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VOL. IV.

LONDON, ONT., AND WINNIPEG, MAN., JANUARY 20, 1893.

No. 38.



THE YORKSHIRE COACH HORSE SHINING LIGHT (1178),
THE PROPERTY OF MR. A. C. McMILLAN, ERIN, ONTARIO,

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#### The Yorkshire Coach Stallion, Shining Light.

The horse that is portrayed upon our plate page in this issue is one of the best specimens of the popular breed to which he belongs. Those who have watched the show ring for the past few years will have noticed that in the carriage class, which is open to all breeds of horses as long as they comply with the standard in height, it has been animals of the Yorkshire Coach and Cleveland Bay type that have won the principal prizes. The length of time that these breeds have been established has made them wonderfully prepotent, and therefore they impress upon their progeny the good qualities for which they have so long been held in repute. Therefore colts and fillies that have one, or, better still, two crosses of this breeding are hardly distinguishable in appearance from the imported ani-

Shining Light is one of the handsomest horses in America. He has a grandly formed neck and head, immense style, is beautifully turned above, his top being superbly finished, good hind quarters and shoulders, and a capital middle, and although he has been fitted for show so many times, his legs are smooth and clean, and his feet and pasterns faultless. He has abundance of hard bone below the knee and hock, while his coat, as his name so aptly expresses, is magnificent. When we last saw him, in a box stall, ungroomed, in mid-winter, he was remarkably smooth and sleek.

It is not surprising that he has been successful in the show ring, having won every year since his importation, and in the highest company, having competed with as many as twenty horses in a single class, yet he was never placed lower than third, and that on only one occasion. At succeeding shows he was placed before the horses that had previously beaten him. The fact is, few horses in any class have continued to win year after year and again return fresh to the conflict with the success that has attended this one. In 1888 he won first as a threeyear-old and silver medal; in 1889, in his four-yearold form, he won second in his class, but the following year succeeded in beating the winner. In 1890 he won third in his class. In 1891 he won second at Toronto Industrial, and in 1892 he won first and a silver medal for the best horse of any age, beating one of the horses that had been placed before him in 1890. In 1892 he also won a first prize at Toronto of \$60 for best stallion and five of his progeny, beating the noted winner, Prince Alexander, one of the best stock horses in Canada, and sire of the silver medal group of 1891.

Shining Light's colts are coming to the front at all the principal shows, and have succeeded in carrying more than their share of winnings. Among these is Sunlight, the first colt sired by him, owned by B. Rothwell, Ottawa. This is one of the best carriage stallions in Ontario, winning first prize and sweepstakes two years in succession at Ottawa, beating the imported sweepstakes winner, Argyle.

A yearling gelding by Shining Light also won silver medal at Toronto, 1892, a two-year-old filly winning second, a two-year-old stallion winning third.

Shining Light was imported by Messrs. Irving & Christie, Winchester, Ont., and has been owned and travelled on the same route for the past four seasons by Mr. A. C. McMillan, Erin, Ont., his proprietor, with immense success. In fact, so well pleased are his patrons that they are now urging Mr. McMillan to place another Coach horse within their reach, in order to continue in the same line of breeding. For this reason only Mr. McMillan may sell this grand and impressive sire.

Shining Light, we believe, is the only horse of his class that has won sweepstakes twice at Toronto. He is registered in the Yorkshire Coach Horse Book; is a beautiful bay, free from white, black points, mane and tail, stands 161 hands high, weighs 1,400 pounds, has capital action. He was bred by Mr. Dale, Otterington, Eng.; foaled June 10th, 1885; sired by Wonderful Boy (534); g. sire Wonderful Lad (914); sire of dam, Herod (218); sire of g. dam, Champion (85), all of which were celebrated prizewinners in their day.

#### Artificial Fertilizers.

Since our last issue, a gentleman representing Freeman's Fertilizer Works called on us. He reports that this firm sold to farmers during last season over six hundred tons of artificial manures; that their output has doubled each year since the works were opened. This being the case, a great many farmers and fruit growers must have given these manures a fair trial. We invite those who have tried them to send us a report of their experience. We would be February fifteenth.

#### Agriculture in the Schools.

A very important bulletin, issued by the Hon. Mr. Dryden's Department, has just reached this office. Its subject is the "Teaching of Agriculture in the Public Schools"; it is based upon the excellent address delivered last fall in Toronto by Mr. C. C. James, M. A., Deputy Minister of Agriculture, before the Provincial Association of School Trustees. That body requested the publication of the addresss, and the Bulletin is the answer to the request.

SHOULD AGRICULTURE BE TAUGHT IN THE PUBLIC SCHOOLS?

The twenty-two interesting pages of this pamohlet are devoted to answering three questions: 1st. Should agriculture be taught in the public

schools? 2nd. Can agriculture be taught in the public schools?

3rd. How can agriculture be taught in the public schools?

One would think, in an agricultural province like Ontario, to ask the first question is to answer it, at least so far as the rural schools is concerned; but experience seems to throw doubt on the opinion that even the farmers of Ontario believe that agriculture should be taught in the rural schools. For, were the belief seriously entertained by a considerable number of them, they would at least attempt to use the means provided by the Education Department for the teaching of the subject. The trustees of the schools are farmers, the teachers are mostly the sons and daughters of farmers, the subject has had for at least six years a place on the curriculum of studies, there is a text-book provided and one of the "special directions" in the Regulations (page 110), is that "the authorized text-book on this subject (agriculture) should be introduced into every rural school, that special attention should be given to such points as how plants grow, how farms are beautified and cultivated, . . . the relation of agriculture to other pursuits, etc.," and yet we have good reason to believe that in the majority of rural schools the text-book is not introduced, and the subject, even if it has a place on the time-table, gets no place or time in the exercises of the school. This statement, which will hardly be questioned, is further supported by the exceedingly small proportion of the candidates at the entrance examination who take agriculture. Of the 337 rural candidates who wrote last July at points near this city, only seven tried the paper on that subject.

These, and other statements which might be adduced, emphasize the necessity for the discussion of the first question which Prof. James proposes in the Bulletin, and justify his occupying half its space with accumulation of argument to prove that agriculture should be taught. When the farmers of this province become fully seized of that opinion, they will find or make a way to have the subject receive its proper share of attention in their public

We have not space to state and review Prof. people either reside in the country or are intimately associated with the rural districts; that 69 per cent. of Ontario's school population belong to the rural schools; that an undesirable movement from the township to the city is in progress, resulting in an estimated loss to Ontario's rural population in ten vears of 368,605; the capital invested in Ontario in agricultural interests amounts in round numbers to one thousand million dollars, being  $5\frac{1}{2}$  times the investment in manufactures in Ontario and 3 times the investment in manufactures in the whole Dominion; that a large part of the surplus produce of Canada comes directly from its tilled acreage, and that our yield per acre, of wheat, for example, is decreasing instead of increasing. The conclusion is that the farm would become more attractive and profitable if proper instruction were given in the science of agriculture, and that therefore it should, if possible, be taught in all our rural schools.

CAN AGRICULTURE BE TAUGHT IN OUR PUBLIC

SCHOOLS?

The Bulletin answers this question mainly by quoting official reports of what has been accomplished since 1879 in the elementary schools of France. At that date it was made compulsory on every Normal College to provide agricultural instruction for the teachers-in-training, and subsethe primary schools. Eighty-six Professors of Agrito hold conferences with the farmers, and to carry

from seven to nine years of age. The British Board of Agriculture last year reported, that in France the success achieved is encouraging and worthy of imitation. Professor James thinks that, judging by the success of the Agricultural College at Guelph. Ontario need not fear to enter on a course that France has shown to be practicable and advantageous.

The difficult question is—

HOW CAN AGRICULTURE BE TAUGHT IN OUR PUBLIC SCHOOLS?

The author of the Bulletin grants that the teacher should receive some training before undertaking the work, "otherwise it were better to leave it alone." France began its work by training the teachers in its 160 normal institutions. We have two normal schools, turning out only about 400 teachers per year, while our model schools are yearly recruiting the profession at the rate of 1,200 or more; to be exact, the figures per last report were, respectively, 442 and 1,379, Hence it is clear that the normal schools cannot meet the necessities of the case. The short 12-weeks' term at the model schools is already crowded, and can not give much attention to the subject. The intending teacher, as a rule, spends two years at the high school and three months at the model, therefore it seems to us that under the present system of licensing teachers in Ontario, agriculture must be taught in the high schools before it can be successfully introduced into the rural schools. Anyone who admits the force of Professor James' answer to the first question would not deny that every high school undertaking to train teachers and receive government aid therefor should be properly equipped to teach scientific agriculture.

The friends of agricultural education, recognizing the need of some special training of the teachers. rejoiced to read the proposition made by the Hon. Mr. Dryden, at a meeting in Whitby, about the beginning of last month. He proposed to invite teachers to spend four weeks of their summer holidays at the Agricultural College at Gueiph, to hear special lectures on various subjects connected with agricultural pursuits, such as the nature of soils, plant and animal life, etc., and to observe the methods pursued and experiments undertaken at the farm. Judging by the attendance of teachers at the special classes in drawing, music and science, held at the Education Department halls two or three years ago, we should expect from 50 to 100 teachers, of the best men and women in the profession, to avail themselves of the excellent opportunity offered by the Minister of Agriculture. It would be a boon to holders of second-class certificates who do not expect to again attend any training institution.

As other means of reaching the interest and sympathy of teachers, we would suggest to Farmers' Institutes the propriety of appointing delegates to attend their respective county Teachers' Associations, not to give lectures on agricultural themes, but to stimulate the interest of the teachers, to confer with them as to what is doing, and what more cultural instruction general that a large proportion-fully two-thirds-of our and efficient, and to ask for suggestions as to how the institutes, trustees and parents may co-operate with the teachers to further the good work.

Could not township councils or agricultural societies devote a grant sufficient to carry on a series of lessons for a month or two in some one of the largest and most convenient schools in each township? competent teacher might do much in this way or many of the advanced pupils in the municipality, besides aiding such teachers in the neighborhood as would care to attend classes on Saturdays. Be the means what they may by which the teachers receive their training, we agree with Prof. James that "all or nearly all depends on the (trained) teacher."

And yet not quite all, for, as our author says, trustees must be willing to provide necessary means. They must recognize in his salary the increased expense incurred by the teacher in fitting himself for this work. They must put house and grounds in such conditions of size, arrangement, fencing, drainage,

etc., that will make the best teaching possible. School sections which earnestly undertake this work, likely to be of so much benefit to the country, deserve recognition from the government. As long ago as 1871 the late Dr. Ryerson, to whose wisdom and foresight our excellent school system is the monument, proposed that a special legislative grant be made to every school taking up agricultural quently agriculture became a compulsory subject in chemistry and the kindred sciences; and he went so far as to establish a special course of study, examinaculture have been appointed to instruct the teachers, tion and certificate for teachers. To be eligible to share in the proposed grant, a school was to be in out investigations suggested by the government, charge of a teacher possessing one of these special The course of study in each class is stated, one step certificates and to hold classes for this instruction. glad to receive all such testimony not later than of which is particularly worthy of mention, viz. A number of teachers studied the course and passed practical lessons in the school garden for children the examination, but the legislature never voted the tish Board France the thy of imiging by the t Guelph, ourse that nd advan-

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through. That, or something like it, might now be revived.

Prof. James urges that an agricultural coloring be incidentally given the teaching of composition, history, drawing, reading and arithmetic. The suggestion is practical. The wonder is that it needs repetition. Even though the teaching of agriculture was not thought of, the live teacher would, so far as he is able, draw on the children's interests, occupations and experiences for the groundwork of his illustration and instruction. The problems based on yesterday's market reports have a stimulating freshness compared with those copied from a five or ten-year-old arithmetic. Dr. McLellan used to tell a good story about a boy who had gone through the arithmetic, but failed to solve a problem involving the profit on a sale of turkeys. "I can't do it," said he. "there are no turkey sums in the arithmetic I ciphered in."

The reader of the Bulletin will not need to be told that the author attaches little or no value to the mere memorizing of terms, formulæ and technicalities from a text-book. The teaching, to be worthy of the name, must be by the scientific method. He does well to quote with approbation these two paragraphs, from Professor Huxley's address to an agricultural club. They are well worth repetition and careful study:-

and careful study:—

"There are some general principles which apply to all technical training. The first of these, I think, is that practice is to be learned only by practice. The farmer must be made by thorough farm work. I think I might be able to give you a fair account of a bean plant, and of the manner and condition of its growth; but if I were to try to raise a crop of beans your club would probably laugh consumedly at the result. Nevertheless, I believe that practical people would be all the better for the scientific knowledge which does not enable me to grow beans. It would keep you from attempting hopeless experiments, and would enable you to take advantage of the innumerable hints which Dame Nature gives to the people who live in direct contact with things."

"And this leads me to the general principle which I think applies to all technical training of school boys and school girls, and that is that they should be led from the observation of the commonest facts to general scientific truths. If I were called upon to frame a course of elementary instruction preparatory to agriculture, I am not sure that I would attempt chemistry, or botany, or physiology or geology as such. It is a method fraught with the danger of spending too much time and attention on abstraction and theories, on words and notions, instead of things. The history of a bean, of a grain of wheat, of a turnip, of a sheep, of a pig, or of a cow, properly treated—with the introduction of the elements of chemistry, physiology and so on, as they come in—would give all the elementary science which is needed for the comprehension of the processes of agriculture, in a form easily assimilated by the youthful mind, which loaths anything in the shape of long words and abstract notions, and small blame to it."

We heartily endorse the aim as well as the

We heartily endorse the aim as well as the method of teaching agriculture briefly set forth by Professor James. Not the "how"—the technique, but the "why"—the science of the subject, aiming in the process to create a sentiment in favor of farm work and love for rural life, and to arouse ambition to become an intelligent, industrious, successful farmer, and, consequently, highly worthy of the respect and honor of every member of the com-

#### Report of the Ontario Commission on the Dehorning of Cattle.

The practice of dehorning cattle appears from the evidence to have been introduced vince in the year 1888, by Messrs. Kinney and Johnson, South Norwich, Oxford Co. It was not adopted by farmers to any extent till February, 1890, when Mr. Smith, a farmer's son, of Dereham, Oxford Co., returned from a visit to the State of Illinois, where the practice of dehorning cattle had obtained to a considerable extent. This gentleman dehorned his father's herd. This example was followed by several of his neighbors. The practice raised considerable controversy in the district as to the cruelty and pain involved in the operation. In February, 1891, Mr. W. V. Nigh, of Avon, Middlesex Co., was prosecuted at London before two Justices of the Peace on a charge of cruelty to animals by dehorning them. The case was dismissed, on the evidence of ten witnesses that the suffering was of short duration and the results were beneficial.

The practice continued to extend in the district, Messrs. Smith and W. A. Elliott being the chief operators, and within a year they had dehorned about 650 head of cattle, chiefly in the counties of Oxford, Norfolk and Elgin. These operations became the subject of general conversation in the community, and opinions were very much divided on the subject. Those who had adopted the practice justified it as being beneficial and advantageous to the comfort and safety of the animals. Those who opposed the practice held the view that it was cruel and inhuman, and no corresponding benefit derived. The controversy increased, and in many cases became very sharp between the two contending parties. This led to "The Dehorning Case being brought before the courts.

grant, and a wise and beneficient scheme fell of the practice, instituted proceedings in January, 1892, against Messrs. Wm. York, sr., W. A. Elliott and Edward York, charging them with cruelty to animals by cutting off the horns of Mr. Wm. York's cattle. The case was called at the Interim Sessions, London, Ont., on 6th January, before Messrs. Smythe and Lacey, Justices of the Peace for the County of Middlesex. Mr. C. Hutchinson conducted the prosecution. Messrs. E. R. Cameron and R. M. C. Tooth conducted the defence. Ten witnesses were examined for the prosecution—two veterinary surgeons, one medical doctor, two butchers and five farmers. None of these witnesses had ever seen the operation performed, but believed from the structure of the horn the pain would be very great.

> Seven witnesses were examined for the defence -four veterinary surgeons and three farmers—all of whom had either seen or performed the operation, and were convinced the benefits were great and the suffering of short duration. The case rested for a time at this stage, the defendants withdrew their defence, and they, with a number of others, waited upon the Ontario Government at Toronto on February 2nd, 1892. The deputation, which consisted of Messrs. E. B. Brown, J. A. Brown, B. Hopkins, of Brownsville, and seven other representative farmers of the district, with Mr. E. R. Cameron, solicitor, London, was introduced by Dr. McKay, M. P.P.

> They were received by Sir Oliver Mowat, Attorney-General, Hon. John Dryden, Minister of Agriculture, and Hon. Messrs. A. S. Hardy, G. W. Ross, J. M. Gibson and Richard Harcourt. Mr. E. R. Cameron was speaker for the deputation. He begged the government to interfere and save the defendants from further costs, and asked that a commission be appointed to investigate the whole question of dehorning cattle. As there was no precedent to govern the courts in this matter, it was unfair to place the whole cost of defending a prosecution upon two or three men, besides branding them as criminals in the event of conviction, which seemd probable in this case.

> The Attorney-General, in reply, pointed out they were making a most unusual request in asking the Executive to interfere in the administration of justice. He added, however, that he and his colleagues were much impressed with the arguments in favor of an official enquiry, and if, after this matter was concluded, they thought fit to make a like application it would be favorably considered, but the Executive did not feel justified in taking any action at present.

> On February 3rd the case was resumed at London, and adjourned for judgment until February 8th, when judgment was given as follows:

1. The horns referred to were cut off by W. A. Elliott, assisted by E. York, and ordered by Wm.

2. Thus cruelly torturing the cows, and no precautions were taken to lessen the pain, nor to protect the cows afterwards from cruel treatment.

3. It does not appear to us there was any necessity

to cut off the horns of these cows. 4. Neither does it appear that doing so was any advantage, but the whole evidence leads to the conclusion that it was a decided disadvantage to each

5. There being no advantage to the cows to compensate for the torture and suffering endured by them, there should be adequate advantage to the public generally; in our opinions it does not appear that such is the case.

6. On the contrary, cutting off the horns of milch cows and other cattle may be the means whereby fraud may be perpetrated on the public, by removing that which is the best means of knowing the age of a cow, and of judging of its breed and other qualities.

The decision is, that each of the defendants be fined \$50 and costs forthwith, and in default of payment, one month in the county jail.

Notice was given that the judgment would be appealed against at the next General Session of the

This case caused a widespread newspaper controversy, which aroused public attention to such an extent that on the 9th of March a commission was issued by the Ontario Government to the Hon. Charles Drury, R. Gibson, D. M. McPherson, A. Smith, H. Glendinning and J. J. Kelso, authorizing them "to obtain the fullest information in reference to the practice of dehorning cattle, and to make full enquiry into and report with all reasonable speed the reasons for and against the practice, and to collect all the accessible evidence of experts and others in connection with any trials which have The late Charles Hutchinson, Crown Attorney of taken place in England, Scotland and Ireland, or Middlesex County, acting on behalf of the opponents any other useful information from any quarter ob-

tainable." The Hon. Chas. Drury was appointed chairman; J. J. Kelso, secretary.

The Commissioners, on the invitation of Dr. Smith, visited the Ontario Veterinary College on the 20th April and examined the anatomy of the horn, and the same day at the Parliament Buildings received evidence from the following gentlemen: Ex-Ald. G. Frankland, cattle exporter; A. J. Thompson, cattle exporter; W. W. Hodson, lessee Toronto cattle market.

On May 10th the Commissioners met at Tilsonburg, and received evidence from seven farmers and one V. S., L. A. Brown, Aylmer.

May 11th the Commissioners, accompanied by the Hon. J. Dryden, Minister of Agriculture, visited several farms in the district where dehorning had been practised, and the owners expressed themselves satisfied with the results. On the same day they visited the farm of Edward York, Brownsville, and witnessed the operation of dehorning performed on six animals by W. A. Elliott, assisted by E. York and a farm hand. The operation was done with a fine tenon saw, eleven teeth to the inch, well sharpened and oiled; each horn was cut off in about an average of six seconds. After the operation, the cattle were turned into a yard, in order that the Commissioners might see the result of the operation. They say, no doubt that during the operation there is considerable pain, but after the operation is over the cattle did not seem to show any symptoms of severe pain. The same afternoon the Commissioners received evidence from six farmers.

May 12th Commission received evidence at Town Hall, Tilsonburg, from fourteen farmers and one V. S., Wm. Brady, Tilsonburg. The Commission met at Harrietsville and received

evidence from sixteen witnesses. June 1st the Commission met at London and re-

ceived evidence from seven witnesses. June 2nd, at London, received evidence from ten

witnesses, one M. D., and one V. S. June 3rd, Mr. Chas. Hutchinson, Crown Attorney, was examined, and a deputation was received from the London Humane Society, who gave their views to the Commissioners.

On June 14, 15 and 16 the Commission examined twenty witnesses in Toronto, all connected in some way with the cattle trade, except two Drs. and two

June 17th the Commissioners visited the Toronto cattle market to see for themselves the extent of the injuries which the cattle had received in transit. There were some injured and some had broken horns.

July 7th the Commissioners visited the Experimental Farm at Ottawa. Fourteen steers that had been dehorned in the spring and previous fall were seen, and evidence taken from Prof. Robertson and the herdsman. In the afternoon a meeting was held at Ottawa, and evidence given by W. C. Edwards, Esq., M. P., and Senator Read, of Belleville.

July 20th the Commissioners met at the Town Hall, Ingersoll, and received evidence from ten witnesses, all farmers in the district.

Whatever opinion people may have about the dehorning of cattle, only one opinion can be held about the work of the Commission. They have spared no labor in investigating the matter and collecting all available evidence that could be had.

We think the Commissioners are entitled to the respect and esteem of all parties connected with cattle raising and feeding for all purposes, for the very painstaking, careful and full investigation which they have made of the whole subject. They cite in their report a number of decisions given in the higher courts of England, Scotland and Ireland on the same subject, even these lords of session were not agreed and of one opinion as to the legality of the operation, and whether it comes within the scope of the Act against cruelty to animals or not. We also think the farmers generally will agree with the conclusions which the Commission have arrived

at and their recommendations: 1st. That the practice of dehorning be permitted where performed with reasonable skill, with proper appliances, and with due regard to the avoidance of unnecessary suffering, and that the Ontario Government should bring to the attention of the Dominion Government the desirability of amending the law relating to cruelty to animals, so as to give effect to

this recommendation. 2nd. That the Ontario Government should direct the management of the Ontario Experimental Farm to experiment with chemicals on the horns of young calves, and also cutting out the embryo horn, with a view to ascertaining whether these methods are more desirable than sawing off the horns when they

have obtained their full growth. We hope the result of the work of the Commissioners will set at rest this question, and that we shall hear no more of farmers being prosecuted for practising dehorning of cattle, if they see fit to do A copy of the report may be obtained by apply-

#### Live Stock for the World's Fair.

The Pure-bred Cattle Breeders' Association having taken the initiatory steps towards a live stock exhibit from the province of Manitoba and the Territories, for the World's Fair, W. S. Lister, Secretary of said Association, acting upon advice of the Minister of Agriculture, advertised for a meeting of "all parties interested in having an exhibit of live stock of all kinds at the Chicago Exposition to be held on January 4th, 1893, in the city hall, Winnipeg.

In response to this advertisement there was a fairly representative meeting. Among those present from the outside points were: Dr. Rutherford, M. P. P., Jas. Bray, Portage la Prairie; W. S. Lister, Middlechurch; S. A. Bedford, J. D. Mc-Gregor, Robert Hall, Brandon; Leslie Smith, Wawanesa; John Hettle, M. P. P., John Kinettle, Boissevain; R. D. Foley, Manitou. Many of the prominent breeders and owners of stock living in the city were also present at the meeting.

Robert Hall, President of the Cattle Breeders' Association, was elected to the chair, and W. S. Lister, Secretary of the Cattle Breeders' Association, was appointed secretary.

