffolk Pigs. Stock selected from the best berds in Canada. Am booking orders for Spring Pigs.-LEVI PIKE, Locust Hill, Ont. 308-y-OM



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THE SHROPSHIRES AT THE WORLD'S FAIR.

THE SHROPSHIRES AT THE WORLD'S FAIR. Mortimer Levering, of Indiana, Secretary of the American Shropshire Association, who was in the city for a few days, called at the agricultural department of the exposition. He says the ex-exhibit of Shropshire sheep will be very large, and will include quite a number of the finest specimens from Great Britain. Mr. Levering is going to Eng-lang shortly on his own account, and will increase the interest of the Shropshire breeders in their sec-tion of the agriculture department.—*Chicago Daily Inter-Ocean.*

Inter-Ocean. Mr. Levering, who is now serving his eighth term as Secretary of the Shropshire Association, is emin-ently the right man in the right place, and has brought the Shropshires to the front as the fore-most breed now raised throughout the world. The dsiplay of Shropshires to be made at the World's Fair promises to be a noteworthy one. The amount of premiums offered by the Association and its members will be triple the amount offered by the Columbian Exposition. We understand that the Association will have its own elegant building at the exposition grounds for head-quarters.—Daily Courier, Lafayette, Ind.

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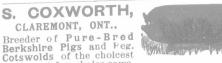
-AND-BERKSHIRES.

FOR SALE COTSWOLDS

We have for sale forty head of yearling Cotswold Rams; thirty head of yearling Cotswold Ewes, and a number of young Berkshire Sows, in farrow to imported boars. We are now getting young pigs, which will be ready to ship in April and May. Write us for prices.



Brampton and Edmonton Stations.



CLAREMONT, UNT., Breeder of Pure-Bred Berkshire Pigs and Feg. Cotswolds of the choicest strains. A few choice sows, six months old, for sale. Now is the time to order young pigs to be shipped in April and May. Noth-ing but choice stock shipped, and satisfaction guaranteed. Write for prices, or if convenient come and see my stock.—C. P. R. Station, Clare-mont, Ont. 316 y-om mont, Ont.

REGISTERED BERKSHIRES FOR SALE!

Young Boars and Sows from two to eight months old. Also booking orders for spring pigs. Satis-faction guaranteed. E. E. MARTIN, Nithside Farm, Paris Station, Canning P.O., Ont. 309-y-OM

Improved Large (White) Yorkshire Pigs and Scotch Shorthorns.



Sweepstakes herd of Yorkshires wherever shown in 1891. The largest herd in Canada. Breeding stock selected from the most noted English breeders. All stock registered. Shipped to order and guaranteed to be as described.

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Offers for sale young B ars and Sows bred from registered stock, imported from the best herds in England. This famous breed of bacon pigs is recom-menced by the largest bacon curers in the world. Try them, it will pay you. Orders now booked for spring pigs. Some A1 Cydesdale Stallions kept for service. Imported and home-bred Colts and Fillies for sale 817-y-om for sale





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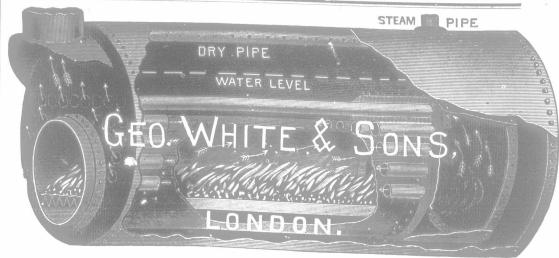
ORANGE RIDGE, Manitoba, March 31st, 1892. FRANK WILSON, Agent "DeLaval" Cream Separators, 33 St. Peter Street, Montreal.

BEAR SIR:-33 St. Peter Street, Montreal. DEAR SIR:-We have received the No. 2 "Baby" DeLaval Hand Cream Separator, and we have got it set up and running nearly two weeks. We can find no fault with it as it does more than you claim for it. We enclose you the money for it. We think the machine is just the thing for this country where we have such extremes of heat and cold. I believe we have such extremes of heat and cold. I believe we have such extremes of heat and cold. I believe we have such extremes of before from the milk, and the quality is greatly superior. The machine runs wonderfully easy ; I could turp it all day myself. You can refer anyone wanting a machine in Manitoba to me. Yours truly, 313-from HENRY J. JONES.