After fully discussing the advisability of making a cattle exhibit, in which Mr. Bedford, of Experimental Farm, Brandon, and Mr. Greig, of the "ADVOCATE," favoured sending an exhibit of steers only, but the majority of those present thought that Manitoba should be represented by breeding cattle, a resolution, moved by R. D. Foley, seconded by J. D. McGregor, to that effect, was

The horse interests were next discussed, and a petition, asking the Government to send an exhibit of horses, was moved and seconded by Dr. Hinman, V. S., and David McGregor, respectively,

It was also resolved to request the Government to send exhibits of sheep, swine, poultry and dogs, on motion of Dr. Hinman, seconded by James Bray, Portage la Prairie.

The list of men considered capable of selecting the cattle exhibit was published in December issue of the "ADVOCATE." The following were named by this meeting as suitable men to make selections in the respective classes

#### STANDARD-BRED HORSES.

Dr. Little, Winnipeg; David McGregor, Winnipeg; Dr. Hinman, Winnipeg; George Cochrane, Morden; Nat Boydd, Carberry; Dr. Smith, Win-

THOROUGHBRED AND OTHER LIGHT HORSES. W. L. Puxley, Winnipeg; Dr. Mat. Young, Manitou; T. G. Ferris, Portage la Prairie; J. Jen-

kinson, Winnipeg; Adam Paterson, Winnipeg; David McGregor, Winnipeg.

HEAVY DRAUGHT HORSES. Wm. Risk, Winning; J. D. McGregor, Brandon; James Elder, Virden; J. Carruth, Portage la

Prairie; R. D. Foley, Manitou. SHEEP AND SWINE.

Leslie Smith; A. A. McArthur, R.

James Glennie. The following resolution, was proposed by Dr. Rutherford, that an Executive Committee, consisting of five members, be elected, to look after the work The idea was acted upon, and W. S. Lister, George H. Greig, Dr. Hinman, Wm. Risk and H. H. Chadwick, were appointed the committee, and instructed that their work should be to ascertain where the best live stock in the country was, and to keep members of the association and breeders well posted as to progress of arrangements, also to do every thing to expedite matters and make the exhibit a

success. Carried. The meeting then adjourned.

The Executive Committe met immediately on the close of the meeting, and elected Geo. H. Greig Secretary. They decided to interview the Minister of Agriculture next day, January 5th, the Secretary to arrange a meeting. Adjourned.

The Executive Committee, as arranged, inter viewed the Minister of Agriculture on January 5th. That gentleman expressed himself as pleased with the prompt action taken by the breeders, and also by the appointment of the Committee and desired them to take immediate steps to ascertain the names of all those who had stock they wished to enter for the World's Fair, and also stated that he would do all in his power to have an exhibit worthy of the Breeders who have eligible beasts are respectfully requested to send their names and addresses, also the number, age and breed of their animals, to George H. Greig, Winnipeg, Manitoba.

It is a pity similar action had not been taken a year ago—better late than never. A good exhibit from Manitoba will do more to advertise the country than could be obtained by expending ten times or perhaps twenty times the amount in any other way. Now is Manitoba's chance. Why have not the farmers of each of the Western Territories and British Columbia taken action long ago? Settlers are wanted in all these countries; it is to the farmers' interests that they be brought in. The Governments are ready and willing to give any reasonable assistance, but they are the servants of the people, and desire the people to make their wishes known. If the inhabitants, the farmers, the livestock men, do not want the country advertised; if they are opposed to such a course; if farmers do not want settlers or neighbors; if they do not want their lands to grow in value, which they will if the population grows more dense; if the live stock men do not want to extend their markets for pure-bred animals, why should the cabinets stir themselves? These bodies watch the temper of the people; if the country makes a demand, these gentlemen recognize it, and give the necessary assistance. We cannot expect aid unless we try earnestly to help ourselves and make our wants known.

#### How Best to Overcome the Present Agricultural Depression.

(A Paper read before Brandon City Institute by D. F. Wilson.)

Agricultural depression may arise from one of two causes—a failure of crops or an over-produc-tion, which causes prices to fall below a paying figure; or, as is the case with us, the two combined, for while the wheat crop of Manitoba has been a very poor one, our market is governed by the wheat product of the world.

I believe one of the causes of the present state of things in this province has been the craze for wheatgrowing; with many farmers it seems to be their one idea, and they will invest their all in it, and often a good deal more, paying a ruinous interest for the accommodation and then running the risk of

dry weather, frost, etc.

What has been the result? If it were possible to get the figures and make the calculation, I believe it would be found that the wheat crop of the last ten years has cost the farmers more to produce than the wheat has sold for. It is true, some men have made money at it, but they are comparatively few, and have generally been confined to small districts; but numbers of unsuccessful wheat-growers are to be found all over the province. This is a very serious state of affairs, and if I am correct in my opinion, it is not to be wondered at that the subject of to-day's discussion was thought a suitable one.

It has generally been conceded by agricultural authorities who live in, or who have visited this province, that Manitoba is eminently suited for mixed farming, but we cannot say that it has been practised, and we now find that making a specialty of growing wheat has placed many of our farmers in a

not very enviable position.

If we look back at instances where countries have depended altogether on one crop, we find that it often ended disastrously: The famine in Ireland was occasioned by too much dependence being placed in the potato crop, and famines have occurred at different times in the East owing to the failure of the rice crop, which is staple food in several eastern

But while mixed farming might have obviated our trouble to a considerable extent, still I think we may look deeper to get at the root of the matter,

The question is partly a political one, but it is not admissable to discuss it from that point of view here, nor can we at present expect much help in this line from our politicians, there being so few farmers among them, and they lack the fellow-feeling which farmers have or should have for each other

Let us, by way of arriving at a solution of the problem, ask ourselves the question, Are the farmers of Manitoba agriculturists in the full sense of the for profession it should be) is, on the whole, very Manitoba, the west and the provinces by the sea. superficial. What would we think of a doctor who knew as little of his profession as we do of ours? There are some farmers who say that they know all that there is to know about farming; when I come across one who says this, I put him down as knowing a great deal less than his neighbors, who think there is still something to learn. It will, I believe, always be found that these who know the most about agriculture are the ones that see that they have the most to learn. Take, for instance, Sir John B. Laws, of whom it may be said that there is no higher authority on agriculture in the world; he has spent his life, employing a large staff of assist ants, in research and experiments connected with farming, and so far as thinking he has found out all about it, he has made arrangements for leaving £100.000 to continue the work after his death;

If we look around us at men of other vocations. we find them working in a d fferent way to farmers In conversation with a business man in Brandon the other day I said to him. I suppose if you have any meeting in connection with your business you all get there? His reply was, "You bet we do."

I asked a farmer on one occasion to come to an institute meeting. He replied, "I do not want to go and hear so-and-so talk," naming one of his neighbors, a man who is known as one of the best farmers in the district, and who is not at all given to much speaking. Men who give such reasons as this for not attending are enough to cause agricultural

The different vocations have their associations which work for the benefit of their several trades and professions and they are supported by their We ought to be ashamed of

tions. These papers are taken and read, the readers endeavoring to keep abreast of the times by learning all that is new in connection with their business. It is said that there are more agricultural papers taken in proportion to the population in Manitoba than anywhere else in America, which speaks well for the province, but still there is a very large percentage of the farmers who do take them who do not read them, but simply skim through them. Some time ago, on reading an article in one of the two very excellent agricultural papers that are published in the province, entitled "Plant food and plant growth," it occurred to me, How many of the thousands of so-called readers of this paper will read this article? I am afraid a very small proportion of the farmers read anything of this description. A neighbor of mine, a doctor, was a great talker. and among other scientific topics was very fond of talking about his profession. On one occasion he said to me, "When we go about curing a disease we first look for the cause, and that gives the key to the Do farmers do this? Take, for instance, a failure of crop owing to dry weather; anyone knows it was for want of rain, but how few can give a satisfactory answer, if asked, in what way the want of moisture affects the crop. It is the knowledge of the why and the wherefore that teaches us how to farm successfully

In order to make this a great agricultural province farmers need a deeper knowledge of their business, and this can, I believe, be best attained by the introduction of agriculture into our public schools. When a farmer has what is called a smart son, the probabilities are that he soon goes off to some town or city, for from what he has seen around him he does not see anything to expend his abilities on. Show such a boy that there is room for the exercise of his brains on the farm, and the probabilities are that he will stay there and be a help towards putting farmers in the position they should be in. If the boys are taught the first principles of agriculture, they will soon begin to see cause and effect in nature, which will give them food for thought. The fathers also will sometimes hear things said by their sons that may set them

This will not have effect on the present depression, as its working will necessarily take time, but will be more the nature of a permanent cure. Agricultural depression has existed before and will exist again, but if farmers thoroughly understand their profession, there can be no doubt that the trouble when it did come would be decidedly mitigated.

The more a man knows the more he is capable of learning; farmers seldom give their brains enough to do fonce get them to go a little deeper into agrifulture, and we will soon find them taking a pride in it, and it will also have the effect of causing farming to be carried on on business principles, a thing hich, as a rule, is now entirely neglected.

If farmers would study agriculture more and think more, they would soon occupy a very different position in the country than that which they do at present.

### Mr. N. Awrey's Address.

The address delivered by Mr. Awrey, M. P. P., Commissioner for Ontario to the World's Columbian Exhibition, and President of the Agriculture and Arts Association of the same province, is undoubtedly one of the best annual addresses, if not the best, ever delivered by a president of that timehonored body. Not only is it of interest to Ontario farmers, but should be a stimulant to dwellers in

Ontario is looked upon as the banner province by many. In this speech we get a glimpse of the reason; we see why her stockmen are known throughout America. Among all the provinces of Canada, she was the first to take active steps to advertise our country to the world, formerly at Philadelphia and again at Chicago. What her people are doing is clearly portrayed by Mr. Awrey What they hope to do and what they doubtless will accomplish, is also set forth by that gentleman. Manitoba is following in her foot steps as regards the Columbian Exhibition, yet we would have our pooled know what forther is doing and what sorther than the control of the con people know what Ontario is doing, and what sort ef a man her commissioner is. Let us all take note of his wise and patriotic words, and unite in placing. Canada in the foremost rank among the nations What he says of Ontario is doubly true of Manitoba. Her needs are greater and her efforts should be like-

We agree with Mr. Franklin when he says the scheduling of Canadian cattle is an outrage, and disagree with Mr. Awrey when he says it may be a blessing in disguise. It is not a blessing in any shape, nor will it ever be. True, it would be better if Canadians could fatten all store cattle and export them when finished, yet we all know that there are hundreds of men both east and west who cannot do this, and others who will not. The scheduling of the cattle goes only to make their condition worse. The fact remains that these men must now sell at a ess price than heretofore, but the chief grievance is that although Canadians should feed their cattle and ship only the prime fitted beasts, the order members, but the government has to bonus the arrival. It is a great mistake for public men to remains the same - these must also be slaughtered at condone a mishap of this kind. Let them teach has expressed it, "paying them for attending to their own business." We ought to be ashamed of cattle but in your case of their own business." cattle, but in no case should they call a national Then, again, there are periodicals published in the interests of nearly all the trades and other vocations so spoken of by all our public men.

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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, or THE WILLIAM WELD CO., Winnipeg, Man.

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#### 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, arguments, conciseness and conformity with the subject, and not by the grammar, punctuation or spelling.

3.—Should any of the other essays contain valuable 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 agricultural topic. We are always pleased to receive practical articles. For such as we consider valuable we will pay ten cents per inch tone dollar per column) printed matter. Criticisms of Articles, Sug gestions How to Improve the Advocate, Descriptions 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 furnished other papers until after they have appeared in our columns. Rejected matter will be returned on receipt of postage.

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5.—Replies to circulars and letters of enquiry sent from this office will not be paid for as provided by rule 4.
6.—No anonymous communications or enquiries will receive attention

A prize of \$5 will be given for the best essay on the method by which the Manitoba and Northwest farmer may better his condition and home life. Essays to be in this office by February 15th.

A prize of \$5 will be given for the best essay on the reasons why Arbor Day should be observed at Manitoba and the Northwest public schools, with suggestions for the programme of the day. Essay to be in this form of the day. to be in this office by March 15th.

#### The Agriculture and Arts Association.

[An Abridged Report of the Annual Address of the President of the Agriculture and Arts Association, Delivered by Mr. N. Awrey immediately after the Banquet given by the Guelph Fat Stock Show, December 14th, 1892.]

It is a great many years since the Agriculture and Arts Association became one of the institutions of the province of Ontario, established for the purpose of advancing the interests of agriculturists and stock-raisers. I suppose that it is within the recollection of some present when the old Provincial Exhibition was held from year to year in different parts of the province. It naturally had a very beneficial effect on the people. It is true that in the opinion of many it had overlived its usefulness; or, in other words, enterprising places, like the city of of Toronto, established exhibitions which were doing the work formerly done by the "Frovincial". Then the question arose, as far as the members of the Board of the Agriculture and Arts Association were concerned, In what direction shall we devote our energies to accomplish some good to the people? because every person, and every institution, and every organization must give some reason to the people why they should be in existence, or otherwise the Legislature certainly will abolish them. It was wisely suggested, I think, that our work should be extended to holding, as they do in the old land, winter stock exhibitions. The result has been that for a number of years we have held an Annual Spring Show, and in the early winter a Fat Stock Show. After the experience of to-day, I believe that fat stock shows in the province are here to stay. I am not going to say where it will stay; it can be held successfully somewhere, and I do not see why it cannot be held here as well as in any other place. All will agree with me that the preparation of fat stock is one of the most important industries connected with agriculture. The fat stock of this province has been yielding, year by year, a very large revenue to the people. Anything that can be done by the Legislature, or by fat stock associations like you have in Guelph, or the Agriculture and Arts Society, to induce a spirit of emulation among the raisers of stock to breed better cattle for the shambles, is doing a great work. I am sorry to say that the business of

EXPORTING CATTLE TO THE OLD COUNTRY this year has not been so very remunerative, yet there is no ground for discouragement. All we have to do is to produce the very best kind of a fat animal, and the people of England will purchase it at a fair price. British consumers like beef, and they like it to be good; and when they get it they are willing to pay a good price for it. In order to keep it to their taste we must raise the very best. I think there is room for an annual fat stock show very much larger even than you have had to-daybroader, embracing, perhaps, a great deal more than you have embraced within your present show, giving larger prizes—and, after all, the large prizes offered have not induced a large attendance. But it

is the duty of the AGRICULTURE AND ARTS ASSOCIATION,

from this time on, to hold annually a fat stock show, and pay very good prizes to the exhibitors of prize-winners. I take that as being the ground that should meet the approval of the farmers of the province. It is about nine years, I think, since we commenced holding these shows. They were very small at first, but they have grown year by year, until to-day I think we can say we have had a fairly successful one in the city of Guelph. But there is room yet to make it very much superior to what it is, and it is the duty of our Association to endeavor to make it more successful in the future than it has been in the past. Then I think work that is worthy of the attention of our Board is a spring show, where the purest bred animal and best of the various kinds and breeds should be got together, and, if you please, all kinds of cereals. We have more than one kind of show in the province of Ontario, and I think the appropriate old. A grigalture and A rice A rescription the sooner the old Agriculture and Arts Association shall devote its energies to holding purely agricultural exhibitions, without any side-show, the better: and if they do that there is a great future before the Association. I may say that I was one of those in the Legislature who believed that it was time that

PROVINCIAL EXHIBITION CEASED,

and I think my opinion was a wise one notwithstanding some of my colleagues thought differently. I think that the work that it did in times past is being done by other associations; but, as I said before, I think there is a purely farmers' work to be done by this institution that can be done by no other in the province. It has been the custom of the PRESIDENTS, WHEN DELIVERING THEIR ANNUAL

ADDRESS 7.—Letters intended for publication should be written on one side of the paper only.

A prime of the paper only.

A prime of the paper only. in agricultural circles. We have not had a very successful year. Unfortunately for the farmers prices have ruled very low. Perhaps never in the history of the province, or at least for a quarter of a century, have as low prices ruled as do in our markets to-day; and it is true that we have had another

great future good may arise to the people of Canada. I do not know, after all, that it is the very best thing for the farmers of Canada that their cattle should be sent to the old land in the shape that we call stockers. If we mature our cattle, feed them for the shambles on Canadian soil, a greater amount of wealth shall accrue to us than does from that of sending them over the water to be fed. Yet I am prepared, at the same time, to admit that it is going to be a hardship, and that many men who have been in the habit of selling their stockers for export feel aggrieved. I think the action taken by the British Department of Agriculture was unwarranted. want to impress upon you, above all things, to be independent, if possible, and to say that out of your present evil you will strive to attain something that is better. Let every farmer decide that instead of selling his animal at an age when as yet it has not yielded a profit, but has taken out of the soil more than it returned, he will feed it at home and return to the land that which goes to keep up the fertility of the soil. If he does this I venture to say that it will be to his advantage, and yet I say it is a hardship at the present time, simply because there are some men not able to feed their cattle. Then it interferes with another class. Some of you, perhaps, who sell your cattle to other men to fatten, are going to be injured by our cattle not being allowed to enter the Old Country; because Mr. Dryden, for example, or Mr. Hobson, or any of the wealthy farmers, can do now what they could not do before the cattle were scheduled—that is, they can buy from you much cheaper, if you have to sell them, than they could before, because stockers cannot go to Britain to be fattened, and we are compelled to sell in a limited market. In this particular it has been rather unfavorable, prices ruling low, our markets the poorest they have been for years, our cattle scheduled, and wool being a very low price. All these things are calculated to make the farmers feel that their lines are hard, and yet I want to say to all, you have no reason to feel discouraged for the future of Ontario. I have travelled—some of you have travelled a great deal more. I think from the Atlantic to the Pacific oceans, from the furthest point south to the furthest point north on the American continent, that there is not so fine a country as we have in Ontario. Now I have led up to this point, because I want to induce you to believe that you are a great people, as you are, and have great possibilities in the future, because I want to talk to you about another subject, viz., your duty in assisting to make the exhibit from the province of Ontario at the

WORLD'S COLUMBIAN EXPOSITION

a creditable one. One of the officials of the Exposition said to me the other day, "The only province or the only country on the face of the earth that the American States are afraid of is the province of Americans know the quality of our land —they have learned to appreciate the value of our flocks and herds. They have been taught by experience in the past that we have here a soil and a climate which enables us to produce grains which can compete with any part of the United States, and they have learned more than that,-they have learned that here in Canada we have the finest climate, and as fine a country for the rearing of firstclass stock. They know more than that—they know that the people of the Western States for many years back have looked to Ontario as the ground from which they could draw the best animals for breeding purposes; and, as one said, "We purpose to wrest from Canadians, if we can, at this Exposition, that prestige, so that in future one or two states may be considered the one point from which those desiring first-class stock can get their animals after this Exposition." Canadians will be unworthy of their past record if, with the opportunity they have, they do not show the people of the United States and Great Britain what they can do—fi they allow this opportunity to pass by and do not avail them-selves of it, and teach the Americans that after all we have the men, the climate, the means, the desire, and the determination to hold the country second to no other on the globe. I may say for your encouragement that in the

#### CITY OF NEW YORK,

at the horse exhibition, where the finest thoroughbreds that tread the earth were assembled, where they offer the very largest prizes ever offered, that it was a horse owned by a Canadian that took the first prize over allcomers. This was creditable. Then let me tell you, at the Detroit Exposition, when it came to sheep, that in one of the classes Canadians took all the prizes—first and second, with one exception, and would have taken that but for the want of sheep to exhibit. I can tell you more; in poultry, that part of the farmer's stock so dear to the hearts of women, with the finest exhibits from the United States, where even one mar. had gone to the expense of importing from England to beat Canadians, that out of twelve hundred dollars of prize money Canadians took about eight hundred, and would have taken more but that we sent not the hens and roosters to compete. Now, what we can do, and will do, depends altogether upon our farmers. If by united energy and determination to succeed they do the very best they can with the stock selected to be exhibited in Chicago, I venture to say that when the Exposition is over Canada will be known the world over better than blow.
OUR CATTLE HAVE BEEN SCHEDULED,
as far as entrance to the old land is concerned. Now,
I may say I believe that out of the present evil a

it is a cold, barren, bleak country. Their impressions have been largely received from pictures of ice palaces and fur clad individuals. When they see our fruit exhibit it will show them and make them understand that we grow in great quantities delicate and delicious plums. Canada has peach orchards where the luscious fruit can be had for the picking. Our vineyards cover broad acres, the fruit being unequalled on the face of the earth. This will teach the people of Europe that here in Canada is the very spot where they should, and will, pour the thousands from their over-crowded borders. Here we have room where these can win for themselves homes, which will not only be pleasant, but where the land will produce that which will make them contented and happy. We in Ontarie have

TWO THOUSAND JARS

of fruit, holding from a quart to a bushel and ahalf, some of them so large that we can insert a branch of a pear tree with the fruit on it, where the foliage is kept in its natural color and where the bloom is retained on the fruit. We purpose to show them that, from the earliest strawberry up to the hardiest apple, we have in Ontario lands where the tenderest fruits can be grown, and other places where the most valuable fruits for exportation can be easily produced almost without limit. I think this will be the best immigration agent that we can send out. Then let me tell you what you will have to compete against. There is not a state in the American Union, as I told you before, but has determined to outdo this fair land of ours. If we wish to hold our own, we must prosecute this work with vigor. Every Canadian should lend a hand. I hope when the history of this Exposition comes to be written, it will be said of Canada that she has borne herself well. I have great faith in my country. I believe we all have. One of the ablest American writers, in describing this province, said, "She is blessed by Providence with the finest climate and most magnificent scenery, and the richest soil to be found on the American continent. In fact, she is a country that has not only the finest stock, but produces the finest men and most beautiful women. Such a country, described by such a writer, is one that we should not fear for its future, and I want to say a word here. The farmers are

#### SAID TO BE THE GRUMBLERS.

I know that it is a subject of remark "that the farmer always grumbles; that he grumbles with the sunshine, and when it does not; and when the land is very fruitful, and when it is not." We are called the grumblers of the earth; but the future of our country depends upon us, because, after all, we are the foundation upon which must be built the success of all other callings—the manufacturer, the lawyer, in fact, every man living is dependent upon us for his success. The keeping of our country is entirely in our hands; do not let it be said, if the historian ever has to write of dissatisfaction in this land, that farmers were the ones who became dissatisfied with the country. Be true to your land and its form of government. Punish the men who rule it, if they do wrong—if they wreck the country's Blame them, but do not blame your country or your country's constitution, because we have the finest constitution; we have the noblest form of government; we are partakers in the greatest blessings on the face of the earth, and our country is an heritage that we ought to love and protect.

### A Change in the Chief of our N. W. Staff.

Ill health has caused Mr. Wm. Thompson to resign his position as managing editor of the Manitoba and Western edition of the Farmer's Advo-CATE. During his regime he did good and lasting work in the province. Mr. George H. Greig, late of Otterburne, has succeeded him. This gentleman was born in Oxford County, Ont.; his father, Major Greig, was a well-known breeder of Shorthorns and Ayrshires. At an early age the young man decided to follow agriculture. To prepare him for his future work he was sent to the Ontario Agriculture College, where he remained until he graduated. Soon after this he and his brother, Mr. R. W. Greig, came to Manitoba and took up a large tract of land near Otterburne. This they at once set about improving, and soon had a considerable area under cultivation. As soon as practicable commodious stables were erected, and a herd of Shorthorns established, which is to-day one of the largest herds of Bates-bred cattle in Canada. They have also a large and well selected herd of grade cattle. Their farming operations have been well and successfully conducted. Mr. George H. Greig was an active promoter of the Manitoba and Northwest Cattle Breeders, Association, and is a member of the Dominion Shorthorn Breeders' Association, and is also an active member of the executive committee of the Central Farmers' Institute; as such he has been successful in organizing vigorous local institutes. The practical and scientific education which he received in Ontario, together with twelve years' experience in Manitoba, has admirably fitted him for the position he now fills. Well read, honest and industrious, we fully expect him to do good work or the position he now hils. Well read, honest and industrious, we fully expect him to do good work for the farmers of the west, and as one of themselves we expect the western farmers to rally around him, and give him all the assistance in their power.

| Active the butcher. | Borthwick, Win. Morrison. James Bonny and Win. | Comer. auditors; C. V. Helliwell, secretary-tread the feeding, which is the most profitable, part of the show be held in the town of Morden, October 4th | Work, many farmers sell their animals. Mixed farms.

#### How Best to Overcome the Present Agricultural Depression.

Paper read by Mr. Bedford before the Brandon City Farmers' Institute.

Farmers as a rule are credited with being persistent grumblers, but I am sure with No. 1 hard at 50c. per bushel, and cattle 2c. alb., there is reason for complaints, for the profit to the farmer at these prices is very small indeed, and the fact that farmers thorough the world are generally suffering from the same ause is very poor consolation.

Many reasons are given for the present extremely low prices of all kinds of farm produce, some of them reasonable, others quite ridiculous. Probably the principal cause is the readiness, in this age of steam and electricity, that all kinds can be transported to the large centres of trade so quickly, for as soon as any shortage takes place the news is at once telegraphed all over the world and supplies are quickly sent from nearly every part of the globe cold storage assisting to this end. So you see that we are sufferers largely through the increased civil ization of our time, and we will have to bravely face the difficulty.

We will now discuss some of the means by which we can overcome, or at least lessen the evils conse quent on the present depression. In attempting this shall not try to exhaust the subject, but simply throw out a few suggestions, some of which may

prove useful. I hold that the remedy must naturally be of either three directions, viz:—"In increasing the selling "Lowering the cost of production;" or in so liversifying our farming that every year we may

have some product that can be sold at a profit.

Now in regard to the first. I consider that the selling price is beyond our control, and will have to be left largely to the regulations of supply and

The cost of production, however, is to a large extent in our own hands, and can be lessened. First, by getting larger yields per acre. Secondly, by utilizing the waste of our productions of the farm.

Is it not a fact that we are not raising anything like the amount per acre that we ought to do if our land was in the shape it should be. On some of the clean, well-farmed land on the exprimental farm the returns this year were 35 bushess of Red Fyfe per acre, while on poorly farmed land in the same field, the yield was under 17 bushels per acre, a diff-

erence of 18 bushels per acre Now in regard to quality! In certain years the best of management will not prevent frost, but we all know that many a two-horse farmer undertakes a four-horse crop, and he is then surprised that a portion of it is frozen. There is one source of loss which is completely under the farmer's control, that is loss from smut Any person who in this enlight-ened age refuses to blue-stone his seed wheat deser-ves to lose from ten to twenty cents per bushel, for he not only risks loss to himself but also risks injuring the reputation of the wheat of the province So far eight tests with blue-stone have been made on the Experimental Farm. In every instance the blue-stone has effectually killed the smut. So that

there is no excuse for smutty wheat. We now come to the question of the utilization of the waste or by-products of the farm. If you were to ask J. A. Christie, our local lumberman, to draw the slabs, or even the saw-dust, from his mill to a pile and set fire to it, he would laugh at you, and say "that the returns from slabs and saw-dust pay a large portion of his running expenses," and if he took your advice in burning his refuse he would have to close up his business. The same with our have to close up his business. flouring mills. They never think of burning bran just because it is a waste product. Farmers in the country are not so particular, and thousands of dollars are wasted every year by the burning of straw or chaff, and it does appear to me a shame and a disgrace to burn such bright clean wheat straw as we generally have done here. We found last winter on the farm that, providing we had good clean straw or chaff, we could entirely dispense with hay in feeding cattle. At the present time we have a cow giving 57 lbs. (nearly three pails) of milk per day, and she never gets a pound of hay.

Again, farmers allow elevator men to dock them for screenings, much of it small wheat, and then present it to them to send east, or burn as they see fit.

This leads me to the last, but not least, important subject of my paper viz:—diversified, or mixed farming. Judging by the aversion shown by many farmers to keeping stock, one would think that it was a very disagreeable business, or that cattle sheep and swine did not thrive here, instead of which, stock, properly attended to, adds interest to farming and I think I am safe in saying that in no part of the Dominion do all kinds of cattle thrive better than in this province. Our winter is no longer than in Ontario, pasture is plentiful and practically free, both hay and coarse grain are cheap, and straw and chaff of the best quality are abundant.

I do not say that all should go into any one branch

of stock raising, but let each follow the line most suited to his taste. Some farmers will never suc ceed with dairy stock, but would make money feeding steers. Others would fail with sheep, and succeed with pigs. Expensive females are not necessary, but pure-bred males should be used. While I am on the subject of feeding steers allow me to point out the folly for selling poor thin stock-

ing is not only the most profitable but money comes in during every month of the year. With stall-fed cattle in spring, wool, mutton, butter and eggs in summer, and pork and poultry in early fall, the farmer is always ready to pay cash for his supplies and need not either run an account at the store or borrow from the banks at a high rate of interest.

To sum up. Don't sow more land than you can work well and can properly attend to. producing the largest amount per acre of the best quality. Always blue-stone your seed wheat. Suply yourself with stock of some kind as quickly as you can house them. Stack your straw, it won't take much time or room. Don't drag it and the weed seed all over your farm; weeds will get there quick enough. Clean your wheat before delivering it.

#### Brandon Farmers' Institute.

A special meeting of this institute was held Saturday, December 17th. Mr. Rutherford was to have given an address on horse breeding, but being ill Mr. McNaught, of Rapid City, took his place and read an excellent paper on "Feeding and Watering the Horse," illustrating what he said by diagram of digestive organs of the animal.

He gave a list of the available horse foods of the province, and said that though wheat was generally considered injurious, he had not found it so in this country, having fed frozen wheat in large feeds with very good results; barley was also very suitable when oats were scarce. For an average farm horse of say 1,200 lbs., when at work, a gallon of oats three times a day, with a gallon of bran at night, was as much as he ought to get in the shape of grain. He did not think it was a good plan to feed oats and bran together, as the bran had a tendency to make the horse bolt his oats. Crushed oats were good; bran, as a mash, was inclined to scour, but if fed dry had not this effect, as it could not be eaten so fast. Horses not working could be economically fed on cut straw with chopped grain. If running at wheat straw they should get plenty of salt. Broncos are all troubled with worms, which disappear when

they are fed salt. Water for horses should not be too hard, and if drawn out of deep wells in summer should stand in the sun to warm before being given to them. time of watering horses was of the greatest im-They should always be watered first thing in the morning, and always before and not after feeding. If coming in hot from work give half a pail, let them eat hay for awhile, and then water before feeding them their oats. If watered after feeding, it prevented the digestive organs from assimilating much of the nutriment that was in the grain. When grain was the last thing fed, a horse would never be ravenously hungry after five hours' work. He had had twelve years' experience in Manitoba, and had never lost a horse from any cause connected with his feeding. Boiled barley was a laxative, and might take the place of bran, say twice a week. The best roots were carrots, they would not hurt a race horse in training; but to keep a horse in good health nothing was better than salt and bran. In the Old Country they considered the best time for a hard run was two hours after feeding, but with the farm horse it was different; it did not hurt him to go to work as soon as done feeding. He had, however, the greatest objection to giving a horse all he would drink just before going to work.

Mr. Nicol found whole oats best for horses at work; crushed oats were inclined to scour working horses, but were most suitable for idle ones. He gallon of oats when chopped measured nearly a peck.

Mr. Cox agreed with Mr. McNaught throughout, with the exception of feeding bran and oats together. He thought that the bran made a horse masticate his oats better.

Mr. J. D. McGregor said that in his case at present the object was to get their stallions in good ondition, but as they were standing in the stable they had to be very careful how they fed, for if they gave them a little too much rich food it would soon affect their colts in the legs.

The meeting closed with a vote of thanks to Mr. McNaught.

#### Meeting of the Cypress Electoral Division Agricultural Society, No. 1.

A meeting was held at the Queen's Hotel, Glentore, of the above Society, on Saturday, December 10th, 1892. The meeting was not large, but those present took a lively interest in the Society, and the business was promptly carried out, Mr. D. Steel, president, in the chair. Mr. J. Axford, secretary, read an estimated account of the receipts and expenditures for the present year, and taking into consideration that they have built a fine hall, at a cost of \$400, when the subscriptions are collected there will, no doubt, be a favorable balance to carry over.

The annual meeting of the Morden Electoral Divi-Agricultural Society was held in the Queen's Hotel, Morden, on December 12th, Dr. McConnell in the chair. Moved by J. A. Wright, seconded by J. T. Hutchinson, that the annual auditors' report as read be adopted. Carried. The following officers were elected for 1993:—J. T. Hutchinson, president; Wm. Topley, 1st vice-president; John Sweet, 2nd vice-president. Directors -Dr. McConnell, V. Winker, Thos. Shortreed, J. A. Wright, I. A. Cowie, John nard, and if ild stand in them. reatest imatered first re and not rk give half then water tered after s from assiwas in the fed, a horse five hours perience in n any cause rley was a n, say twice they would t to keep a er than salt sidered the after feedrent; it did ne feeding. to giving a ng to work. r horses at ur working ones. He

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JANUARY 20, 1893

A Cow for More Than One Purpose?

BY JOHN TAYLOR, JR.

Yes! you may have a cow for more purposes than one, but will it pay? I think not. The profit made in one department will be eaten up by the loss of the other. A cow may be paying as a beef raiser and be running the owner into debt every day as a

In your December issue, page 471, your corres pondent, "A Stock Breeder," ridicules the idea of a special purpose cow. In the first part of his letter he appears to be very impartial, and speaks as though he were not especially interested in any of the several breeds, and winds up by giving a lot of figures to prove that the Shorthorns are "the cows." So much for his figures as far as they go; they would prove that if it is bulk of milk you want, regardless of cost, the Shorthorn has the advantage. Because a big Shorthorn cow gives more milk or butter than the little Jersey or Ayrshire is no proof that she is the most profitable. If you can keep three Jerseys on the food consumed by two Shorthorns, and each Jersey gives as much milk or butter as a Shorthorn, which breed will pay best? Men differ in strength, and the strongest man may be the smallest consumer of food. The same holds good in milk production. The New Jersey station has been conducting tests to find out the actual profit derived from each of the several breeds as butter producers. They found that the Gurnsev group earned in one month \$67; the Jerseys, \$66.75; the Holsteins, \$60, and the Ayrshires, \$47, and that the actual profit from the Gurnsey and Jersey groups was \$22 each, and that the Holsteins and Ayrshires had less than \$5 to their credit when the food was paid for. This test was for butter. It will be seen that the Ayrshire earnings were the lowest as a butter producer; the Holsteins and Ayrshires might have made a better showing as milk or cheese pro-

This goes to show that we must not be led away with the idea that because a cow milks well she is profitable. No; I believe in special farming. Let every man consider his individual situation as to which line of farming he is prepared to follow, and go into it and make a specialty of it. If he is so situated that he can make butter or cheese profitably, he should have ambition enough to excel in this line. If his situation is better for beef production, let his aim be to own a herd of good beef cattle. I hold that if it is butter or cheese he is after, to make the most out of it he must keep a special dairy breed, and aim to have the very best as milk or butter producers—not a cow whose tendency is always on the side of beef. Take the Shorthorns, Herefords and Galloways generally, they will not continue the flow of milk long enough to be profitable; you may feed them heavy, and they will lay on the beef-it is their nature.

"Stock Breeder" says that "the dairy cow must be fed before her carcass will be moderately presentable when hung up in the shambles." Well, I never would be good beef.

"Beef will be wanted as long as the world lasts. Are the people going to stop eating butter and cheese? Not by any means. The beef-producing territory is enlarging as the prairies open up. This large extent of territory is to-day very extensively engaged in ranching, and is producing vast quantities of beef, and overstocking the market, and keeping down the prices. Not so with butter and cheese. There is a good demand to-day for a good article, and there is no danger of Texas and some other prairies over-stocking the market with butter and

"The special beef cow must give a little milk at certain periods, and in such quantities as will not pay to throw it away." No, it will not pay to throw it away; the less she gives, the more expensive milk it is.

I have found from experience that the cow for more purposes than one, or the cow that would raise good beef, would soon eat her head off, compared with the special dairy cow as a milk producer. I do not think that beef and butter or cheese can be profitably produced together; the profits (if any) you will make out of the one will be more than eaten up by the loss on the other. I think that the farmers of the older sections ought, as far as possible to raise butter or cheese in place of beef. Beef can be produced cheaper in the West than we can raise it. We have a good climate for dairying, and there is no danger of the ranches overstocking the markets with cheese and butter. The good article will always be in demand. We should make nothing but the best; it costs no more to manufacture good than a poor article.

#### Roll the Snow.

After a heavy snow storm the roads can be made passable by rolling them with a land roller. If there are "pitch holes," or if the surface is uneven, harrowing will be found of service. In Quebec the above has been the practice for many years.

#### Elaboration of Milk.

BY H. H. DEAN, ONTARIO AGRICULTURAL COLLEGE, GUELPH.

All organized bodies are an aggregation of cells. A cell is the smallest particle into which a plant or animal may be divided. "Cells possess the properties of nutrition, reproduction, growth, development, and, in many cases, their contents are capable of motion and manifesting irritability." The udder of the cow is a gland made up of numerous vesicles (cantics) which consist of a membrane lined with epithelial cells. These cells are the secreting organs or the seat of the changes by which milk is produced. A number of these vesicles gathered together form what is known as a lobule, and lobules united form a lobe which is surrounded by connective tissue, having a common outlet into the milk cistern situated at the upper portion of the teat.

Besides cells, the mammary glands consist of fat, blood, nerves and muscles. There are two glands which lie alongside each other, separated by a fibrous partition. It will be noticed that the cow's udder is divided lengthwise, not across the udder. Each gland has two outlets (on the side), and sometimes three. The whole is covered by the outer skin of

Exactly how milk is secreted or elaborated we do not know. There are two theories put forth in explanation of the process. The first one, known as the "Transudation Theory", assumes a simple filtering of the constituents of the milk from the blood through the gland, and a turning of them into milk by this process. The objections to this theory are put thus by Aunsby:—"The milk is not simply secreted from the blood, like the urine in the kidneys, or the digestive juices in the stomach and intestines, but is formed in the mi k glands from the cells of the gland itself—it is the liquefied organ. This is shown even by the composition of its ash, which, like that of all tissues, contains much potash and phosphate of lime, while the fluids of the animal body are poor in these substances and rich in chloride of sodium (common salt); the ash of milk contains three to five times as much potash as soda, while the ash of blood, on the other hand, contains three to five times as much soda as potash. Was the milk simply a transudate from the blood, it would have a similar composition, and could not serve as the exclusive food of the young animal, since it would not contain all the elements necessary for growth; but since it is a liquefied organ, it is exactly

adapted to build up other organs." The second theory, known as the "Metamorphic" (change of formal shape), assumes that the milk is formed in the gland by the decomposition of the cells of that organ. Professor Sheldon says that a combination of the two will probably give the most satisfactory explanation, and this is more apparent when we consider the sources of the various constituents of milk. Neither casein or milk-sugar are saw the cow yet that had not to be fed before she would be small be added to be fed before she would be small b is not there in sufficient quantity to supply the fat of the milk. "The milk-sugar, casein, and fats are all formed by the direct activity of the epithelial ells as a result of the decomposition of their protoplasime (first formed) contents or their action on the food constituents in the blood. The other constituents of the milk, the water and salts, evidently result from a direct process of transudation from the blood, with the exception that without doubt, a certain percentage of the potassium salts, and phosphates, like the specific milk constituents, originate in the metamorphoris (change) of the protoplasm (first matter) of the secretory cells."

From the preceding we would judge that the character of the gland has considerable influence on the quantity and quality of milk produced by a cow. Other things, such as food, surroundings, method of handling, period of lactation, frequency and regularity of milking, are all supposed to contribute somewhat towards the quantity and quality of milk. As to the effects of food upon milk, see Bulletin 80, Dept. Agr., Ont. Two experiments are here re ported; showing the effect of frequent milking (three times a day) and milking each gland by itself. That is, instead of milking the two front teats together, and then the two hind teats, which is milking a teat of each gland, the cows were milked two side teats at a time, or a front and a hind teat at once.

MILKING THREE TIMES A DAY. To see what effect milking three times a day

would have, we selected two of our largest milkers and milked them at 5 a. m., 11 a. m., and 5 p. m. of each day for two weeks, beginning June 23rd. Pre-yiously each cow had been getting one pound of bran and two pounds of barley meal a day, in addithere times a day their daily meal ration was increased to 2 lbs, cottonseed meal, 2 lbs, pea meal, 2 lbs, bran, fed one-third morning, noon and evening. 2 lbs. bran, fed one-third morning, noon and evening.
The yield of the two cows for the two weeks previous was: Artis, 819 lbs. milk; 2,93 per cent, fat; 24 lbs.

fat. No. 13, 531 lbs. milk; 3.50 per cent. fat; 18.59 lbs. fat. When milked three times a day their re-

|   | COPILIOF LWO WEEKS Was, | No. 13.—       |                 | _Artis                  |               |
|---|-------------------------|----------------|-----------------|-------------------------|---------------|
|   | Time.                   | Llbs.<br>milk. | Av.<br>p.c. fat | Lbs.<br>milk.           | Av.<br>p.c.ft |
| , | Morning                 |                | 4.18            | 357.5<br>180.0<br>172.5 |               |
|   |                         | 549.0          | 3.87            | 710                     | 3.03          |

The total fat given by No. 13 in the two weeks

was 20.27 lbs., and by Artis 20.80 lbs. For the two weeks following July 6th, when the milking three times daily ceased, these two cows were fed the same quantity of meal twice a day as they had been previously getting three times a day, and were milked twice a day—at 5 o'clock morning and evening. Their record was:

| and evening. | No. 13        |                 | Artis         |                 |
|--------------|---------------|-----------------|---------------|-----------------|
| Time.        | Lbs.<br>milk. | Av.<br>p.c.fat. | Lbs.<br>milk. | Av.<br>p.c.fat. |
| Morning      |               | 3.47<br>3.62    | 308<br>299    | 2.72 2.80       |
|              | 100           | 9 55            | 607           | 9.76            |

The total fat given by No. 13 was 17.06 lbs., and

It may be interesting in this connection to note what difference there is between the total amount of fat credited to our cows by testing them two days in the week, and the actual amount of fat produced, as shown by testing them every day. In our regular dairy work the per cent. of fat in each cow's milk is determined on Monday evening and Tuesday morning, and Friday evening and Saturday morning, which tests represent the quality of milk produced during the week. Taking the tests of these two during the week. Taking the tests of these two cows on the days mentioned, from July 7th to 20th, No. 13 would have been credited with 18.39 lbs. fat—actual yield 17.06 lbs.—and Artis 17.85 lbs. fat—actual yield 17.87. In the case of the one cow it gives almost exactly her yield, and the other would have been credited with .79 lbs. more than her yield.

SUMMARY. By taking the average total pounds of milk and fat given during the two weeks previous to and after the milking three times a day, we should have a fair basis on which to compare the results of milking twice and three times. No. 13 gave 510 lbs. milk and 17.83 lbs. fat as the average of the periods preceding and succeeding the experiment. During the experiment she gave, in the same length of time, 549 lbs. milk and 20.47 lbs. fat—an increase of 39 lbs milk add 2.44 lbs. fat. Artis gave 713 lbs. milk and 20.44 lbs. fat, as the average of the two periods, when milked twice a day, and when milked three times a day she gave 710 lbs. milk and 20.80 lbs. fat—a decrease of 3 lbs. milk, and an increase of 36 lbs. fat. crease of 3 lbs. milk, and an increase of .36 lbs. fat; in other words, her yield was about the same when milked three times a day as when milked twice.

This experiment would seem to indicate: 1. Frequent milking increases the percentage of fat, as both cows gave a higher percentage in their milk at noon and evening than in their morning The average of these two, and also of the three milkings per day, was higher than their general average when milked twice a day. The effect on the total fat or butter was to increase it in the case of one cow, while it remained about the same in the

2. One cow gave more milk when milked three found in the blood, consequently they could not be times a day, and the other gave less, presuming that

3. It would not pay to continue milking these cows three times a day for any length of time, as the cow soon regulates herself to normal production. It may pay for a short time by keeping the cow at high pressure.

MILKING EACH GLAND BY ITSELF, OR THE TWO SIDE TEATS AT ONCE, INSTEAD OF A FRONT AND A HIND TEAT.

The two cows used in this experiment, which commenced Nov. 14th and continued two weeks, had been milking for some time. One calved April 15th, and, consequently, had been milking about seven months, and the other calved March 27th, and had been milking about eight months. We should naturally expect these cows to decrease in their milk, owing to the advanced period of lactation. During the two weeks previous to the experiment Cherry gave 267 lbs. milk, containing 4.67 per cent. fat, or 12.47 lbs. fat (about 13½ lbs. butter). For the same length of time, during which gland milking was practised, she gave 266 lbs. milk and 4.56 per cent. fat. This would be 12.13 lbs. fat, or about 131 lbs. of butter practically the same as for the two weeks previous. Dairy Queen gave, previous to the experiment, 250 lbs. milk, with 4.62 per cent. fat—11.55 lbs. fat; about 13 lbs. butter in two weeks. When gland milking was done for two weeks she gave 228 lbs. milk, 4.07 per cent. fat, 9.27 lbs. fat; about 10‡ lbs. butter. The effect of milking eight months showed itself markedly on this cow. Some might say, You should teach your cows to milk ten or eleven In reply I would say that we do not care if a cow milks but four months if she will give us from 6,000 to 9,000 lbs. of milk in that time, and make from 250 to 400 lbs, of butter. A cow that will give 8,000 lbs. of milk in six months is more valuable, tion to good pasture; but when we began milking other things being equal, than a cow that gives 8,000 lbs. of milk in ten months, because she would save four months, stripping, and time is money. As

#### Weeds.

BY J. HOYES PANTON, M. A., F. R. G. S. SCROPHULARIACEÆ (Figwort Family).

Many of the flowers of plants in this order present a somewhat irregular appearance, showing a sort of two-lipped structure, as seen in the snapdragon.

Verbascum Thapsus (Mullein).

This common plant by the wayside is too well-known to require minute description. Its coarse, hairy-like leaves, the long spike covered with yellow flowers, serve to identify it readily. It is a biennial, and can easily be got rid of by pulling when young. Its presence is always taken as an evidence of slovenliness and negligence on the part of those near whom it grows.

Veronica arvensis (Field Speedwell).

This is common in the fields as a low-growing plant of spreading nature; the stem hairy; three to eight inches high, with small blue flowers. Cultivation soon destroys this annual.

Veronica peregrina (Neckweed).

This is a great garden pest. It is becoming very common and spreads rapidly. It bears white flowers; is low growing and spreading in character. It has some resemblance to chickweed, but the flowers are much smaller.



Linaria vulgaris (Toad flax) Fig. 27

This is a creeping perennial; spreads rapidly, and in some places is becoming a troublesome weed. The thin, smooth, pale green, crowded leaves, on stems one foot high, covered with pale yellow flowers. having an orange centre, give the plant a striking appearance. Owing to this combination of color, the name butter-and-eggs has been applied to this plant. It bears many small black seeds, and generally grows in patches, which should be thoroughly hoed and the plants never allowed to get sunlight.

Verbenaceæ (Vervain Family).

Verbena hastata (Blue Vervain). This is the only species we shall

notice in this family, and is not a bad weed, but is comparatively common on low ground near streams. The plant is three to four feet high; leaves two to three inches long, much longer than broad, and toothed along the edge.

The small blue flowers are very irregular in appearance; grow upon spikes that are quite numerous on each plant. The stems have a purplish appearance, and are quite shrubby.

#### Labiatæ (Mint Family).

A very large family, chiefly herbs, with square stems, and generally very aromatic. The flowers are irregular, mostly two-lipped in appearance. The family is valuable for its medicinal properties; in it we find such plants as mint, sage, thyme, etc.

Leonurus Cardiaca (Motherwort).

This a common weed in waste places, and is seldom if ever seen in cultivated fields. The leaves of n stem are quite unlike those which appear in the early part of the season. It is a difficult plant to describe so that the ordinary reader can identify The most striking character is in the leaves, the lower being large and palmately lobed, somewhat like the maple, and the upper three-cleft; the upper lip of the flower is bearded and purple. It is a perennial, and grows from one to three feet high.

#### Nepeta Cataria (Catnip).

Though classed among weeds, it is not a very obnoxious one, and seldom finds its way to the fields, but seems to linger about stone heaps or fence corners by the wayside. Cats are very fond of it, and will travel quite a distance in search of it. The whitish, small, irregular flowers appear in late summer in clusters or spikes at the end of the branches. The leaves are oblong, heart-shaped, and the plant is of a soft, downy-like appearance.