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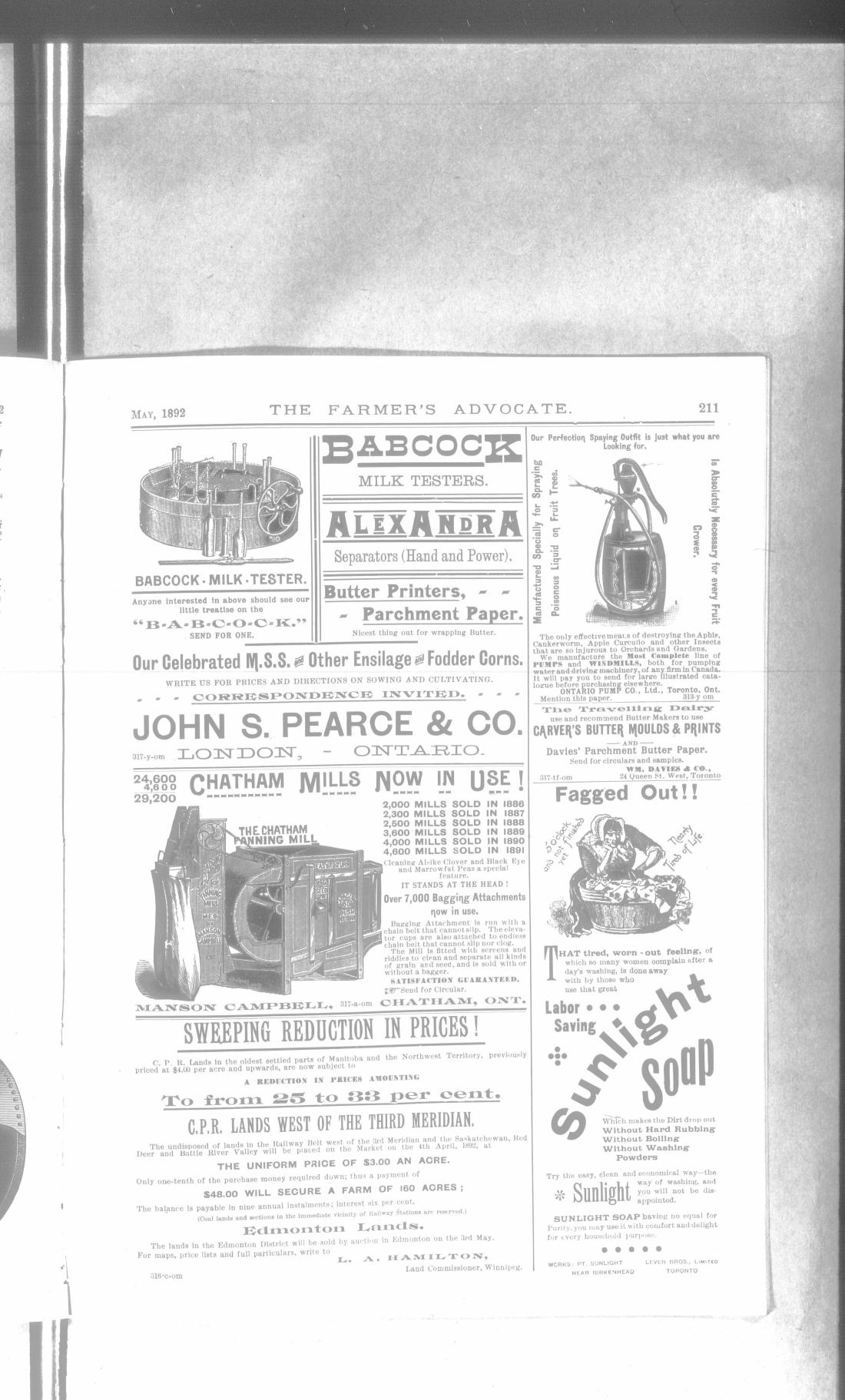
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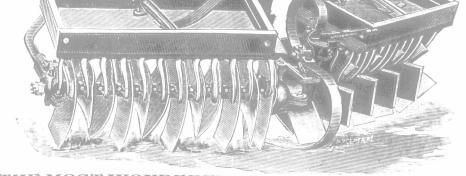
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