Branchis vulgaris (Self-heal).

Very common in low fields, low spreading, with oblong leaves and three flowers under each of the broad and round purplish bracts of the head; flowers, bluish purple. Though perennial, it is not troublesome to any great extent.

Borraginaceæ (Borage Family).

Here we find some of the plant "tramps" of nature. The weeds here have a rough, uncouth, unpleasant appearance, their form, structure and smell in most cases being very unattractive; yet, in this family, there are some respectable members that serve to give it tone. Here we find the burs, stickseed and beggar's lice, the heliotrope and forget-me not. The plants of this order are mostly rough and hairy, producing hard seeds, usually four to a flower; flowers are arranged on one side of the stem; the juice is bitter, and sometimes mucil-

Cynoglossum Morissoni (Beggar's Lice).

A kind of small bur, which is troublesome by getting into the wool of sheep, and sometimes stick-ing to the clothes of man. The seed is about once are sincere in asking this question, it is our duty, as



Fig. 28

third the size of a wheat grain, and is covered with prickles. The plant grows about two feet high; is common in woods, and seldom invades the fields; flowers a pale blue, something like those of the forget-me-not. Cutting down wherever found will soon kill out this biennial.

C. officinale (Common Hound's-tongue) Fig 28. This weed is our com-

mon coarse burn by the wayside; reddish purple flowers; large rough, flat, prickly seeds. It grow about two feet high. You seldom find it grow ing in cultivated fields, but frequently in the

fence corners, where it becomes a nuisance, on account of the seeds sticking to sheep. Being a biennial, spudding it below the surface will destroy it.

#### How Best to Overcome the Present Agricultural Depression.

An Address delivered by James Elder, of Virden, before the Brandon Farmers' Institute.

(CONTINUED FROM PAGE 9.) There are Next, we must curtail our purchases. two words in the English language, each composed of four letters, which in a general way mean the same thing, but at the same time have a vastly different meaning. If a man adopts one as a basis of his purchasing he will go down, whilst if he adopts the other he will be apt to succeed. These two words are "Want" and "Need." If a man buys all that he wants, look out for the bailiff. If he buys nothing but what he really "needs," he will be surprised at the reduction he can make in his annual expenditure. And with this end in view, let us use as little as possible the credit system soprevalent in Canadaa system which, although in some cases a necessity. has at the same time much to do with the present

pinched condition of our people. Many an article which is bought during the summer, in view of a good crop, could and would be disensed with if the hard cash had to be paid for it. With the same end in view, let us give the machine agents and the organ peddlers a wide berth. By that I do not mean to say that we should not have a supply of the best machinery in the market. But surely we are capable of judging for ourselves what we need and when to buy. And I think that a good rule for a farmer is never to buy from an agent when he calls at the farm. Many who to-day are receiving the attentions of the bailiff will tell you that they could have done without the article for a year or two, and had no intention of buying, but were persuaded by the agent who offered "such liberal terms," and before he was out of sight they regretted that they had given the order.

For my own part, I never give an order to a calling agent, but when I have, after calm deliberation, without the aid of this self-constituted, philanthropic advisor, concluded that I need a certain article, I go to town and buy it, and have never found any difficulty in finding a dealer

Agents may think this plain talk, but I have a brother an agent, and they say he is a good one-

a rather doubtful compliment.

The next point to which I would refer is one for the remedying of which I have less hope, simply because our party prejudices prevent us from taking an impartial view of it. I refer to our trade rela-I know that I will be met by some with the tions. I know that I will be met by some cry, "No politics in the Institute." I think that is a foolish cry. If you say, "No partyism in the Institute," I say amen to that. But we are farmers, and farmers constitute by far the majority of our population, and no class of men in the Dominion have a better right to discuss the political questions of the day than we have. But we cannot do so be ause our party prejudices interfere, and those who, by means of rings and combines, are sucking the very blood from our veins, take advantage of that in order to have the political machinery run in their own interests. What would you think of a man who, on account of being troubled with a cough would call a doctor, and allow him to sound him all over, except just over one lung, because he was a little ticklish just there; and yet that is just the position taken by those who cry, "No politics in the

It is all very well to say we should discuss plow ing, sowing, pickling, stacking, etc.; but when the manufacturers meet, do they confine themselves to asking the best material for bushing, the best kind of knotter, or the most durable journal? No, sir. The all-absorbing question is. How shall we fix the tariff so that the farmers may be made hewers of wood and drawers of water while we become millionaires? And when the farmers can meet in the same way, and, casting aside the party prejudices their day, were principles founded upon questions will be for our mutal benefit, then, and not till then.

honest men, to lay aside our party names, and calmly look at the political, as well as every other phase of the question, and if we find that the policy of our party conflicts with our interests, let us sever our connection and vote for our interests.

And since you invited me to come here and discuss this question, I claim the right to speak my

mind without hesitation.

Personally, I believe that one of the most potent causes of the present depression is the existing protective tariff, which debars us the privilege of choosing our own market either for sale or purchase. Why do we find so many first-class, intelligent western farmers buying American binders, and pay ing forty dollars (\$40) each extra for them? It s either because the binders are superior, or because those farmers are absolute fools; and whichever way you put it, if I desire an American machine, why should I not be at liberty to buy it without paying a fine under the name of duty? Of course, the reason given for the adoption of the system was to build up the manufactories, and thereby increase our population and secure home consumption for our products. That system has been in operation for nearly fourteen years, and now we ask, Where are our manufactories? Where is our increased population? "Echo answers, where?"
We were to foster our "infant industries." But

whilst we were rocking the cradles, and benefitted politicians were singing a sweet lullaby, some of our infants have died," and those who have lived have changed into monsters called rings and combines, which now stand with their heels upon our necks, whilst they drain the blood out of us. Why, I ask, should we farmers stand divided, whilst we are made a prey of by miller and grain dealer rings on one side, manufacturer rings on the other, and rail-

way rings on top of all? Let us unite, and not only talk together, but vote together, and then, and not till then, will we be in a position to make "tyrants tremble." And now, perhaps, I have said enough upon this tender but important point. There is another point upon which I wish to touch, and I sometimes think that it is the

most important, because most potent of all; I refer to the moral phase.

I said at the beginning, that many of us in coming to this province very much resembled Lot viewing all the plain of Jordan, and pitching his tent towards Sodom. In reading the histories of Abraham and Lot, the chief difference seems to have been that, whilst Lot was most concerned about pitching his tent, Abraham never forgot to build an altar to God. And is there not good reason to believe that this fact had something to do with the vastly different fortunes which befel them? Is it not true that many of us have more resembled Lot than Abraham; and may not our difficulties and disappointments be attributable to a merciful rather than unkind Providence

Let us pause and think, and, where necessary, amend our practice, and if we do, I have no doubt that ours will yet be a prosperous country, and we

a happy and contented people.

January Work. BY ALLEN PRINGLE, SELBY, ONT.

While there is not much to be done to the bees in January, what littlethere is is important. Those in proper winter repositories properly fixed require but very little attention, while those not so conditioned might require a good deal or loss would result. In the former case the entrances should be ex amined, and the dead obstructing it removed to give a free exit and ample ventilation. Then, if the floor of the repository is strewed with dead bees, as it always will be more or less, these should be removed before they become a nuisance. The floor should be covered liberally with dry saw-dust, and fresh lime placed around here and there. Bees wintered outside should be looked after now and then, especially after heavy snow storms, to see that the entrances are kept clear. It sometimes happens that during a cold spell the entrances will become completely filled with ice from within—the heat of the bees melting the frost which collects on the inside of the hive, when it runs down and out, and is frozen in the entrance. This must be attended to. Many farmers still use the "old box hive" for their bees. These, if being wintered in the cellar, where the temperature ranges from 40° to 50° Fahr. would be all the better inverted that is, turned "upside down" and "down side up." Don't be frightened. It will not hurt them to "stand on their heads." I remember that about forty years ago, when my father kept some fifty to sixty colonies in the "old box hive," he used to winter them in a little house built for the purpose, filled in with sawdust four to six inches thick all round, still standing on the whole homestead where I live, and he used to stand them all "on their heads," as the neighbors used to say. They wintered very well, and his losses were comparatively small. The farmer beekeeper with a few colonies in box hives need not, inherited from our fathers prejudices which, in therefore, fear to turn his hives bottom up when in the cellar, as they will be much more likely to come which no longer exist consider without bias what through all right that way than the other way, They should, however, be placed well up from the rellar floor the nearer the ceiling the better. If Now, sir. I hold that if the farmers of Brandon turned up put a thickness or two of woolen cloth or

Y 20, 1893

whichever machine it without Of course, vstem was v increase ion for our eration for Where are ιsed popu-

ies." But benefitted ome of our lived have combines. eur necks. Vhy, I ask e are made rings on r, and rail-

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Wheat Grading System Discussed.

BY A FARMER, EUNOLA, MAN.

I notice in your October number an article by J. S. Thomson, headed "Grading Wheat Unsatisfactory to Farmer and Buyer," in which he claims the grading system is a fraud and a nuisance

It has opened up a subject that calls for careful consideration. Then, if it is found that selling by sample will be of more benefit to the country at large, the sooner the present system is done away with the better.

The following seem to me to be the main reasons why he would do away with it :-

ist. The buyers are opposed to it.

2nd. A farmer having a sample of wheat that will barely go No. 2 hard, by mixing inferior soft white wheat with it can obtain No. 1 northern or No. 2 hard price for it.

3rd. That the inspectors very often don't agree upon the same grade for the same sample of wheat. I quite agree with Mr. Thompson that a drop of from ten to fifteen cents between the grades of hard wheat is too much. Now, is it the system that is at fault, or the way it is administered, and would the farmer really be the gainer by selling by sample? I Would not the sample system still allow the same frauds to be practised on the farmer? Would not the buyer still say it must be better than the sample or it won't pass? That the buyers are opposed to it needs no comment.

As to the second reason, there is very little room for comment either, except how few farmers are able to mix inferior wheat with it so as to raise the

The third reason is the most important, and, to my mind, is where the real difficulty lies, and refers to the local buyers as well as to the inspectors. He quotes from his own experience, where he got No. 2 hard at Fort William, when the Winnipeg in-spector only gave him No. 3 hard for the same Also that of another farmer who got No. 2 hard at Toronto, when he only got No. 3 hard at Fort William and Winnipeg.

Does that prove the system itself is at fault, or should we not rather endeavor to improve the administration? The same thing on a smaller scale has happened at the local market, where a farmer has been offered a low figure for his wheat, refused to sell, and given the same load to another farmer who obtained the highest price from the same buyer. This is where I think the farmer suffers the most, and would he not have the same thing to contend against under the sample system?

In support of the grading system, the article from the Winnipeg Commercial, in the same number, "Grading Wheat Defended," covers the ground so well it is needless to add more, except drawing attention to a former article—taken, I think, from the same journal and re-published in the ADVOCATE about February or March, if I am not mistakengiving the experience of a buyer shipping on sample. was stated that he received a telegram saying: "The car was not up to sample; what was to be done with it?" The shipper telegraphed back say-Take a sample from the car in presence of ing: "Take a sample from the car in production."
C. P. R. station agent and abide by his decision. The answer came back saying the agent would not open the car. This shows one of the evils that would creep in with the sample system.

I would like to hear the views of other farmers on the subject, as it requires careful consideration before action is taken.

#### Further Discussion on Wheat Grading System.

To the Editor of the Farmer's Advocate:

Dear Sir, —One of the questions that is agitating the minds of the farmers of our country, is the present system of grading wheat, and on this subject I would like to express a few ideas through your valuable paper. Many condemn the grading system and pronounce it a fraud; they claim all grains should be said as a fraud; they claim all grains should be sold on sample. Now, in the face of this, and after some experience, I claim that the present system, if rightly done, is the greatest protection the farmer or dealer has. In selling grain on sample—suppose a farmer sells to an Eastern miller, say throw one of relative to the farmer miller, say throw one of relative to the farmer miller. three cars of wheat; he sends a fair sample, the miller or dealer makes him an offer, the farmer accepts and ships; when the grain arrives at destina-tion, perhaps on a "falling" market, suppose the miller or dealer should say, "This grain is not up to sample: I won't pay the price I bid for it," what redress has the shipper or farmer? Whereas if he sold on grade he could collect. As you see, by se ling on sample you are at the mercy of the dealer.

A few suggestions on grading:—We are told by Mr. Braithwaite, of Portage la Prairie, that the Board that formulated the standards for this year was composed of five millers, three dealers, and one farmer. I think you will agree with me, that the people west interested but her the records. people most interested had but a very small representation. I would suggest that the Board be composed of equal numbers of farmers and millers, the parties most interested, and let the standard grades

arranged so as to do justice to all concerned. be more than three cents difference in value between the grades, or, in other words, bring the grades a little closer together. As it is at present, a farmer having a lot of wheat not quite a two hard has to take a three hard, a drop of from eight to ten cents, when there is actually not more than two cents difference in value. In all honesty, this is not as it When the Board meets to arrange standards, they should decide to fix grades so that there will not

should be. I also think that our No. 1 hard is a little too high a standard; in fact, so high that if you are not located on high ground you cannot reach it. I know the argument in favor of it is to keep up our reputation; but are we doing it? Take, for instance, the reports of the grades; look at the very small percentage of one hard that appears in said reports. Remember, the world is looking on, and can read between the lines

One of the causes why the standards are so high, the Grain Exchange, through their representative, ends throughout the country to the local dealers for a couple of bushels of the classes of grain that their section of country can supply; at that time threshing is in full blast; the dealers drive around and pick up the best they can get, and from this the standards for the season are struck. Consequently, they find they are a little high for their section.

Farmers should try and arrange their pay ments so as not to be forced to rush the markets early in the season. It can be done in this way: Half of their payments fall due in January, and half on first of March; this plan would afford a breathing spell between times, and give them a chance to pay their store bills and blacksmith, binding cord, and other little things incidental to farming early in the season; and I believe by this plan we would realize more for our produce, and the machine men at the close of the season would get more money than they do now under the present system, which simply this—each dealer (particularly machine men) is trying to get his money in first, which is the chief cause of the markets being glutted

For many other good suggestions, read carefully Chas. Braithwaite's article in December Advocate, page 474, and let us all try honestly to bring about a better state of things. Yours truly,

a better state of things. Yours truly, J. J. Ring, Crystal City, Man.

#### Hardy Cherries. 2.

BY JOHN CRAIG, DOMINION HORTICULTURIST, OTTAWA, ONT. (Advance Sheets of Bulletin No. 17.)

VARIETIES RECOMMENDED. With present experience the following varieties are recommended for trial, and will probably prove valuable in those sections where climatic conditions ermit the cultivation of the pear: Amarelle Hâtive, Strauss, Griotte Impériale, Ólivet, Gros Gobet

The following list comprises varieties which appear to grade in hardiness with the Wealthy apple Spate Amarelle, Fouchès, Morello, Minnesota Ostheim, Brusseler Braun, Orel 25

Among those of exceptional hardiness, and which should be tested along the northern border of the apple belt are: Riga No. 18, Vladimir, Bessarabian and Shatten Amarelle.

PROPAGATION. Budding.—Cherries are propagated for commercial purposes almost entirely by budding. This consists in transferring a single bud of the desired variety to the stock or branches upon which it is to grow. The operation is usually performed during the month of August, when (using a nurseryman's phrase) "the bark slips." It is effected by slicing a well ripened bud from a twig of the growth of the same season, and inserting it under the bark of the stock, where it is securely tied. If the operation is successful all the top above inserted bud is cut off the following spring. By rubbing off and preventing the formation of other wood the whole growth of the stock is directed into this channel. In this way trees of suitable size for orchard planting are produced in two seasons. In the Western States, where the snow fall is limited, some objections have been urged against this method of proon the ground of the prevalence of root injury to the more or less tender stocks. In regions of abundant snow fall, as in the Province of Quebec and Eastern Ontario, this objection does not carry

the same weight.

a

CROWN GRAFTING. Root grafting, as ordinarily practised, when applied to the propagation of the cherry is attended with little success

Crown Grafting, which is inserting the scion in the crown or collar of the stock, at or a little below the sur face of the ground, is in the experience of the writer a much more successful c method. This may be done in winter, using stocks which have been stored for the purpose; or early in spring upon stocks already established, and undisturbed in the ground for a year. Prof. Budd claims satisfactory results when the stocks are taken up in the autumn and grafted in the graft room during winter. Careful comparsions have been made here for the past three years,

growth is obtained the first year, at the end of which the graft may

be taken up, and part of the old root cut away. The yearling graft may then be replanted, setting it deeper than formerly, so that the scion is brought under ground and offered conditions favorable to the emission of roots. The principal objection to the method is that at the time-early in spring-when this work should be performed, many other duties engage the at-tention of the fruit grower, making it difficult to accomplish in a limited time large amount of this kind of grafting. The method is one, however, that can always be practised to some extent. It will prove of special service to amateurs, for whose benefit the following instructions are given:

The stocks should be planted in nursery rows the year previous to the date of grafting. Cut well matured scions in autumn of the growth of the same season, keep these in a dormant condition over winter by packing in

forest leaves, or damp sawdust. In this locality the best time for out-door grafting is usually during the first two weeks of April. Figure IX. illustrates the method of crown grafting the cherry, as usually conducted in the graft room. (a) shows the scion cut wedge shape, (b) the stock with a slanting cleft for the reception of the scion, (c) the scion in position, firmly bound with waxed thread, and (d) illustrates the joint completed by a covering of grafting-wax, to exclude the air.

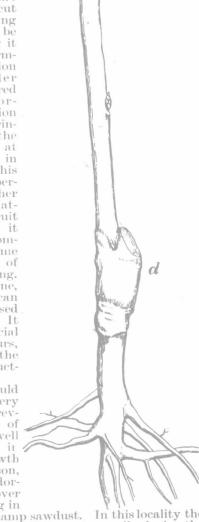
In the case of out-door work the process is essentially the same, except in the manner of tying. Instead of binding first and waxing afterwards, firmer joint is made by applying the wax first, and covering this with a cotton bandage, which adheres to the wax and holds the scion in position. It must be remembered in the case of stocks which are in the ground, that the top is cut off at the point indicated in the figure as soon as the scion is inserted, after a little practice this is easily removed by an upward cut, which can be made without disturbing the scion.

PROPAGATION BY ROOT CUTTINGS. When cherries are on their own roots, as when grown from sprouts, they may be multiplied by means of root cuttings. The surface system of roots, -those nearest the top of the ground,—are used for this purpose. These are taken up in the autumn and cut into three-inch lengths, packed in with earth and stored in a cool cellar till spring. When the ground is in proper condition the cuttings are planted in rows, sticking them in a slanting position and covering completely, so that the top end is about an inch below the surface of the soil. Several shoots will usually start; the strongest should be trained up to form the future stem, and all others broken off. Where greenhouse facilities are available, the cuttings may be started during winter with gentle bottom heat in the propagating bench, and set in nursery rows the followng spring.

The Mazzard cherry (Prunus avium) is probably used by nurserymen more than any other as a propagating stock. It is a native of Europe, and is supposed to have given rise to many of our cultivated varieties. All varieties of cherries unite with it readily.

The Mahaleb cherry (Prunus mahaleb) is used to considerable extent, partly on account of its dwarfing tendency, and also because of its adaptability to clay soils, as pointed out by Professor Bailey. (See bulletin on native plums and cherries.)
The Morello stock (Prunus cerasus) has not been largely used by nurserymen, chiefly owing to its sprouting habits. It is hardy, however, and can be frequently procured by amateurs when Mahaleb

or Mazzard are not easily obtained.
Wild Red or Bird cherry (Prunus Pennsyvanica) has been successfully used as a budding stock for some years by several experimenters, but its ultimate value for this purpose has not been definitely determined. Most varieties seem to unite with it as readily as with Mazzard. Budded trees of many



#### The Statute Labor Question.

BY JAMES ELDER, VIRDEN.

The above question is being earnestly discussed in Ontario and in some parts of this province, and the prevailing opportunity seems to point to the abolition of the old system, and it may not be out of place to discuss the question here.

The only argument which we hear in favor of the old system is, "That a farmer does not feel the five days' work as much as he would the cash payment of \$5.00. Now, we believe that this is a delusion. If a man has to perform five days statute labor, that means a day and two-thirds of a man and team spent on the road, but it really means two days off the farm, because there is but little done at home on the second day after the statute labor is done. Besides, it is a matter of value, and at the rate of wages paid in this province, every day of a man and team is well worth \$3.00, and, as a rule, is badly needed on the farm.

We have practical proof of this in the fact that when contracts are let, very few farmers care for them, even when more than \$3.00 per day can be earned. So that the whole question of statute labor is a matter of paying in value instead of cash, whilst the whole is really (though perhaps not apparently) worth more to the farmers than the cash.

This is one side of the account, but there is another, viz.: The value is not worth nearly as much on the road as the cash would be, for the following reasons:—

reasons:—
1st. Whilst there are some who take an interest in the work and try to do as much as possible, and to make as good a job as possible, with a great many the object seems to be to get the day put in as easily as possible, and the work done is of a most unsatisfactory character, and this, too, even when the work is being done upon the road over which the individual travels.

2nd. If men were doing contract work they would not only work harder, but they would work ten in-

stead of eight hours per day.

3rd. A contractor can accomplish more in a given time, because he will supply himself with all the appliances necessary, and have his plows and other machinery in proper condition, whereas the farmer's plow almost always requires about an hour's tinkering before it will work, and then seldom works satisfactorily, and a great deal of time is lost in hunting

up scrapers and shifting them from place to place,
4th. Contract work means finished work—work
brought up to a specified standard; whereas, statute
labor often means a job left half done, and the road
left in a worse condition than before it was touched.
5th. The pathmaster or road commissioner's work

will be more systematically done.

Under the present system, each man wants to do his work opposite his own farm, and, as a consequence, the statute labor is often frittered away upon a great many little jobs, but few of which are

Now, if a tax were collected and a road commissioner appointed for a term of say four or five years, he could then arrange his work systematically, and by making a main road through his district, so located as to accommodate the greatest possible number of settlers in the shortest possible time, and afterwards attending to the branch or less travelled roads, I have not the least doubt that at the end of his term every person would admit that the change was a great improvement.

Pertinent as these remarks might be under the old system of doing statute labor, i. e., with plows and scrapers, they are much more pertinent now that we have the road plow, which is operated by eight horses, and does a vastly greater amount of work in a given time than can be done by the old

When using the road plow last summer, we found our greatest hindrance to consist in the continual change of teamsters and teams.

Before either the man or team became acquainted with the work, their time was put in and a new man and new team hand to come on. Then, again, it often happened that the statute labor of a district was performed without that particular piece of road being finished. Then, again, there was the great loss of time consequent upon three men and three teams waiting for the tardy fourth man and team.

All things considered, we are confident in the opinion that the time has come for a complete change in our whole road system, and the question is which district will lead in adopting the reform.

And now that the road plow has been mentioned. we would advise those in districts where it is not known, to be careful about making ditches along their roads, because there is not the least doubt that the road plow will come into use in every district of Manitoba, and in order to prepare for it we would say, Set your stakes 9 feet from the centre of your road and draw a light furrow first, throwing it toward the intended road bed, then go around on the gee, making each furrow deeper then the one before, until you have five or six furrows plowed on each side. This will leave you 18 feet of road bed, with 5 or 6 feet plowed on each side to be thrown in upon the road bed with the eight-horse plow. It also leaves about 9 feet of prairie on the outside of the ditches to drive on in wet weather when the centre is slippery. This work should be done the year before the road plow is used.

#### Timely Notes for January—No. 2.

A happy, a progressive, and a prosperous season!
WISHES AND RESOLVES.

With each succeeding January we are all prone to make numerous resolves for a new and better life—with some in a financial and others in a spiritual sense. Let us not forget that "the road to — is paved with good resolutions." It is in the carrying of them out that there lies the hope of regeneration. Among a few of the good intentions I would call your attention to the following:—To get out of the hands of traders, either of horses, cows, or trees; rear your own calves; get a good horse that you can and will keep for half a life time; and get your trees from the Experimental Farm, and the nearest spruce bush; to join the Institute, the Dairymen's Association, the Stock Breeders' Association, and, lastly, the Patrons of Industry; to pay up the arrears on your agricultural paper, obtain the bulletins from the Experimental Farms, and try to improve your returns from each acre and from each animal.

GENTLENESS IN STOCK RAISING.

The "still, small voice" is what tends most to make the stock gentle and kind. Both cows and horses are unnerved when shouted at, and, being frightened, very often kick in self-defence. Many folks tie a heifer's legs together, draw her head up high to a beam, then give her a few caresses with the milking-stool, yell at her a few times, and then are very indignant if the poor beast tries to kick and holds up her milk. Now, let us reverse the treatment, and tie the man's feet together, put a gag in his mouth, so that he can't swear, and tie both his hands behind him, so that he can't pinch the heifer's teats. I think that particular cow would not kick then. "Put yourself in his place" is a good maxim on the farm, and should be placed over the cows' stalls. Kindness pays.

ECONOMY IN TAKING STOCK.

We have now our slackest time. Let us sit down and take stock of our belongings, as a merchant Beginning with the farm itself. t worth last January? \$2,000, or \$3,000? What is it worth now? Any more or less? Say \$2,000 last year. Now with the extra plowing done, the fresh stable and sheep pen, it is worth say \$2,500— no mortgage—then we are \$500 better off on this item. Then the horses. Our teams are worth say \$20 less each than last year, on account of their being a year older. Our young horses are worth more. Let us then put down what we honestly think they are worth at present market values. Say two teams at \$300 each, and four young horses at \$75 each, in all \$600+300=\$900. Let us now turn to the cattle. Is our bull a pure-bred? If not, why not? Is he worth more than last year, or less? And so on with the cows, the pigs, the sheep and the poultry. The implements and "dead stock" are all to be reckoned out in the same way; and lastly, our cash, with our bills payable and receivable.

Another very important point, and a very forcible educator, will be the different value we put on our stock individually. Take those two colts. The first by a pure-bred Clyde is "easy sale" at \$75, the second by that cheap Clyde-trotter-French-combination stallion would be a very slow sale at \$40. How much have you lost on that colt as compared with the first this year, and how much will you lose on him by the time they are both four years old? Will you, after that demonstration, still go on using

the mongrel stallion?

Take your cows now. You know that "Bess," the old reliable twelve-year-old, still gives you 6 lbs. of butter per week, but you know also equally well that her daughter "Buttercup," though only four years old, gives you 10 lbs. per week, eats less and looks better. You value "Bess" at \$30. What value do you put on "Buttercup"? Can you afford to keep "Bess" any longer? What about those others that don't give as much as she does? Do you intend to go on keeping "Buttercup," so that she will help pay for the board of the other unprofitable brutes? Wouldn't you be better off to give away some of those cows at the beginning of the winter, or, at any rate, sell them for what they will fetch, or make beef of them? Carry out this comparison with all your other stock, and I don't think you will want much urging next year to buy a pure-bred bull, boar or roosters.

Again, you had some fifty acres of wheat this

past season; 30 of it gave you 25 bushels per acre, the remaining 20 only 15 bushels. Why was this? Did that 20 acres pay expenses? If not, wouldn't you have been better off without them? You had a piece of Hungarian grass of four acres that returned you sixteen large loads of good hay, with only four days' work in all for plowing, cutting and hauling, because it was so near your buildings and on your own farm. You also cut forty loads of wild hay ten miles from home, which took you two weeks to cut and stack out in the swamp, and is going to take you three weeks more to haul home during the cold of winter. Now, in the first case, you got four loads a day of first-class hay; in the second only a little over one load a day of second quality stuff. Think it over seriously, and without prejuding the cold of winter and day of the property of the cold of with the cold of without prejuding for the cold of the cold of day of second quality stuff. Think it over seriously, and without prejuding for the cold of the cold

ing the cold of winter. Now, in the first case, you got four loads a day of first-class hay; in the second only a little over one load a day of second quality stuff. Think it over seriously, and without prejudice for the good old times, and determine that this season you will endeavor to have all your hay at home, grow it on your own land, and thus not only get more of a better quality, but without any hardship of winter teaming. Let those far-away swamps severely alone. Believe me you can make more money giving your stock your full attention during

the winter than you can save by hauling home swamp hay in the cold of January and February and neglecting your cattle at home. Let us think more and work more with our heads and not so much by "main strength and ignorance."

GENERAL.

Keep all those refuse pieces of meat from your animals, such as lungs, etc., and chop them up for your hens; burn your bones in the stove, and the fowls will be glad of them.

Look round you for fresh roosters. Make note of those hens that lay right along in the cold winter months, and keep all the pullets from them; they will most likely follow their mothers in their good deeds.

If you intend buying a bull or a boar, buy one that was born early in the year; they will be better grown than those coming later. Again, in showing them they will have a considerable advantage, as the ages are frequently reckoned from the beginning of the year.

"INVICTA."

#### Enquiries re Shropshire Sheep.

A subscriber from Cartwright, Man., sends in the following enquiry, which we submitted to Mr. Wm. Wallace, Niverville, Man., to answer:

"Would you be good enough to give a general description of the Shropshire Sheep? If it is a suitable breed for this country? If a prolific sheep, and if the wool is of more value than the Leicester? Also p'ease inform me what you would consider a fair bargain in taking sheep on shares for say a three

years' term?"

The Shropshire is a medium woolled sheep, with dark brown face and legs; a thick, compact, well-shaped body, set on short legs; head and legs well covered with wool. It comes early to maturity, and at any age its weight compares favorably with other breeds. The mutton is more highly esteemed than that of the Leicester or Cotswold, the fat and lean being well mixed. The wool is shorter, finer, and with a closer habit of growth than that of the other two breeds, and it is worth two or three cent's more per pound. The Shropshire is very prolific, and the ewes are good mothers. This breed is well adapted for Manitoba, either pure or for croping.

We have not heard of sheep being rented in Manitoba on shares, but know of cases over the boundary in North Dakota where this has been done; the farmer getting one-half of the wool, and on -half of the increase.

#### Legal Department.

To the Editor Farmer's Advocate.

SIR,—What is the law in Manitoba governing line fences? My neighbor insists that I shall build and maintain all dividing lines. Am I compelled to fence against stock?

C. W. K.

Ans.—You are not compelled to fence against your neighbor's stock, for whenever two persons have adjoining fields and no fence between them, each must take care that his own beasts do not trespass on his neighbor's. But under Chap. 12 of the Revised Statutes of Manitoba, it is provided that whenever any owner of land erects a line fence the owner of the adjoining land shall, as soon as he encloses lands adjacent to or along the line fence, pay to the person who erected the line fence, or his assigns, a fair compensation for one-half the line fence. Such compensation may be determined by arbitration, if not otherwise agreed upon. And further, that each of the parties occupying adjoining tracts of land shall make, keep up and repair a just proportion of the division or line fence on the land dividing such tracts and equally on either side thereof. And further, the disputes between the owners or occupants of adjoining lands, in regard to their respective rights and liabilities under this Act, shall be decided by the majority of the three fence viewers appointed in the same manner as stated in Subsection (C) of the sixth section of this Act. The whole Act bears upon the subject, and its provisions should be strictly followed.

We take the following clippings from the Breeders' Gazette, which shows that choice beef is still in demand at paying figures:—

"One of the largest droves of choice beeves ever received here was brought in on Wednesday last, by J. Evans, from his Emerson, Ia., farm. There were seventeen car loads, and every animal was about as near perfection as they make them. They were Polled-Angus, averaged 1,490 lbs., and brought \$6. Mr. Evans has about 1,000 head of young cattle on his Emerson farm, 400 of which are pure-breds." "Among the very prime Shorthorn cattle here recently were seventy-two head belonging to J. D. Waters, of Mechanicsburg, Ill. They were two-year-olds, averaged 1,598 lbs., and sold at \$6.10." "Another bunch of thirty-eight head of Angus cattle, from Missouri, that averaged in Chicago 1,816 lbs., were good enough to fetch \$7 per 100 lbs., and were pronounced the choicest cattle for the number area may be sted in Chicago.

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Shorthorn d belong-Ill. They nd sold at t head of raged in cattle for

Domestic Veterinary Treatment of the Animals of the Farm.—6.

BY DR. MOLE, V. S., TORONTO.

DISEASES OF THE RESPIRATORY ORGANS.

We shall consider in this paper a number of diseases affecting the organs of respiration in horses. cattle, sheep and swine; give cause, symptoms, and treatment in each of the simple cases, but not in any way to supplant the regular veterinary attendant, for it is not to be expected that the farmer will be able to recognize all the symptoms in their many phases, as presented in disease.

CATARRH, COMMON COLD, BRONCHITIS, PLEURISY, PNEUMONIA AND BROKEN WIND.

These diseases bear such a close resemblance to each other that not unfrequently one terminates imperceptibly into another more severe in character: two or even more may be present at the same time. Thus we may have bronchi-pneumonia, or pleurisy or influenza with an attack of laryngitis, so that to an inexperienced observer the whole may present an assemblage of diseases of the most inextricable confusion.

Many of the above-named diseases are essentially similar in character, the difference in name arising merely from the difference in the locality in which they are manifested, as laryngitis and bronchitis, which are, as their terminations indicate, inflammation of the larynx and bronchæ, more particularly the lining mucous membrane.

CATARRH OR COMMON COLD.

Catarrh is inflammation of the mucous membrane of the air passages, more particularly of that portion which lines the nostrils, producing an increased discharge of mucous from the nose; it is one of the most frequent complaints met with in the horse, sometimes prevails over a large extent of country, and affects nearly every animal when it is denominated Influenza, Pink Eye, or Epizootic

The term Influenza is somewhat misleading, as it is generally understood to embrace one specific disease, instead of a number of manifestations. So much has been written, and so many observations taken in this disease that whole chapters might be written in describing this complaint. For the sake of description the various names by which it is known are here mentioned: Pink Eye, Typhoid Fever, Epizootic, Epehippus Fever, La Grippe, Typus Fever, Hepatic Fever and Bilious Fever are all one. We recognize several diseases under the denomination of Influenza, and are of opinion that it is more like Malarial Fever of the human subject, for it has been recorded that a single animal with a slight catarrh will communicate and become the centre of disease, and it is entirely a matter of chance as to whether a sporadic or common cold may not produce a very wide outbreak of Influenza; and that it disappears as suddenly as it commenced is incomprehensible, unless on the theory that it is a germ disease and has died out because the material on which it can live has died out also. Therefore sanitary measures are all important. Insist on the abundant admission of fresh air, a free use of disinfectants, with constant washing day by day of floors, walls, mangers and surroundings.

ymptoms.—Generally localizes its effects in the head and chest, the animal is feverish, the pulse altered in character—about fifty to sixty per minute—small in calibre, and a jarring or wiry touch; temperature elevated one or two degrees, about 102 to 103 Farenheit; corresponding to an elevation of temperature the respiration will vary from fifteen to thirty times a minutes; the breath will be hot, and the breathing superficial from the closing of the bronchial tubes, as described in my last article. The eyes will be dull and watery. The membranes of the nasal duct being swollen, the tears cannot flow freely into the nostrils, therefore they escape from the eyes and flow over the cheeks. The visible mucous membranes of eyes and nostrils will be of a pinkish color, and from this appearence is sometimes described as Pink Eye. The animal yawns frequently, indicating derangement of the stomach and digestive organs, or gives forth a cough or sneeze at the same time. When the throat is sore, the appetite will be bad. Then a watery fluid is discharged from nostrils, which either disappears, in a favorable case, or becomes thick and tenacious; the urine is high colored, voided frequently, and dung ejected in small quantities, with a glazed, glistening surface.

Cause.—A very common cause is that of overdriving the animal, and then allowing him to stand in a draught of cold air; placing him in a cold, damp stable; turning him out to grass while in a state of perspiration; driving him into water, or wetting the legs when the system is exhausted after a long journey; placing him at once in a close, warm, or illventilated stable with other horses suffering from

the disease. Treatment.—Owners of horses who are at all observant ought to be able to instantly detect the symptoms of Catarrh, and by prompt measures arrest its progress; and if any attention has been paid to my explanation of the theory of inflammation the tion, there ought to be no difficulty in at once adopt-

the animal not recover his natural heat, do not waste any time waiting, but remove the rugs, obtain a blanket, wring out in hot water and apply to sides and chest. Apply and well rub in some of the stimulating liniment, and cover with rugs until the reaction sets in. Give two drachms of the tincture of aconite morning and evening; place about half an ounce of nitre or saltpetre in his drinking water, which should have the cold chill taken from it. As soon as the animal will take any feed, offer a bran and flax seed mash, with boiled oats and a few carrots, and in most cases a recovery will soon be manifest. Without warmth and comfort medicine will prove of little or no avail. It may be necessary to continue these remedies four or five days in suc-

The causes of Epidemic Catarrh or Influenza have a close relation to the state and peculiarities of the atmosphere, the season of the year, etc. In the fall the prevalence of the northeast winds, or a rapid change of the atmosphere—a hot, close condition quickly succeeded by a cold, damp, moist state, is pretty certain to be followed by the prevalence of Epizootic Catarrh. It has been recorded that whenever an epidemic of this complaint appears in animals, the human subject is sure to be affected later, and it is then familiarly known as La Grippe. In our young animals it usually terminates in an abscess in the submaxillary space or underneath the jaw. This condition is known as "Strangles". Hot fomentation, the application of bran and linseed meal poultices are indicated. Should the abscess eem tardy in forming, a slight blister of the biniodide of mercury will hasten the process by increasing the flow of blood to the part already inflamed and thus cause suppuration, which should be lanced as soon as the matter points for an opening.

Should, unfortunately, Pneumonia supervene, its appearance is greatly to be dreaded, especially where a number of animals are kept. As disease has always a tendency to communicate a more violent attack from a simple commencement, it frequently under mines the whole organism before an ordinary oberver would suspect that anything particular was the matter; it is here that a skilled veterinarian should be called in, as it is only his experienced ear that can detect the various changes which have been and are taking place. There is also something in the very cough which tells of the great and destructive damage done to the internal structures. It is soft and feeble in its character—is constrained, as it were. The animal is afraid to cough, from the acute pain which it experiences during the act; the countenance is dejected, the eyes present a dull, inanimate look of pain; if the hand is placed on the limbs, a moderate degree of warmth is at first felt, but if retained for a short time a coldness becomes perceptible, which seems to come from the deep-seated structure of the limbs. The visible mucous membranes of the eyes and nostrils present a dull, leaden hue, the front of face and nose become cold, and death soon closes the scene. The post mortem changes were described in our last article, and need not be again referred to; but in advising for domestic treatment, the lines laid down for common catarrh must be strictly followed, and in addition give alternately a half pint of good whiskey and port wine. The action of all stimulants is to rouse he system and give natural heat; it has also the twofold object of preventing a too great oxidation of the blood, and thus lower the temperature, which will sometimes mount up to 104° to 103° Farenheit in fatal

cases of this disease.

Certain remedies, like simple aromatic tea; vegeinice : alkalines in the form of salts, sweet spirits of nitre, which are house hold remedies, are always useful because they act on the excretory organs and ameliorate the effects of fever. Some little judgment is required in administering the proper quantity. Half a gill of whiskey would be too large a dose for a small buggy horse, and too small for a Clydesdale cart horse Port or native wine, on some occasions, not only acts better than whiskey, but it is also more palatable to the patient. Use in half-pint doses, mixed with an equal quantity of water, at least three times a day, in severe cases.

In convalescence, the diet should be nutritious; eggs and milk, bread and milk, or milk and water with bran and linseed meal mashes are all indicated. In preparing the eggs, follow out, as near as possible, the domestic method. Break a dozen eggs into a basin; add a teaspoonful of salt (about a quarter of an ounce); mix the whole thoroughly with a whisk to a froth; add about two quarts of milk, and give the same to the patient.

Hygienic conditions now come in as a most important factor, with good nursing. Boiled oats, hay tea, or fresh cut vegetables of any kind that the stomach will retain or can be coaxed to take the great and important fact is to give nourishment to support the flagging spirits. A very important "don't":—Don't force the recovering patient to walk or take any exercise. Give a good, roomy, warm box or barn; allow the animal to wander around on his own account; he will be the best judge of how much exercise he is willing or desirous of taking.

So far as we can observe, there is no reason to believe that any contagious disease can arise spontaneously. Influenza behaves, as do all other contagious diseases, in a uniform manner. It has its eriod of latency, development, height and decline. The first and great healing power of nature is rest for the wearied tissues. Make the animal warm and comfortable by rugs, and bandages to the legs; and give a bucket of gruel, instead of the usual method of filling the manger with oats, etc. Should How it spreads it is sometimes difficult to trace;

pneumonia contagiosa is unknown in the Dominion f Canada, and the government of this Dominion, with Professor McEachern, of the Montreal Veter-inary College, as their veterinary adviser, deserve great credit; and we accord to Professor McEachren the sole credit of organizing the measures of sanitary police prevention against this scourge of the bovine tribe. We of Canada enjoy the valuable privilege of exporting our cattle alive on the hoof to Great Britain, whereas our neighbors across the border are obliged to convey them in carcass or slaughter at the port of landing. There is no doubt that during the coming winter and next spring a very great effort will be made by the American government to gain a foothold of this market, and it is for that reason we advocate the greatest precautions in guarding a great privilege that we of the Dominion of Canada enjoy. The English and Scotch farmers of Canada enjoy. The English and Scotch farmers have been so sadly served with unfavorable condition of season as to render farming unprofitable, and we are quite of opinion that if they only knew of the favorable conditions that farming can be carried on in this country we should see more and more of them trying their fortune in Canada; and they will exclude the whole of our animals, should, unfortunately, such a dire calamity overtake our herds. Therefore it will be quite unnecessary for us to describe the symptoms of pleuro-pneumonia contagiosa, but we may state how pneumonia affects cattle, always remembering our original description of in-flammation of the lungs. The ox is fortunately very rarely affected with pneumonia, except the working oxen. All diseases of the respiratory organs in cattle ought to be treated with very great suspicion, but they do occasionally suffer from catarrh and bronchitis, and the train of symptoms may be classed as follows:

Usually a rigor or shivering fit, lasting about an hour, running of a glairy or white-of-egg colored mucous from nostrils, stiffness of gait, arching of back, dryness of nose, are unerring symptoms in the ox of the animal being amiss. Constipation, too, will be occasionally present, known by the stiffened and glazed appearence of the dung.

Cough, or wasting, as it is more often called, if very severe and more acute. As in bronchitis, the respiration becomes quickened with a wheezing sound, increasing to a grunt; this disease cannot be distinguished, unless by an expert, from pneumonia, and it is not important to separate the two diseases. In either case the affection must be treated promptly and decisively; apply hot fomentation to the sides and chest by means of the blanket; apply some strong liniment of ammonia; should this not be at hand, a pound of mustard applied hot, with some oil of turpentine, will be found beneficial. Some amount of discretion must be used, for if applied too strong it will blemish the skin. The bowels in oxen always want relieving, therefore give one pound of Epsom salts in two quarts of gruel, and a teaspoonful of the aconite mixture every four hours

At times the disease takes a chronic form, from the acute symptoms not receiving any attention. The farmer will describe the animal as to have a "waste" on her, or that she is a piner. The beast has been coughing, and she has fed tolerably well, given her usual quantity of milk, so that little notice is taken of the complaint; after a short time she begins to waste, the cough increases, and is more persistent; the appetite becomes caprious, the milk gradually diminishes, until an attack of diarrhora usually closes the scene. "Old Brin. dies." The verdict is, "Inattention and neglect of a com.

As long as any of these disorders attack the upper part of the throat, and the animal coughs hearty, the farmer may be content with nursing and attending to the general comfort of the animal. Domestic veteriary treatment should be carried no further when skilled assistance can be had; for if the animal is valuable, or he refuses to lie down, take food, water, etc., then, under these conditions, the farmer may depend he has more than a common cold to deal with.

Tuberculosis is a contagious disease, and deserves a whole chapter to itself, and the consideration of this most important matter will be taken up in our next communication.

CATARRH IN SHEEP.

With regard to the diseases of sheep, although prevention is, generally speaking, easier than cure, still, at the same time, a knowledge of the general lines of treatment of the more common diseases to which sheep are liable is invaluable to the shepherd and farmer. The cases which we generally hear of and most frequently see are congestion of the lungs, in highly-bred, good-conditioned animals which are forced to exert themselves. In these cases, fatal effects are so rapid as to give great surprise to the owner. The art of detecting the ailments of sheep comes only to those who are observant of their natural ways and habits. Watch the eyes and ears, and learn to detect the first symptoms of ill health. In mild cases of catarrh, a slight discharge at the nostrils, weeping eyes and short cough are all that present themselves; the restlessness and absence of the cudding will indicate that it has progressed beyond this stage to pneumonia. Of all diseases that affect the lungs of sheep, none cause so much loss to the Canadian breeders. It is due in most cases to direct exposure to cold and damp, and is principally met with in the fall and spring months. Almost the

WILLIAM DALLIAM

flapping of the nostrils and depressed ears. The appetite is always interfered with to such an extent as to require great attention. Give light gruel, hay tea, and all the domestic remedies as before detailed. In the early stages, one to five drop doses of the acomite mixture, given every four hours, will very often cut short the complaint. It is ques tionable whether any description of live stock have so little care bestowed on them as sheep, as owing to the weakness of their nervous system the animals, if neglected in the earliest stages of the attack, frequently fall victims to a disease which a little care and proper treatment on the first appearance of the trouble would enable them to have thrown off. The old-fashioned method of slaughtering a sheep showing signs of illness, if in good condition, or of simply letting it take its chance, as is too often done, when a poor one, cannot be considered satisfactory. There is one thing necessary to say in the administration of medicine to sheep. Let an assistant throw the animal on its haunches and hold it between his legs, back towards him, with the loerw jaw seized in his left hand from the left side; he can seize the upper jaw, or, what is preferable, pull out the cheek, to make a pocket or pouch with his right; then pour out steadily from a small bottle,

or tin can, the exact quantity for each animal.

When we come to consider this disease in swine, some very formidable obstacles present themselves. Who is there that has attempted to themselves. drench an old sow will venture on the experiment Yet by a little judicious management they can be cheated into taking medicine when they don't want to. It will save a lot of trouble if it can always be done, but there are many exceptions. The method that has always proved successful in our

hands is the following: First catch your animal; if of a large size, back into a corner; have your fluid medicine in a bottle; take an old boot and cut a portion of the front toe off; offer to Mr. Pig, and, in nine cases out of ten, he will seize it in his teeth and hold fast; then pour your medicine into the boot, and let it flow into the mouth. If anyone knows a better way, we shall be

glad to hear of it. Swine, like all gross feeders fattened in confine ment, make bad patients, but we have to record a most docile case, the property of Mr. Fearman, of Hamilton, and as a guide for all cases will relate his symptoms and give the treatment. A red Tamworth hog, about six months old, was noticed to have refused his food for two or three meals. Being a valuable animal, our attention was called. Found little Mr. Pig separated from the others in corner of sty; nasal disc hot and dry, and breathing hurried, shallow and oppressed; temperature, 104° Fahrenheit, taken at the anus; bowels constipated, urine diminished—his removal to a box that we could better observe him pointed out all these symptoms; also an absence of the characteristic piggy smell. For medicine we give jalap, one ounce; quinine, one ounce; ginger and black pepper, equal quantities, about half an ounce. This we mixed with some treacle, and made just thick enough to stick together. An assistant held the jaws open by two pieces of strap, and with a stick covered with tow, we rubbed a quantity of the electuary, as this may be called, on the teeth, taking advantage of the fact that no animal other than the human subject can This treatment combined with a little expectorate. stimulating liniment to the sides, brought about re-covery in a few days, and he had the distinguished honor of winning a prize at the last local agricultural show.

#### The Bots

IN HORSES NOT NEARLY SO DANGEROUS AS

GENERALLY SUPPOSED. The common gad-fly (Gastrophilus equi) attacks the animal while grazing late in the summer, its object being, not to derive sustenance, but to deposit its eggs. This is accomplished by means of a glutinous excretion, causing the ova (eggs) to adhere to the hairs. The parts selected are chiefly those of the shoulder, base of the neck, and inner parts of the fore legs, especially about the knees, for in these situations the horse will have no difficulty in reaching the ova with its tongue. When the animal licks those parts of the coat where the eggs have been placed, the moisture of the tongue, aided by warmth, hatches the ova, and in something less than three weeks from the time of the deposition of the eggs the larvae have made their escape. As maggots, they are next transferred to the mouth and ultimately to the stomach along with food and drink. A great many larvæ perish during this passive mode of immigration, some being dropped from the mouth and others being crushed in the fodder during mastication. It has been calculated that out of the many hundreds of eggs deposited on a single horse scarcely one out of fifty of the larvæ arrive within the stomach. Notwithstanding this waste the interior of the stomach may become completely covered (cuticular portion) with bots, Whether there be few or many they are anchored in this situation chiefly by means of two large cephalic hooks. After the bots have attained perfect growth they voluntarily loosen their hold and allow themselves to be carried along the alimentary canal until they escape with the feces. In all cases they sooner or later fall to the ground, and when transferred to the soil they bury themselves beneath the surfaces in order to undergo transformation into the pupa condition. Having remained in the earth for a period of six or seven weeks, they finally emerge from their pupal cocoons as perfect their foster mother.

dipterous (winged) insects—the gad-fly. It thus appears that bots ordinarily pass about eight months of their lifetime in the digestive organs of

According to Prof. Michener, bots seldom—not more than once in ten thousand times—cause colic. with these few exceptions, entirely harmless. It is entirely useless to attempt to dislodge them from the stomach, and they will go at their appointed time, which is mostly during the months of May and June.

#### Veterinary Questions.

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

I have a cow that got her teats frozen last winter. She is about to calve again. What treatment will I give her to get the milk through her teats.

Thos. Coughlin, Virden, Man. If the obstruction is at the lower extremity of the teat, and the canal is completely closed, it will be necessary to make a small crucial incision in the end of the teat with a sharp knife or lancet, and then pass a steel knitting needle, which had just been dipped in boiling water, and afterwards in a solution of boiling carbolic acid (one pint of the acid to twenty-five of water) through the obstruction until the milk begins to flow. To prevent losure of the opening just made, insert for a few days a teat syphon or milking tube, which should be kept corked except at milking time; or, instead of the syphon, a rubber or wooden bougie may be used. If wood is used, it should be of good quality, and not larger in diameter than a coarse knitting needle. The surface should be made as smooth as possible, and the end to be inserted should be well rounded and a little enlarged. Whether syphon or bougie is used, it should be disinfected, and again replaced until the part is healed. In extracting the milk while the teat is sore, the milking tube should

Can you, through the Advocate, inform me whether there is any danger in feeding horned cat-tle on straw with the binding twine in it? The other day I butchered a three-year-old steer for beef, he having been fed for about a month previous principally on straw and chaff, and, on opening the arge paunch, it contained a large amount of the binding twine. The steer was apparently well and all right otherwise. We have to feed straw this winter. Is there any danger of bad effects from the twine, and what remedy, if any?

The digestive organs of cattle are not very readily injured by the introduction of innutritious and indigestible substances, as is evidenced by the strange articles, such as nails, pieces of chain, leather, woollen cloth, etc., which are not infrequently found in the stomach after death. These articles, which may very properly be termed "hard tack," having produced no bad symptoms, nor any evidence of their presence while the animal was alive, afford sufficient proof that the stomachs of such animals are not of very delicate or sensitive order. I therefore think that the swallowing of a moderate quantity of binding twine will not lead to serious results. It will be as we l, however, to feed just as little of the article in question as circumstances will permit. indigestion arise from it, the remedy would be to reone ounce; treacle, one pint. Dissolve in a quart of hot water, and give in one dose.

#### Poultry on the Farm.

BY IDA E. TILSON, WEST SALEM, WIS.

If poultry quarters are overcrowded, little exercise ground remains, and a mob of idle, discontented creatures results. Nature indicates small flocks are best, because wild fowls live in families or groups, More than 50 hens can hardly be kept profitably in one enclosure, and three square feet of floor space is a standard allowance none too generous. It is not best to mix different kinds of poultry. I have tried turkeys, guineas and peafowls in combination with hens, and though these noisy birds may scare away hawks, they frighten and domineer my hens quite as much. In a house where there are no guineas, peace and happiness prevail. Every biddy descends from her perch early and scratches all day in the leaves and straw below. My other house has a few guineas, which monopolize every privilege, and unless they go out and off, the hens can hardly be induced to stir, and certainly will have less opportunity and fitness for laying. I would not so much mind guineas and peafowls taking the best, but they chase my hens from place to place, and, like the dog in the manger, prevent them from eat-It is only justice to say guineas are great insectcatchers, but no scratchers. They are better eating than turkeys, and their eggs, though few, are rich, Incubation lasts four weeks, a hen being better

While warm shelter and entire safety engross our thoughts at night, the main daytime requirements of poultry are sufficient freedom, contentment and proper food. An article lately read objected to the general prominence given food. Well, hatching and moulting come on by at certain times, They may, when present in large numbers, slightly while feeding knows no seasons or fashions, but is a living question 365 days of a year, I always remit the feeding knows no seasons or fashions, but is a living question 365 days of a year, I always remit the feeding knows no seasons or fashions, but is a living question 365 days of a year, I always remit the feeding knows no seasons or fashions, but is a living question 365 days of a year, I always remit the feeding knows no seasons or fashions, but is a living question 365 days of a year, I always remit the feeding knows no seasons or fashions, but is a living question 365 days of a year, I always remit the feeding knows no seasons or fashions, but is a living question 365 days of a year, I always remit the feeding knows no seasons or fashions, but is a living question 365 days of a year, I always remit the feeding knows no seasons or fashions, but is a living question 365 days of a year, I always remit the feeding knows no seasons or fashions, but is a living question 365 days of a year, I always remit the feeding knows no seasons or fashions. It is gretted that my flock utterly refused rye, which is nearly as valuable as wheat; but to my delight. this last fall, they accepted rye fresh from the threshing machine and relished it awhile, till somewhat old and dry, which illustrates, what many may have noticed, how fond hens are of new grain. As this is somewhat laxative, enough old grain should be saved to mix in for some time. Dry, clean wheat possesses the distinction of never causing bowel complaint. Corn ranks next in safety. Musty grain is dangerous, and dear at any price. Should one have such a product on hand, which must be utilized, a thorough heating in an oven will destroy all germs. This can be done day by day, with small quantities as fed, because winter rations should be warm anyhow. Screenings contain so many wild seeds and so much waste, and are no cheaper in proportion to weight than is clean, solid wheat. I have anticipated the general introduction here of peas and beans, long cultivated in Canada for stock, by successfully feeding these nourishing legumes, green, cooked whole or ground, to my fowls. Rye and oats have also obtained a wider use by being ground and then combined in my puddings. Another writer has complained that vegetables are refused by his fowls and left lying around mussed. What is new to a hen she fears, and must learn to eat. Have a little patience. Feed such things in moderation at first, and when biddy is particularly hungry; use stratagem if necessary. It is said "all things are fair in love and Surely this is a case of love for biddy's welfare. I had special difficulty in teaching my flock to ent carrots, which are so valuable. Finally a few onions were boiled with them to give flavor, and my problem was solved. Biddy thinks she is eating her favorite onions, but I know she is eating carrots. I do not cook hay, so often recommended, because it is easier to boil vegetables instead. Dry clover is well enough relished, and unless fed lavishly, does not pack in crop and bowels. A sensible hen will soon learn to eat apples. I saved and used the product of two crab-apple trees last fall. My meat supply consists, as usual, of scraps from a packing house, bought in cakes for a cent and a-half per pound. After beginning its use, the number of eggs soon increased. Grains or seeds, plants or vegetables, meat or some animal product, and grit, are the natural divisions into which poultry allowances fall. There is most danger of overdoing the grain ration. I have been away the second time, and left on this occasion a written programme which provided for more food than needed with my own good care. However, my substitutes, having in the former instance failed to feed at all, now determined to retrieve themselves. I returned from enlightening others about poultry to find mine sick. Mussed, uneaten grain lay all about, a sight never before seen here, and it seems a regular stuffing had been tried. An over-fat hen will not lay, neither can a hungry, half starved one; that is the business hen which has nearly, though not quite all she wishes to eat, just as he is move the cause and give a good dose of purgative medicine, such as Epsom salts, one to one and a-half pounds; gamboge, half an ounce; ground ginger, be provided? There are usually waste hills or places from which sharp gravel can be drawn by the load. Make some mortar purposely; that or crumbling, weather-beaten sandstone will be pecked in pieces. I dislike to recommend pounding crockery; it is such dangerous work for the eyes. From pounded glass must surely be taken those long sharp splinters, which are said to kill rats, and could easily pierce any membrane. A coal stove and biddy might, at first glance, appear unconnected, but coal ashes, with their clinkers, form a model pulverizer and digester. Don't forget that biddy needs grit as well as human beings do, only her's is of a different kind. As you supply her, just say,

"When this you see Remember me,"

and she will remember you with abundance of hardshelled, solid, perfectly developed eggs.

A writer in the Wisconsin Farmer is the author of the following sensible article:—A young couple in early life buy a farm that will keep sixteen to eighteen cows. They go in debt for a large share of the purchase price, but by industry and economy succeed finally in paying it. An only son has grown to young manhood, and begins so talk of securing a home of his own. His parents begin at once to say: "Our farm is too small for two families." So, as an adjoining farm is for sale, the boy buys. Suppose, on the contrary, the father had taken his interest money, and indeed his surplus income for a few years, and expended the amount in buying extra fertilizer, procuring better stock—in short, making the old farm produce more than both farms will. How much better every way! Many advantages come from intensive rather than extensive farming. Ontario as well as Maniioba is to-day suffering because many Canadian farmers have overreached themselves in their desire to own large farms. A small farm thoroughly and wisely worked is much preferable than a large one when the owner has only enough capital to buy or work a small one,

FAMILY CIRCLE.

Life.

Time leads us onward through the world's deep mazes;

Two things there are we have no voice in choosing-

Our ancestors nor our existence here, Fate's mandates here admit of no refusing From prince or beggar, sinner, saint or seer!

No horoscope forecasts our end or way;
The keenest thought within the world that blazes
Cannot elucidate beyond to-day!

We see the footprints of those gone before us;
The heights attained; the ledge where some fell;
Anon we catch heaven's chimes, sweetly sonorous,
Or hear a plaint from sin's own citadel.

Our work goes on. We fancy we can fashion A structure fair, and beautiful, and grand! We often fail! God can but have compassion Upon the heart that owns a feeble hand.

I can but think the rudest life work given Has hidden in it one fair, polished stone; Smooth, perfect, beautiful—as seen from heaven—

Enough, 'twould seem, if, with each gift extended, We add our fraction to earth's highest good, That we may whisper, when our life's expended, Though poor my work, I did the best I could!

Though sunk in chaos, with rank weeds o'ergrown

PRIZE STORY.

Dr. Marston---A New Year's Story.

BY FLOSSIE GRAHAM HAWTHORNE P. O., ONT.

(Original.)

-Housekeeper.

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Six years before he had married, and, thinking that a splendid opportunity lay before him to make money and reputation in a distant city, the young doctor, with his wife, had set forth full of the brightest hopes. But, before the passage of four years, misfortunes came thick upon them. The money acquired by the practice of his profession was one day swallowed up in a speculation which had held out a bright promise of success. He was penniless. Sickness came upen his wife and child, and the Doctor found himself a ruined man. Back came all three, husband, wife and child, che two latter still ill and suffering. Without money, and, consequently, without friends, Dr. Marston and his family took lodgings in the wretched old house. Mrs. Marston awoke and looked at her husband. "You have returned," she murmured in a whisper, lest she should awake the sleeping child. "Oh, have you succeeded, dear?" "No, Emma darling," answered her husband, his eyes dim with tears, "I have not succeeded; the friend whom I helped with money in my prosperous days refused to lend me a single dollar." The wife dropped her head upon the pillow, and a flood of tears came to her eyes. "Heaven help us, William this New Year's day, when all the world but us is happy," she sighed. "God aid us and our child. Oh, how want and poverty are thrusting us down." Marston bowed his face in his hands, and sat silent and almost despairing, while his wife sunk once more into merciful sleep. Half an hour passed, and, at the end of that time, a low knock came at the door, and the Doctor opened it, a man entered the room, and he was muffled up so closely that hardly more than his eyes could be seen. "You are Doctor Maston?" he said, slowly. "Yes, I am," replied the physician. The man suddenly caught the hand, of Marston and shook it warmly. The strange man's next movement was to draw out from under his cloak a small tin box and folded newspaper, both of which he handed to the wondering Doctor. "Before you must read the marked piece of news:—"Wood, an aged man, p

on the top of something firm and nervy, and this is what he read:—

"Dear Doctor Marston.—You are now convinced that the man who swore to you that he was innocent, seven years ago, spoke the truth; I glory in the thought that in this, your dark hour, I can be of service to you. In the tin box you will find the sum of ten thousand dollars—a present from him who owes you his life. Blush not to take it, for it was all procured honestly. As much more money is at your disposal. When the morrow comes, I shall pay you and your family a pleasant visit, when we can chat together and be joyful.

"From your life-long debtor,
"ROBERT JONES."

The contents of the box were emptied out upon the table. Dr. Marston instantly awoke both wife and child to hear the happy tidings.

The sick wife and child of the doctor rapidly recovered, and Marston became a rich and prosperous physician.

#### Our Library Table.

"The Domestic Monthly," New York; \$1.00. Bright and readable as usual; one of the best household magazines, beautifully illustrated, and indigenerable in a company to the state of the sta indispensable in every home.

"Good Housekeeping," Springfield, Mass; \$2.50. A neat, well printed home periodical, containing everything needed for home reading, and always reliable authority on those subjects.

"The Home-maker," \$1.00; Minneapolis, Min. Ever welcome is this little monthly, containing good reading for all, from grandma down to the children.

"Jenness Miller's Monthly," N. Y.; \$1.00. This journal, devoted to woman's dress reform, is certainly wielding a great influence in that direction. The last number contains a cleverly written article upon the subject, accompanied with many illus-

trations of reform dress. Our Dumb Animals," \$1.00; New York. publications cannot fail to have a good influence over the young and thoughless, as well as the

matured. "Ladies' Home Journal," \$1.00; Philadelphia. Truly this journal is all that is claimed of it. The articles are all readable. The instructions for fancy work most explicit, the receipts reliable, and the remainder all good.

"Grip's Almanac," 10 cents. Abounds in fun and good-natured jokes, with numerous comical illustrations.

We have received a copy of the Quarterly Illustrator. It is full of interesting illustrations selected from all the great illustrated periodicals, with a list given of the names and addresses of the artists; 25 cents single copy; 92 Fifth Ave., N. Y

The Christmas number of the "Home-make" is a charming one, printed on good paper, and well illustrated; Union Square, N. Y.

### Concentrated Lye Soap.

All fat and grease from the kitchen should be carefully saved, and should be made into soap by the following method before accumulating and be coming offensive: Boil for six hours ten gallons of lye made of greenwood ashes, then add eight or ten pounds of grease, and continue to boil it. If thick or ropy, add more lye, till the grease is absorbed. You can know when it is absorbed by dropping a spoonful of the melted soap into a glass of water;

if grease remain it will show on the water. If hard soap is desired, put one quart of salt in half a gallon of hot water, stir till dissolved, and pour into the boiling soap. Boil twenty minutes, Seven years passed. It was New Year's day. In the high room of a miserable, poverty-stricken old house, situated in a narrow, dirty street, not far from the watersides a man sat by the bedside of his wife and child. The woman and child were asleep, and on their thin, pinched faces the stamp of poverty was plainly discernible. This haggard looking man, who sat there gazing at the two beings upon the bed, was Dr. Marston.

### MINNIE MAY'S DEPARTMENT

MY DEAR NIECES:—

If the woman who is at all dissatisfied with her limited sphere after reading of the broader and higher sounding occupations of other women, would only take into consideration these facts: That it does not need other women's chances to do heroic deeds. Why, she is doing them every day, though it never occurs to her that those commonplace deeds-duties she may call them-are often fraught with much that is noble and heroic. Does the moral training and physical care of children count for nothing; duties that cannot be shirked or left for anyone else to do; the daily plans for the comfort and amusement of children; the never ceasing demands upon time and attention of household matters, and all these accomplished at a sacrifice of health and often physical suffering, for the constant wear and tear on the dear old mother must eventually tell upon her physical forces. Why should not every woman keep a record of her labors -a diary would hardly do-but keep a book and enter therein every garment she makes, every one she mends, every stocking and sock and mittens she knits, every broken heart and bruised nose she patches up for the children during the day; every siege of measles, scarlet fever, whooping cough, sore throat and cut finger she nurses; not to mention all the little prayers and hymns and stories she teaches; the bread, cakes, pies and buns; to say nothing of the ten hundred and ninety-five meals she plans, prepares and cooks, and often extras. Surely these do not count for nought, as the busy brains and weary limbs of the tired woman will certify. If any nieces would only begin the year by keeping an accurate record in any entry book of work actually accomplished, it would surprise them to know what an amount they have turned out, and to others it might prove they might have done more.

To make home dearer, And dark skies clearer, And brings Heaven nearer, Is woman's work.

The dark, stormy days of winter are especially trying upon children, often being kept in the house from sickness, severity of weather, or other causes, and with nothing to amuse them. To mothers, this is especially trying. She has her usual duties to do, besides the extra work of the children, always noisy and often fretful with the restraint imposed upon them. Some hints may be of use to those who do not live within easy access of stores, or whose means are limited to such an extent that toys cannot be afforded. The piece-bag, a strong spool of thread, needles and thimble, will furnish enough to keep the most restless child quiet for many an hour. Dolls are the delight of every little girl's heart, and such "lovable" ones can be fashioned from cotton and stuffed with wool, eyes painted with a little blue button, the nose pinched and stitched into place. and a little mouth made with a bit of red thread, hair can be furnished from raveling threads of any n or black woollen stuff, then dress the dollie adding stockings cut from an old pair, and a little pair of boots of bright flannel or crotcheted with bright varn. All these may be done at odd minutes if a mother ever has any—and kept for a surprise when most needed. For boys, it is more difficult to furnish amusement, if they are not old enough to read, but I have found a supply of acorns a boon to children. Shew them how to make soldiers, by sticking a little flag in one and placing them in long lines, but pray, my dear niece, do not allow the little ones to do this on the floor; give them a small table or a tray on a stool, never on the floor. Elephants, horses, dogs, cats, mice, rats, indeed nearly all the animal kingdom can be fashioned out of cloth and stuffed with wool. Gay looking birds can be made the same way, and a flat feather sewed on or glued on for wings and tail. Pretty little boats, too, can be made from shingles, and sails and mast

empty pill box, with a few pills in it, covered with cotton or cloth, and a hard roll of cloth added for a handle. Each mother should study the tastes of her children, and try to furnish amusement for them in times of necessity. Do not expect the poor wee things to sit about and amuse themselves all day or days, as often happens during these winter days; show them how to play, and they will easily take to Scrap books are an endless source of amusement to both boys and girls. Collect the pictures at your leisure, and any old book will do to paste them in. A cupful of flour paste and the stiff quill of a goose wing will do for a brush. Need I go on, my dear nieces? These few hints enlarged upon will secure you many a leisure hour, and give your children a taste for occupation which will, perhaps, tell for their benefit in the years to come. MINNIE MAY.

added, to pull about with a string. For the baby a

soft ball of bright crotcheted yarn will keep him quiet

in his high chair; or a rattle can be made of an

#### Fashion Notes.

The fashions for women and girls were never more comfortable nor sensible than they are now. So many styles of hats and bonnets, so many shades of color; in fact, something to suit any face, com-

plexion or purse. Fur is much worn, from the luxuriant seal to the humbler cooney; and so many furs are dyed brown or black, and are to be had at such reasonable prices, that all may have enough of fur about them to give a warmth and dressiness to their winter costume.

There is no particular fashion for wearing the hair; bangs are worn just as much ever, and every woman has the good taste to wear her hair in the most becoming way. There are not so many fancy pins worn as before, and usually the hair is coiled or braided close to the head. Let us hope it may be years again before that untidy style of locks down the back, or flying curls or ringlets, will be worn. All is tant, smooth and neat. The half length cloaks worn this season do not look so comfortable on a stormy day as an old-time ulster, buttoned to the hem of the dress, but all predict that the half-length coat will have a very short reign. It is unbecoming and cuts the figure, be it made ever so well. Muffs are to be seen with every lady, a little larger than formerly, but looking so snug and so admirably adapted to the severe winters of Canada. Black flannel is made into full suits of underclothing drawers and shirts, and with black stockings look very neat and suitable. Veils are little worn now; they have been pronounced injurious to eyesight.

#### Some Thoughts on Cooking.

BY A M. CARSON.

Poverty and ill health are often the result of mismanagement. As an illustration, allow me to point to one of my neighbors. She has a dyspeptic husband, and what does she do for him? Simply coax him to try this doctrine and that, while she feeds him on white bread, fat pork, greasy, watersoaked vegetables, and rich pastry, year in and year out, All the doctors in Canada could not cure a man who lived on such a diet as that. I said something similar to a woman, the mother of a large family of small, sickly children, when she was complaining alout doctor's bills. "Why don't you use Graham flour, fruit, porridge and other plain, wholesome food ?" "Couldn't afford to lay out cash for them things," she replied. "We've got to live on what we can raise at home.

"No; but you can afford to pay the doctor. Oatmeal is cheaper than pork and far more wholesome. It contains as much nourishment as the best fresh meat, the doctors say. It makes a delicious dish for breakfast, or for any meal, when made with milk instead of water-sweet skim milk, I mean.'

"The doctor told us to get Graham flour, but it's dear. Jim says he isn't goin' to pay a big price for a mixture of bran and shorts.'

"Mix it yourself, then," said I. "A friend takes his wheat to a mill where stones are used, and he gets 52 lbs. Graham flour for every bushel of wheat."
"My! If we could only do that!" said she. We use

such a lot of flour and other stuff that we've hard scratchin'

Two other neighbors have been forced to mortgage, then sell their property and move away into a new country, snowed under by an avalanche of doctor's and grocer's bills. One of the men inherited a fine farm from his father, but he didn't care for work, and, like his wife, was very fond of fine clothes and a luxurious table. Had he earned his farm himself, probably he would have taken better care of it and had a comfortable home to-day, instead of being a hired man. The other man was the unfortunate possessor of a wife, whose delicate health was chiefly the result of unwholesome food and ignorance of nature's laws. Good health depends largely on wholesome food and proper ventilation.

Porridge, fruit, well cooked vegetables and Graham flour should be on every table. For the benefit of those who have never tried the latter commodity, I append a few recipes:

Graham Pancakes.—One egg, two cups sour milk, teaspoonful soda, a pinch of salt, and flour enough to make a batter slightly thicker than for white griddle cake. Sweet milk and cream of tartar will do.

Graham Puffs. - One and a-half cups sour milk (I use cup of cream with 1 cup milk), large spoonful of sugar, 1 teaspoon soda, salt, flour to thicken. Bake quickly

Graham Biscuit -The recipe calls for an equal quantity of white and Graham flour, but I use the latter only. Put some Graham flour into your mixing bowl, pour in 1 cup cream, 1 cup sour milk, or 2 cups milk with a little lard or butter, teaspoonful of soda and sugar, and a pinch of salt. Roll out and bake quickly.

Graham Batter Cake. One egg, 1 spoonful sugar, a little salt, I teaspoonful soda, & cup cream, 1% cups of buttermilk, flour enough to make a moderately stiff batter. Pour into a baking pan, bake quickly, and cut in squares

Graham Bread -Two quarts warm water or milk, 4 large mashed potatoes, 1 cup yeast, handful salt, with enough white flour to make a thin batter. In the morning mix with Graham flour, and add 3 spoonfuls molasses, or sugar. Don't mix it stiff, let rise, knead w ll, put in pans, let rise again, then bake. It requires a little longer to bake than white bread. Here is another recipe for Graham Bread. - For one loaf, take 1 cup of white and 2 of Graham flour, 1 cup warm water,  $\frac{1}{2}$  cup yeast, molasses  $\frac{1}{3}$  cup, I teaspoonful salt. Stir with a spoon, let rise once, and bake very slowly.

Graham Pudding -One egg, 2 cup sugar, 1 cup creamsweet, if you have cream of tartar, or sour if you use soda, ½ cup urrants, ½ cup raisins, I teaspoon cinnamon, or other spice. Graham flour to make a batter not stiff. Drop in buttered cups and steam thirty minutes. This makes a light, wholesome pudding.

#### Great Men and Their Wives.

BY J. TORREY CONNER.

It has been said that there is confirmation of the divine wisdom that appointed the marriage relation in the well ordered lives of those happily mated.

Woman, given to man as a helpmate, possesses a boundless influence for good or ill; and no greater truth was ever written than that embodied in the sentiment: "The wife makes the home, the home makes the nation." Take for example, the records of men who have achieved greatness in the world's history, and how often one can trace the gentle influence and hearty co-operation of the loving mentor at the fireside.

Who that has followed the brilliant career of England's prime minister questions that to the care and devotion of his wife, who plays an important though unconspicuous part in his life work, Mr. Gladstone's unimpaired mental and bodily vigor are largely due? It has ever been her selfimposed task to relieve him of all business and household worries, that his time and talents might be devoted to the nation's affairs; and while she, no doubt, occupies an enviable position as the wife of a noted man, it is at the cost of much self-sacrifice.

The wife of Thomas Carlyle also lived a life of abnegation. Wedded to a man who, by reason of an exceeding nervous tem, erament and shattered health, was, perhaps, irresponsible for his erratic moods, she bore with very whim, patiently and uncomplainingly; nor was he insensible of her worth, and at her death no woman was ever more sincerely mourned. In one of his letters to Emerson, after his wife's death, he

"By the calamity of last April I lost my little all in this world, and have no soul left who can make any corner of this world into home for me more. Bright, heroic, tender, true and noble was that lost treasure of my heart, who faithfully accompanied me in all my rocky ways and

climbings; I am forever poor without her A familiar visitor at the home of William Cullen Bryant describes the home life as larely beautiful. After forty-five years of sunshine together, the wife, a gentle minister, living wholly for her husband, the husband at seventy a lover still, the darkness fell, and he was left alone. Of this he "Bitter as the separation is, I give thanks that she has been spared to me so long, and that for nearly a half century I have had the benefit of her counsel and her ex-

Tennyson experienced naught but happiness in his married life, and in lines addressed to his wife, he says:

"Dear, near and true—no truer Time himself Can prove you, though he makes you ever more Dearer and nearer."

Is there anything this side of heaven that can be compared to such companionship !

Benjamin Franklin, after forty years in matrimonial bonds, was able to testify: "We are grown old together, and if my wife has any faults, I am so used to them that I do not perceive them." In the midst of toil and poverty his home was a refuge, where all the petty cares and perplexities of the day were laid aside.

An amusing story is related of Edison, the inventor. A friend passing by his laboratory late at night was surprised to see it brilliantly illuminated, and, entering, found the inventor so deeply absorbed in experiments as to be unconscious of intrusion

"Well, Tom," he remarked, "it is after twelve o'clock;

are you going home to-night?"
"Twelve o'clock? By George! I must go home, sure

enough; I was married this morning. Notwithstanding this little episode, Mr. Edison is said to have been a model husband, and they are a most devoted couple.

In reviewing the lives of our illustrious statemen, we find times of adversity, the promoter of his successes, a guardian angel always.

A helpmate indeed, the woman who stands side by side with her husband, ever ready with words of che r, though often her own courage well nigh fail her. And yet, alas! there are many blanks in the lottery of matrimony, and who shall say wherein lies the fault?

It is said that matrimony is the metempsychosis of people-turning them into different creatures from what they were; but may it not be the proverbial blindness of love that is responsible for ill-assorted unions? Attracted by a lively manner, a be utiful face, as soulless as it is charming, or daz led by the eclat of high position, marriage is rushed in o headlong, only to be repented at leisure when it is found that vivacity is not always good temper, nor a beautiful exindicative of moral worth; while honors, title or wealth, without union of soul, can no more suffice the heart's needs than hunger can feast on dry husks.

Among the men known to fame who "married discord in a noble wife," was Addison, tutor to the young Earl of Warwick. The Countess Dowager, with whom he became associated, was attracted by his gifts of mind and person, and noting this, he was led by ambition to aspire to her hand She accepted his addresses, and became his wife, afterwards treating him as a lackey, never allowing him one moment to forget the difference in their social position, and ignoring those heaven-bestowed talents which placed him, in reality, far ab ve the accidental a vantages of birth.

Dryden also married above his sphere, and his wife wedded him solely for the honor the position would conferupon her; their fate was not a happy one. His thoughts were in the clouds, while hers were of the earth earthly, making it impossible for them to meet on the same plane. On one occasion she told him that she wished to be a book, that she might be favored with more of his company, His reply was: "Be an almanae then, my dear, that I may change you once

Lord Byron wantonly bartered his own and his wife's happiness for his own advancement, and she, not content

Concerning the domestic happiness or unhappiness of Shakespeare, but little is known. His wife, eight years his senior, was of lowly birth, and as he was married when but a mere lad, it is to be presumed that he tired of the bonds of wedlock, for he deserted her, leaving her to care for the little family as best she might; nor was her name again associated with his, although she survived him seven years. Many other instances may be cited where men of note have proved marriage to be, in their case at least, a failure, but we would fain turn from the task. Would that all men's creed was that of the Talmud: "Woman was not made from man's head, that she should rule over him, nor from his feet, that she should be his slave; but from his side, that she might be near his heart." Would that all women were worthy of the creed!-Housekeeper.

### Why the Boys and Girls Leave the Farm.

BY A. M. CARSON.

As the old question of "Why the boys and girls leave the farm" is being revived by a Canadian journal, I venture a few thoughts on the subject. This query introduces the more practical inquiry, "How shall we keep them at home?' In my mind, the solution is easy. Give them, in as great a measure as possible, the coveted pleasures that What are they? Wealth is not one. lure them to town. in three cases out of five The young folks like money, of course, and it is necessary that they have some of their own. But they regard it as a means, not as an end They prefer to scatter it along life's pathway and reap a harvest of enjoyment by the road rather than leave it in one golden pile to be divided and quarreled over by the heirs.

I said it was necessary that they should have some spending money of their own, because I have known boys and girls leaving the farm for lack of this very thing. Mary doesn't want to go to her father every time she wants some postage stamps, a new book, or sheet of music, or some needed clothing, and hear him growling about hard times. And Tom would rather stay home from the lecture, the pic ic or tea meeting than ask the old man for fifty cents or a dollar to take his girl there. Put the young folks in the way of earning some money-earning it, I say, for then it will be more wisely spent. Let the boys have some stock; the girls a garden, some poultry, or whatever they can manage. It will yield them something better than money -a harvest of knowledge.

The other day a young girl the only unmarried daughter of a well-to-do farmer, left home to work as a servant in Uncle Sam's domains. Why? "Because," as her sister said, "father was always a little close fisted, and he growled every time Jennie tackled him for money. So she made up her mind to earn her own living." Her two brothers left home years ago from causes somewhat similar, I think.

Of course, many boys and girls leave the farm, not because they are uncomfortable at home, but because they have the inclination or the talent to fill some one of the many prcfessions, or perhaps some particular trade. And it is right that they should go. We would not keep them, knowing that it is both wrong and unprofitable to force them into distasteful employment. But the tastes of those who are willing to stay under certain conditions should be studied and, if possible, gratified. Are they fond of music? Then let them have a musical instrument. The refining, uplifting and cheering influence of music is not half understood. Have they a taste for reading? Then provide them with the very best literature you can afford Books are as necessary to the mind as food to the body. Starvation in either case is fatal. "A small library of well-selected books in nis home has saved many a youth from war dering into the baleful ways of the prodigal son," says Greeley. The same writer remarks, "The best investment a farmer can make for his children is that which surrounds their youth with the rational delights of a beauteous, attractive home. Many farmers-I see them all around me-have large farms, good barns and ugly, inconvenient houses. One may saf ly ager that the wife and daughters have not much "say in that place, for women are all fend of pretty homes. They hate to be compelled to spend all their time and to entertain their friends among pots, pails and kettles, because the back kitchen cannot be used in winter time. Every family needs a kitchen, dining and sitting-room, however scantily furnished A pretty, convenient house does much toward keeping the young folks at home. "Hardly any labor," says Greeley, "is so well spent as that which makes the wife and children fond and proud of their home." matter how beautiful the house is, if unreasonable faultfinding, severity and selfishness lodge there, the children will soon fice from that earthly pandemonium. Home happiness is the most precious thing on earth. There is only one way to get it, in palace or cottage. "Do unto others as ye would have them do to you

#### A HANDY APRON—A WINTER CONVENIENCE.

Use one yard of strong material. Cut a strip off the side for the band. Then fold in two, having the fold at the bottom. Open the material, curve out the two top corners—the pieces taken out measure eight inches on the straight side. Fold again. This makes two pockets for your clothes pins when you are lining clothes. Face the edge of the pockets, put on the band, and it's done.

Another convenience is a collar-and-cuff band. Use a piece of cotton about a foot square. Fold through the centre; stitch the edges. Then put another row of stitches about an inch from the edge and sow on a row of small buttons between the edge and the stitching. Button the collars and cuffs on this, and there will be no danger of dropping and soiling them when you're in a hurry, as one is very apt to do when the fingers are numb with cold.

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### UNCLE TOM'S DEPARTMENT.

MY DEAR NEPHEWS AND NIECES :-

It has been suggested by some of the puzzlers that we get up a souvenir photograph of all those who have interested themselves in that department during the past few years. Therefore I make this proposition: - That all those who desire to be numbered in this group forward their photos to me, and with them we shall have one large group made, from which copies will be taken, so that every puzzler may have one at the mere cost of production. I hope you will all join heartily in this. I shall be glad to see the pictures of my dear nephews and nieses, and you will see Uncle Tom (not that he is much to look at), and it will form a pleasant memorial of the happy times we have had together. Let me have your photos as soon as possible, please.

The prize selections of poetry will appear again in our next, as well as the names of those who send correct answers gone to a higher life. to January puzzles UNCLE TOM.

#### John Greenleaf Whittier.

E. H. CHASE, IN THE HOUSEKEEPER.

"Love to the world," were the last words of the aged poet as, at the dawn of a beautiful September morning, he passed to a higher life. "Love to the world" was the thought that lay warm at his heart, and stirred and nerved the gentle soul to action in behalt of humanity, through a long and beautiful life. Who shall doubt that when the recording angel "writes the names of those whom love of God has blest," the name of our beloved national poet and friend will be very near the head of the list?

Gentle, unassuming, and naturally inclined to shrink from contact with strangers, yet Mr. Whittier early became the champion of an oppressed race, lecturing and writing in their behalf, and throwing his influence with a very small minority, against a popular and wealthy majority. His letters, at this time, to prominent men, were many and urgent that they would use their influence to better the condition of the slaves of our southern states, and yet, unlike so many earnest workers in that cause, he was able, in his broad charity, to separate the sinner f.om the sin, and to work in a spirit of tolerance and love.

We know the life of John Greenleaf Whittier almost as we know our own lives. It has been lived among us, and has overflowed to us. We can follow him from the time he was a bashful boy, on a New England farm, attending the district school summer and winter, working at shoemaking, and, later, teaching, to pay his way for a term or two at Haverhill Academy. He was modest to such a degree that he shrank from facing William Lloyd Garrison to submit his first poem, and contented himself with pushing it under

the editorial door. We know many of the little incidents of his first attempts at editorial work, to which he was called when he was barely twenty; and of his later return to the farm, at his father's death, to care for the loved ones that remained; and many of us can remember the part he took for ten years prior to twenty-fourth of 360 degrees, which equals 15 degrees, corthe first clash of arms that heralded the civil war, and can date our first real knowledge of him from that time.

Among his most earnest and soul stirring poems are those on slavery. Strong, courageous, Chris ian, they shall live when the blot that caused them to be written shall have

faded except from the page of history.

The poem "South Ca olina to Massachusetts" has in it a power, searching, strong, and bold, yet just, that shows degrees to the westward, and so on until when the ship has Mr. Whittier to have been a man of clear perceptions, sound

Whittier as other than a strong man, and a faithful friend; with the people at home; in other words, the ship has sailed late. and to him is accorded the merit of having been one of the just one-halt the distance around the world (180 degrees), leading spirits in seeking to crush not only the evil of slavery, and has gained exactly twelve hours. Double this and you

slavery, it must also be said that, with many another sincere worker, he was a devotee of peace, and had his own convictions of the many another sincere worker, he was a devotee of peace, and had his own convictions of the many another sincere with the should be accomplished with his fee constantly turned to the west.

Another the eastward, and you will soon find the recomplished with his fee constantly turned to the west.

One gains courage by showing himself poor; in tions of the manner in which this should be accomplished. with his face constantly turned to the west.

Mr. Whittier was truly of the people, and in touch with them, and the press all over the land, not a'one in our own country, but in Europe as well, is filled with tributes of love o him who proved himself so worthy of all love and praise

His poems for liberty, and for the truth, were struck off at a white heat, and every line rings with patriotism and strong conviction of right. His songs of places show his passionate love of Nature, and his intimate acquaintance with her in her most secret haunts. His Snow Bound is an dyl, complete, true, and picturesque, showing his love for the beautiful in common things. To the real New Englander, is a fadeless picture of the dear, old home.

His ballads are most felicitous and smooth-flowing, with perfect simplicity of form and language that is their own peculiar charm; and his poems of friendship, most of which are loving tributes to friends on some noteworthy occasion pour out the warmth of a loving and true heart.

It seems but yesterday that there came to us the beautiful lines of his greeting to Oliver Wendell Holmes on his birthday, and yet, to-day, the hand that penned them is still, and the Christian soul whose faith was so strong has

Whittier's poems were not all of his writings. There are many prose works, as well, and through them all there speaks the deep life and the upspringing faith of a truly Christian man.

These later years have been years of devotion, and strong growth in spiritual life, and we have reached to him for

comfort and encouragement, which was sure to come.

As a man he was strong and true; as a poet he was prophetic and inspiring, yet, after all, it was his simple, loving spirit, the spirit of the Master whom he served, for which we loved him.

Mr. Whittier died at the dawn, whose breaking, for ears, he had loved to watch, and which, while his brief llness lasted, he had loved each day to see creep over the nills, and as the light came into his window, proclaiming the birth of a new day, his niece stooped to catch the last words which the tender lips just parted to give. "Love to the wor'd," came to her ears almost as the spirit took its flight to the morning land.

Lucy Larcom, Sarah Orne Jewett, and other friends

were remembered in his will, and all his manuscrip s and lette s were left to Samuel T. Pickard, a very dear friend, than whom none could have been selected who would accept the trust more lovingly, nor carry out the wishes of Mr. Whittier more faithfully.

#### Gaining and Losing a Day.

A QUEER FACT EXPLAINED IN A VERY SIMPLE MANNER. You often hear some one who thinks himself "cute" telling how sailors in circumnavigating the globe "gain" a day.

Such persons, says the St. Louis Republic, almost invariably third a conjunction; my whole a clever personage. mention the "gain," but it is seldom you hear of the 'lost" day, which can also be dropped out of the existence in making a trip around the world. The facts are these: If he goes to the east he gains a day; to the west he loses one. It comes about in this way: There are 360 degrees of lengitude in the entire circle of the earth. As the world rotates on its axis once in each twenty-four hours, one responds to a difference of one hour in time. Now, imagine a ship sailing from New York to the eastward. When it has reached a point 15 degrees east of the starting point the sun will come to its meridian, or noon line, one hour sooner than t does at the point from which the ship sailed. When the ship has reached a place 30 degrees east of the sailing point reached a point 180 degrees from the place of sailing it will The later years of retirement, prosperity, and peace, have given the American people no cause to think of Mr can readily understand how the day is gained in sailing In saying that he was a leading spirit in seeking to crush around the world to the eastward, and you will soon find the

#### Puzzles.

1.-ANAGRAM.

Murder! Murder! Did you hear that cry? Hark! Listen! What is that? That man IS ALMOST INSANE, you say; He's killing the old grey cat.

2—Charade.

Volume twenty-eight, of the dear old Advocate,
Has its TOTAL life begun;
And twice every month we'll greet its welcome face,
So cheery and LAST of fun.
And many new friends, we hope, will join our band,
To gladden our old uncle's heart.
Oh! once they have joined they'll like it so much,
That from it they'll be loath to part.
For much may be learned in our columns each day,
That will be found of great PRIME.
Then our family join and some puzzles send,
Either in prose or rhyme.

ADA ARMAN

ADA ARMAND.

FAIR BROTHER.

3-RIDDLE (Phonetic.)

My first is a title you often may hear;
My second we hope for at the close of each year;
Though we hope for my second, if with it we should meet,
It even then seems to be a COMPLETE. ADA ARMAND.

#### 4-Beheading.

Oh! say! Miss Lily Day,
You that live down by Chaleurs Bay,
Do you think I'll leave the "Dom,"
After getting such a hearty welcome from you.

And then, Mister Fair Brother Hopes I mean to stay; Of course I do, dear sir, Back forever, that is what I say.

Now we get the Advocate, Shall we not have a time, Twice a month; oh! say! Making puzzles that do not rhyme. In and out of season,
We're guilty of no all;
If we thus go struggling on,
Though they have no rhyme or FINAL.
HENRY REEVE.

5—CHARADE.
Happy New Year, hail to thee,
Now the old year pass away,
As thy smiling face we see;
Shall we work or shall we play.

Cousins all, for the sake of days of yore, Join our charmed circle once more; Lonely will be Uncle Tom, you know, If we all forsake him so. From puzzledom do not TOTAL,
If a prize you do not LAST;
Stay FIRST Uncle Tom another year;
Nail your color to the mast.

HENRY REEVE.

HENRY REEVE.

7-ENIGMA. 7—ENIGMA.
They say I'm the gem of the ocean,
A pearl both precious and rare;
I shine like an emerald in darkness,
But for daylight I have no care.
They say I'm the root of all evil,
My delight is to be left alone;
I ramble about in the evening;
The forest I choose as my throne.

They say that I sparkle with beauty,
I'm worn on the head of our Queen;
Though adorning the necks of fair ladies,
I never a lady have seen.

They say that I bring with me sunshine, You'll find me in every home; You may pick me up on the seashore, For there in abundance I roam. FAIR BROTHER.

8-Buried Proverb. A, e e e, g g, h h h, i i, n n n n n, o o, r, t t t, u, v v.

FRED. HALL.

#### Wise Words and True.

Better three hours too soon than one minute too

Let friendship creep gently to a height; if it rush to it, it may soon run itself out of breath. Good taste rejects excessive nicety; it treats

TROTTER & TROTTER, GENERAL DEALERS IN

## LIVE STOCK.

Outfits Bought and Sold. A CONSTANT SUPPLY OF

HORSES ALWAYS ON HAND. Correspondence invited with all desiring to buy or sell horses. The stables are new and fitted with every convenience, and situated on Sixth Street, having large and well ventilated stalls and boxes capable of holding over one hundred horses.

### A. TROTTER. BRANDON. B. TROTTER. 27:2-y-m FOR SALE

Stallions. Choice

"GROVE SLASHER"—Shire.
"WILD BOY"—Clydesdale.
"LANSDOWN"—Blood.
"ADVANCEMENT"—Cleveland Bay.

T. W. PARADINE, BINSCARTH, MAN.

## BRANDON HORSE EXCHANGE Imported Clydesdales and Holstein Cattle.

S. L. HEAD, Rapid City. Young Bulls and Stallions for sale. Also the Thoroughbred Stallion "HEMLOCK," bred by Clay & Woodford, Runnymede Stud, Ky. Sire Hindoo (or Imp. Billet), dam Mattie Amelia, by King Alfonso. 28-2-y-m



THOS. HARKNESS 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.

## SUPERIOR YOUNG STALLIONS NOW FOR SALE!

ALSO A CHOICE LOT OF JERSEY CATTLE, Registered in A. J. C. C. Correspondence Solicited. Quality and prices right.

All the above are registered, and will be sold right. For pedigrees and particulars address -ADVERTISE IN THE ADVOCATE

#### "BIRTLESIDE" FARM.

Maj.-Gen. H. C. WILKINSON, C.B., Prop'r. WM. DRUMMOND, Manager.

Pedigreed Imported Clydesdales, Shorthorn Cattle, and Registered Shropshire Downs, Young animals from the above stock for sale. One and a-half miles from Birtle Station, on the M. & N. W. Correspondence solicited.

"ROSEDALE" STOCK FARM MANITOU. R. D. FOLEY, Proprietor,

Clydesdale Horses, Shorthorn Cattle, &c. Rev Banner Oats for sale.

DR. BARNARDO'S

GENERAL LIVE STOCK BREEDERS.

Shropshire Sheep and Berkshire Pigs for Sale.

E. A. STRUTHERS, Marager, RUSSELL, MANITOBA

#### WANTED.

A partner in an oatmeal mill at Portage la Prairie, with about \$3,000 capital. Apply to MARTIN & ANDERSON, Bounters, Portage la Prairie, Man. 335-b-om

#### FOR SALE.

1 Clydesdale Stallion, Imp., No. 1516 (544) 6.6 No. 1518

Mare, Imp., No. 1441 (In Foal.) I Heavy Draught Stallion, Imp., No. 849

" Mare " No. 779 (In Foal). 20 Crade Clydesdale Mares, in Foal to Imp. Sire.

A Herd of 9 Head of Shorthorn Durham Cattle. All good stock, good pedigrees, and will be sold cheap, as I have sold my farm.

ENOCH WINKLER, Gretna, Man.

R. J. PHIN, Shorthorn - Breeder.

A few choice young Bulls for sale. MOOSOMIN, 33-2-y-m ASSINIBOIA

#### STOCK GOSSIP.

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

Hugh Thomson, St. Marys, Ont., writes:—My cattle all doing well. Have just sold to Mr. Valentine Ficht, Oriel, P. O., an excellent young bull; still have two more good ones. Enquiries for cattle quite brisk.

We are pleased to learn that sales have been good at the Fort Rouge poultry yards. The proprietor, Mr. S. Ling, informs us that his pullets are laying well, and that he will be able to supply eggs for hatching next month to parties wishing early settings.

Messrs. Collyer Bros., Welwyn, Assa., N. W. T., offer for sale their five-year-old Clydesdale Stallion, Wallace. This horse was bred by Messrs. Sorby Bros., of Guelph, Ont.; he is sired by Imp. Farmer Lyon, his dam being Imp. Lady Emm. Wallace is a good horse, with capital action, which he inherits from his sire, Farmer Lyon, who was a neat, clever getter.—See ad. A proof that the ADVOCATE is the best mean

A proof that the A DVOCATE is the best means for advertising anything in the Dominion, is shown by the fact that Mr. D. Honeywell, of Carman, sold two farms through his ad, which appeared in the November issue only. The places he sold were:—N. W. & Sec. 10—6.4-W, for \$2,200; E. & Sec. 13—6.3-W, for \$3,000. He also sold two town properties at \$2,000 and \$700 respectively. We hope Mr. H. will continue to make sales.

make sales.

We were favored recently with a visit by a member of the firm of D. Fraser & Sons, of Emerson, Man., who, besides carrying on an extensive stock farm a few miles from town, also deal in implements, lumber, etc. They have recently dehorned twenty-five head of feeding steers, and are very much pleased with the change effected, The operation was quickly performed, occupying only two hours, including catching, tying and dehorning the whole twenty-five head. The most important part in the operation is having a proper place for holding the animal. They have a number of Shorthorns, of which special mention will be made later.

## MANITOBA FARMS.

TWO CHOICE FARMS FOR SALE.

with house and other improvements, 4½ miles from Summerberry, on the main line of the C. P. R. Also 120 Acres about one mile and a half from Silver Plains Station, on the Z. P. R., about 30 miles from Winnipeg.

Apply to

JOHN WELD,

London, Ont

## OR \* SALE \*



The Clydesdale Stallion WALLACE

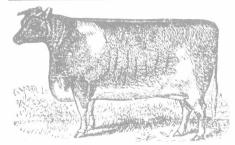
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3, C. C. S. B., bred by & O. Sorby; color bay; ded June, 1888; si e rmer Lyon (334°). First m, imp. Lady Eurned 2], by Prince Charley); second dam, Dunton Bell (192°), by Tops. (886); third dam, lly, by Dounty Davy b; fourth dam, Topsy. Scotsman (747). Wal-

he will prive himself an impressive getter. Write for particulars and extended pedizree to

MESSRS. COLLYER BROS., Welwyη, Assa., N. W. T.



BESTRONGUET SHORTHORN STOCK FARM. BESTRONGUET SHORTHORN STOCK FARM, Joseph Laurence, Proprietor, Clearwater, Man. Ten Shorthorn Bulls for sale; also three young Heifers, got by Imp. Warrior. My herd took fifty-one prizes in 1892 at Pilot Mound, Crystal City and Cartwright Shows; also took one and two Herd prize at each place. I am also prepared to book pedigreed large Yorkshire Pigs, for spring delivery, at \$6 each. Prices for cattle low, and terms to suit purchasers. 38-2-m.



#### PIONEER HERD of SHORTHORNS

WALTER LYNCH, Prop, Westbourne, Man.

Fifteen first and one second herd prizes in sixteen years. A choice lot of young bulls for sale. 29-2-y-m

### AYRSHIRES AND BERKSHIRES FOR SALE.



ORANGE BLOSSOMS and PERFECTIONS. All the femal

MY BERKSHIRES

are good in quality and FINELY BRED. WRITE for PRICES

and particulars, or come and see my stock. G. C. WELD.

WINNIPEG, MAN.

Duke of Lyndale = 13660 = and 18th Duke of Kirklivington = 3077

at head of the herd. Bulls, Cows and Heifers at Reasonable Prices.

GREIG BROTHERS Kingswood Farm, - OTTERBURNE, MAN. 35-2-y-m

THORNDALE

JOHN S. ROBSON

PROPRIETOR, MANITOU, - MAN.

Breeder and Importer of Shorthorn Gattle.

Correspondence solicited.



## SHROPSHIRES AND

Imported and Canadian-bred Shropshires

#### TEN RAM LAMBS

FOR SALE FROM IMPORTED SIRE AND DAM.

I have a choice lot of registered Improved Large Yorkshires from prize-winning stock at Winnipeg Exhibition. Twenty young pigs for sale now. Prices reasonable. Write or ome and see stock. E. J. REID, 26-2-y-m Souris P. O. and Station, Man. come and see stock.

J. A. S. Macmillan, IMPORTER AND BREEDER OF

PURE-BRED SHROPSHIRE SHEEP, BOX 183, BRANDON, MAN.

and.

The pen of Shearling Ewes that won the champion prize over all England were out of a flock of forty that I bought from Mrs. Barr, of Odstone Hall

I have spared neither time nor money to put together the best flock of sheep I could buy in England, and for size, quality of wool and uni-formity of character, cannot be surpassed. Ram Lambs and Ewes for sale at moderate prices,

JOHN QUGHTEN.



Willow Brook Stock Farm, Crystal City, Man.

Pedigreed Ram Lambs for sale. Clydesdale Stallions for sale.

### IMPROVED LARGE YORKSHIRES

For sale, from imported Boar, Prices away down Correspondence solicited.



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ENGLISH -- BERKSHIRE

PIGS. All bred from imported stock, and registered. Orders booked any time for pigs.

Pairs Supplied not Akin.

E. J. DARROCH, Minnedosa, Man. 27-2-y-m

Breeder and Importer of High Class Poultry. STOCK FOR SALE. H. W. DAYTON, Virden.



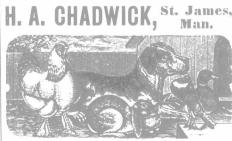
= REID'S = POULTRY YARDS Breeder of Black Minorcas, Black Breasted Red Games, White Wyan-dottes, Light Brahmas. Also for sale cheap, some good Pekin Drakes, Barred Plymoute Rock Cockerels and good Singing Can-aries.

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#### FOR THIS MONTH ONLY

will sell four Cornish Indian Game Cockerels. \$2.50 each; six pullets, \$1.50 each; one trio of Brown Leghorns, \$3; one trio of Black Minoreas, \$4.50. This is a Bargain for anyone. Send stamp for reply.

H. K. ZAVITZ, Lock Box 143, CARBERRY



Light and Dark Brahmas, Buff and Partridge Cochins, Barred Plymouth Rocks, Black Langshan, Black Spanish, Pit Game, Guinea Fowls and Black African Bantams. A few Fowls for sale of each variety. I won 14 first prizes out of 16 entries in 1891, and 10 firsts, 7 seconds and 1 third in 1892, at Winnipeg Industrial Exhibition. Send stamp for catalogue and price list.

34 2-y-m



EXHIBITION GAMES.

BLACK-BREASTED

INDIAN GAMES that won first and special premiums at the Winnipeg In-dustrial Exhibition in 1891 and 1892.

30-2-y-m J. LEMON, Winnipeg, Man.

- FORT .. ROUGE -

POULTRY YARDS

Won at Winnipeg Industrial, 1892, on Wyandottes, 4 first, 2 second and 1 third; Rocks, 2 first, 2 second and 2 third; Brahmas, 2 third; Langshaus, 1 second; M. B. Turkeys, 3rd. For sale—A few choice breeding birds cheap till Dec. 1st, to make room for winter. Can supply Myers' Poultry Spice, 40c. per packet. Write

S. LING, WINNIPEG. MAN-

FOR SALE. choice pairs of BLACK LANGSHAN Chicken nported Stock. Langshans are a GRAND FOWL y hardy and stand the Manitoba winter better lost other breeds. For table use, they are the

W. S. FOSTER. PRICES MODERATE. 36-2-b-m



PLYMOUTH ROCKS. A CRAND TRIO FOR \$5.

C. W. ECKARDT,

Hazleton Fruit and Poultry Farm, n Ribgeville, Ont.

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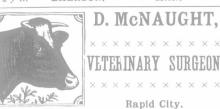
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Wallace's Register complete. Dentistry a
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27-2-y-m D. H. McFADDEN, V.S,

Dominion Government Quarantine Officer. EMERSON, - - - MAN. 28-2-y-m



. S. ROE, V.S.,

NEEPAWA, DISTRICT VETERINARIAN FOR NEEPAWA AND DAUPHIN DISTRICT. Treats all Diseases of Domesticated Animals.

36-2-y-m Office: HARRISON'S DRUG STORE. DR. W. R. TAYLOR,

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|----------------------|-------------------------------------|-----------------------|---|---|
| 11.40a               | 2.55p                               |                       | Winnipeg  | 1.00p 3.00a   |
| 7.30p                |                                     |                       | Morris  | 2.30p 7.30a   |
|                      | 12.53p                              |                       | Lowe Farm   | 3.03p 8.15a   |
|                      | 12.27p                              |                       | Myrtle  | 3.31p 9.05a   |
|                      | 12.15p                              |                       | Roland  |   |
| 4.46p                | 11.57a                              |                       | Rosebank  | 4.02p 9.58a   |
|                      | 11.43a                              |                       | Miami   | 4.15p 10.25a  |
|                      | 11.20a                              |                       | Deerwood  |   |
|                      | 11.08a                              |                       | Altamont  |   |
|                      | 10.49a                              |                       | Somerset  |   |
|                      | 10.33a                              |                       | Swan Lake   | 5.24p 1.00p   |
|                      |                                     |                       | Indian Springs  | 5.39p 1.30p   |
|                      |                                     |                       | Marieapolis   | 5.50p 1.55p   |
| 12.22p               | 9.50a                               |                       | Greenway  | 6.06p 2.28p   |
|                      |                                     |                       | Balder  | 6.21p 3.00p   |
| 11.04a               |                                     |                       | Belmont   | 6.45p 3.50p   |
| 10.26a               |                                     |                       | Hilton  | 7.21p 4.29p   |
| 9.49a                |                                     |                       | Ashdown   |   |
| 9.35a                |                                     |                       | Wawanesa  | 7.47p 5.16p   |
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| 8.10a<br>7.30a       |                                     |                       | Martinville   | 8.55p 7.30p   |
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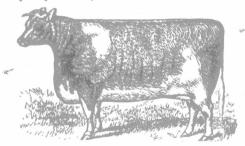
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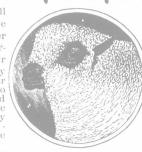
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Choice stock of all ages for sale at reasonable prices. Imported Nominee at head all ages for sale at reasonable prices. Imported Nominee at head of herd, assisted by Imported Boars Condit, Luck and Moorish King. Farm two miles south of G. T. R., C. P. R. and E. & H. R. stations. Correspondence and inspection of herd solicited. Reduced rates on shipment by express.—J. J. PAYNE, Chatham, Ont.

## FARMERS, READ THIS

We will pay extra for fat pigs bred from Tamworth and Improved Yorkshire boars, as they are worth more money to us. We have imported a large stock of these pigs, and have on hand ed a large stock of these pigs, and have on hand a choice selection of imported and home-bred boars and sows. Write us for prices, which are as low as they can be made, this being a business entirely of a secondary consideration with us, our first object being to supply the trade with an A I article in bacon, and we are satisfied that these are the breeds that pay both the feeder and the packer. Send in your orders quick and get a good in-pig sow, or a boar to use on grade sows.

JAS. L. GRANT & CO. Ingersoll, Omt. 320-2-y-om

Y 20, 1893

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ETSVILLE. E PIGS.

LLE(IME) inspection ord, Bran 314-y-om

HILL, ONT. c., C.P.R.) hire, Berk-ected from king orders ocust Hill, 320-2-y-om RKSHIRES between 3 H. S. BAR-318-2-y-om

lle pedigreed arge York-Pigs Herd found-our AIM is to advertise us. MAN,

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s and sows ld. Prices Breeder of horns, box 318-2-y-om

NG. ONTARIO,



nee at head ars Condit, hipment by **Int.** 

d from Tam ars, as the ave on hand s, which are eing a busi-eration with y the trade re are satis-eay both the your orders or a boar to

& CO. Omt.



J. N. GREENSHIELDS,

AND ARE PREPARED TO BOOK ORDERS.

. . WRITE FOR PRICES. . .

## "ISALEIGH GRANGE FARM."

GUERNSEYS. The Sweepstakes Herd of the Dominion, with the gold medal bull, "Ontario's Pride," at its head.

We have no heifers for sale, but can spare one or two bull

calves by this famous sire.

J. Y. ORMSBY, V. S., Manager. SHROPSHIRES.

We have just landed nearly 100 head of Shearling Rams and Ewes from the flocks of R. Thomas, R. Brown, T. Meares, G. Thomson, Wm. Thomas and J. Thonger, including several noted winners. We offer for sale an extra choice lot of shearlings of both sexes and a few lambs. 322-2-y-om

N.B.—Our prices will be found most reasonable, and we offer special inducements to buyers from a distance. Visitors most welcome and met by appointment. Address all communications to the Manager, J. Y. ORMSBY. Station, telegrams and letters, Danville, P. Q.

PIVOTED LAND

(PATENTED.)

A STEEL ROLLER, THE DRUMS OF WHICH OSCILLATE ON PIVOTS AND ADAPT THEMSELVES TO THE UNEVENNESS OF THE GROUND.

Its points of advantage are too many to enumerate. Some of them are:

The bearings are the only wearing parts and are guaranteed to last from Ten to Fifteen Years, and can be replaced at a nominal cost.

It rolls all the ground, no matter how rough. There is no axle shaft, no strain, and con sequently no wear. It is easily oiled between the drums.

THE DEMAND IS STEADILY INCREASING. IT IS UNANIMOUSLY RECOM-MENDED BY THOSE FARMERS WHO HAVE USED IT.

Orders are now being booked for the spring trade.

Description and price furnished on application to

T. T. COLEMAN, SOLE MANUFACTURER,

SEAFORTH.

320-2-y-om THEN DO IT ECONOMICALLY CHOP YOUR GRAIN:

> -WITH A-WATEROUS CHOPPER

t Elevates the Grain; Shakes out Nails. Straws Bolts. Etc.; Grinds 20 to 40 Bushels per hour. and BAGS THE CHOP.

GRINDING SURFACES,

BEST FRENCH BUHR STONES.

Unequaled for Durability.

WATEROUS, - Winnipeg, Man. 33-y m

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NEW !!

CIRCULAR.

Grape Vines and Berry Plants.

Planters will find it to their

SHIRE HORSES. - A grand young imp. stallion

IMPROVED YORKSHIRES.—Young stock of all ages at farmers' prices.
WHITE HOLLAND and BRONZE TURKEYS.—
Orders booked for young birds for fall delivery.
Correspondence solicited. Prices on application.
318-2-y-om WM. MULLEN, Hillsburg, Ont.



STOCK GOSSIP.

We would draw the attention of payties needing a first-class Shorthorn bull to the advertisement of Mr. Struthers, manager of the Barnardo Farm, Russell, Manitoba.

J. A. Mullen, of Cyprus River, writes to this office that his poultry have done splendidly during the past season, and that he has something extra in B. B. R. Games. He is desirous of having the Manitoba Poultry Association take immediate steps in arranging for a poultry exhibit at the World's Fair.

exhibit at the World's Fair.

Joseph Laurence, of "Reotrouquet Stock Farm," Clearwater, writes us that he has recently purchased a new bull to head his herd of Shorthorns, now numbering over thirty head, as his own bull Warrior 2nd = 15070 = was too closely related to his young heifers. He has secured Mina Chief, a rich roan calved Feb. 1892; bred by Arthur Johnston, Greenwood, Ont., got by that celebrated sire of prizewinners, Indian Chief, out of Mina Victor, etc. Mr. R. Nicholson, of Sylvan, Ont., says of Mina Chief, that he is one of the best young bulls to be had in Ontario to-day.

NOTES FROM MR. DRUMMOND, MANAGER FOR

NOTES FROM MR. DRUMMOND, MANAGER FOR MAJOR-GEN. WILKINSON, "BIRTLESIDE FARM," BIRTLE, MAN.

MAJOR-GEN. WILKINSON, "BIRTLESIDE FARM," BIRTLE, MAN.

The stock on the farm are all doing remarkable well. The imported Clyde stallion, Forrest Prince [1186] (5007), is looking well, and we anticipate for him a big season next year, as his colts are beginning to show up well. We have six very finely youngsters from him this year, and ten mares in foal to him again. We have made several very good sales lately, namely:—A black four-year-old gelding to Mr. R. Burdette; to Mr. Collis, of Raven Lake, the imported Shropshire ram Pilgrim Father (4958), and to Mr. Molson, Solsgirth, the bull calf out of Banshee, by Barrister 2nd = 12609=, all at very satisfactory prices. The pure-bred cow Kalista dropped a very fine bull calf the other day, by Barrister 2nd, and we have also some other very promising youngsters' all doing well. We have a small flock of very fine registered Shrops, and we are using the ram Puritan 27318, by Pilgrim Father (4958), on them this year, and expect a crop of extra fine lambs next spring.

Father (4958), on them this year, and expect a crop of extra fine lambs next spring.

Fairview Stock Farm, Carberry, Man., the property of Mr. John Barron, was recently visited by one of our staff. His fine Shorthorns, about twenty-five (25) in number were found in comfertable winter quarters and thrifty condition. There was besides a fine lot of grade steers being fattened that show well the advantages of good breeding. A few thoroughbreds amongst this lot exhibited the superior breeding qualities of the breed to a still greater degree. His excellent stock bull, Barrington Waterloo, is one that possesses not only such qualities as mark his progeny with good fattening characteristics, but from a show standpoint his record at the Winnipeg Industrial in 1891 speaks for itself. There were many individuals worthy of special mention, but space will not permit. A fine bull calf by Barrington Waterloo, out of Lady Fairview 2nd —17341—, attracted our attention, being very promising. Mr. Barron has also a fine lot of pedigreed Berkshires from Mr. J. C. Snell's importations that are good representatives of the breed, and the young stock are strong and growthy, some of them being of splendid form. From these good selections for breeding purposes can be made.

THE BANNER ASSOCIATION.
Report of the American Shropshire Association for the year ending November 1st, 1892:—
RECEIPTS.
To balance on hand November 1st,

Total receipts during the year. 13,123 75 EXPENDITURE. \$ 2,194 17

5,252 95

Total number of members Nov. 1st, 1891... 737

Total number of members Nov. 1st, 1891... 737

"" added during the year... 301

" Pedigrees accepted during the year... 3,424

" Transfers made during the year... 3,426

Membership is divided as follows:—Michigan, 196; Canada, 163; Ohio, 132; New York, 110; Indiana, 94; Illinois, 79; Pennsylvania, 50; Iowa, 37; Wisconsin, 33; Missouri, 20; Minneapolis, 18; Sout's Dakota, 17; Vermont, 13; West Virginia, 10; North Dakota, Virginia, 6; Kansas, Manitoba, Massachusetts, 5; Maine, Connecticut, Northwest Territories, New Hampshire, Colorado, 3; California, Nevada, 3; Kentucky, 2; Nebraska, Rhode Island, New Jersey, Maryland, 1 each.

\$14,083 17

THE VALUE OF ADVERTISING IN THE ADVOCATE.

We are in receipt of a letter from Mr. H. K.

Zavitz, of Carberry, in which he says, "I have received so many enquiries for fowls, through my advertisement in the Advocate, that I sold all I can spare just now."

all I can spare just now."

Mr. Winkler, of Gretna, hands us the following letter from one of the customers he go through the Advocate:

Dear Sir.—I received the young White Yorkshire boar you shipped me, and I am more than pleased with him. I intend to breed him to twenty-five high grade Berkshire sows. As a butcher, I find the white hogs the most profitable for cutting up, as the fat and lean are better mixed. Enclosed please find \$10, with much thanks for being so prompt. I would like to have him called "Ulster Hero," so as to make an "Irishman" of him.

Yours truly,

James Convery, Planters will find it to their interest to patronize a Canadian Nursery. Varieties are offered most suitable to our climate; use less sorts discarded. My stock is graded with scrupulous exactness, and is true to name.

Everything new and old in the nursery line deemed worthy of distribution. Having seventy-five acres in fruit here I can, and will give freely, good advice to customers. Send now for a free and useful catalogue and price list to Helderleigh Farms Nursery. E. D. SMITH, Prop., Winona, Ont.

Windle Farms Nursery. E. D. SMITH, Prop., Winona, Ont.

Morris, Man.

### If you want the best value for your money. If you want an article that will never disap Proprietor. IMPROVED YORKSHIRES. Our last importation, just landed, includes 1st prize winners at the Royal and other leading shows in England, and we are now prepared to show against any herd in the world, bar none. Send in your orders for young nigs.

you want thoroughly good and healthy Baking Powder, into which no injurious ingredient is ever permitted to enter.

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McLAREN'S COOK'S FRIEND

IS THE ONLY GENUINE. The Best Grocers Sell It.

R. PARKER & CO., DYERS AND CLEANERS

Ladies' and Cents' Wearing Apparel, Ostrich Plumes, Damask, Lace and Repp Curtains, Etc., Cleaned and Dyed.

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**HEAD OFFICE AND WORKS:** 

787 TO 791 YONGE STREET, TORONTO Express and Post Orders promptly attended to. Send for Pamphlet; contains Price 315-2-y-om and Color List.

BAIN BROS.



### Best Sleigh in the Market!

Because it is the lightest running, shortest turning; never cuts off; is always in line; no wearing of box or rack; no splitting of bolster or reach; never buckles; can be backed like a wagon; built of the very best material; strong and durable.

- WE ALSO BUILD -

Bain Bros,' Improved One-Bench Man. Bobs

With longer runners, faced with two-inch spring steel shoes. These are especially adapted for logging and heavy teaming. ALSO MANUFACTURE AND CARRY IN STOCK A FULL LINE OF THE

Celebrated Brantford Bain Wagons, which are so well and favorably known.

-ALWAYS ASK FOR-BRANTFORD WAGONS and SLEIGHS 326-2-y-om

THEGODERICH SHOULD WRITE FOB PHOTOS AND PRICES WE LEAD THEM ALL IN STYLE TONE & FINISH AGENTS WANTED IN EVERY TOWN

-2-y-om

# Horse Owners! Try

A Safe Speedy and Positive Cure The Safest, Best BLISTER ever used. Takes the place of all liniments for mild or severe action. Removes all Bunches or Blemishes from Horses and Cattle. Superseptes ALL CAUTERY OR FIRING. Impossible to produce scar or blemish. Every bottle sold is warranted to give satisfaction Price 31.50 per bottle. Sold by druggists, or sent by express, charges paid, with full directions for its use. Send for descriptive circulars. THE LAWRENCE-WILLIAMS CO., Cleveland O.

## STRAW CUTTERS,

Root Cutters, Horse-Powers, -Bevel Jacks, -Fanning Mills, Harrows, Rakes, - Plows and Mowers,

At prices that will save you money. Write us for cuts, circulars and prices.

WATSON MFG. CO., Ltd. WINNIPEG, - MANITOBA. 38-a-m



FORT ROUGE GREEN HOUSES WINNIPEG.

Braxton&Bowyer, Props.

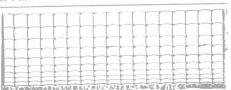
All kinds of bedding outplants, choice table plants, and all kinds of cut flowers. Function of the country orders promptly attended to. Wellgrown vegetable plants a specialty. A warded several first prizes at Winnipeg exhibition. Send address for our FREE Catalogue. 37-f-m

SEEDS .-- FRESH AND RELIABLE.

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SPRINGS IN A FENCE.

The large steel wires forming the horizontal bars are practically coiled-springs their entire length. IT WILL GIVE AND TAKE, BUT NEVER SAG.

Page Wire Fence Co. of Ontario, Ltd.,

SOLE MANUFACTURERS-BLATCHFORD'S PATENT COMBINED

SUPERIOR ELEGANT IN DESIGN. IN FINISH.

None but the best materials used, and the most experimed and skilled workmen employed.
These expans cost no there than any other. If we have no agent in your virility, write for our flustrated entalogue and pice list.
N. R. Reitable agents wanted in Manitoba and N. W. T.

31 2-y-m

The finest Illustrated Catalogue ever issued in Winnipeg of Flower, Field and Vegetable Seeds.



Window Bedding and Vegetable Plants. Canary Birds, Bird Novelties & Bird Seeds.



I am head quarters in all the above lines, having nnes, naving practical ex-perience in every branch, and for 10 years have been act-ually growing plants, flowers pants, nowers and vegetables from the seed I handle right here in Winni-peg, and there-by know what is best for this climate. climate. The season here is short, and if you miss

by having poor

the one chance by having poor seeds or a variety of seeds or a variety of seeds that are not suitable for this climate, your chance is gone, and your crop is lost for the season. The catalogue will be brim full of useful information, and you can't find a better on earth to get what you want in anything I handle. Practical experience is far ahead of theory; don't run the risk of having no crop through getting bad seeds. I have the means of testing all seeds as to variety, germinating quality, etc., no other seedsman in the city having such facility. Therefore, it will pay before purchasing your supply of seeds, etc., to send for our handsome catalogue, which will be sent free to any address. One cent will buy a post card, place your name and address on it, and simply say that you want a catalogue for '93, AND YOU'LL BE ALL SOLID. on it, and simply say that you want a for '93, AND YOU'LL BE ALL SOLID.



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Florist to

their

Royal

The

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RICHARD ALSTON,

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705 Main Street, WINNIPEG, - MANITOBA,

Will furnish, in large or small quantities, to parties building, the celebrated

than tin; water and fire proof; not af-fected by heat or cold, and quickly put on, making it the most economical roof-

Enquiries regarding it promptly answered. 30-2-y-n

ESTABLISHED 1860 KIRKPATRICK & CUUKSUN Commission Merchants, - Montreal

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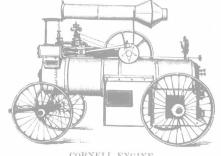
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Cornell Engines, -:-Advance Separators, Monarch Separators.

FULL LINE OF PLOWS, WACONS, ETC.



MOODY & BOYD'S 3 and 6 Horse Powers and Separators.

OFFICE: 144 Princess St., Winnipeg P.O. Box 1319.

33-2-y-m

GEO. McCULLOCH & CO.,

Manitoba, Manufacturers of the Celebrated Rapid City Yarn, Blankets, Flannel, Kersey, Tweed, etc. The highest cash price for Wool. Extra inducement to farmers for Wool in exchange for goods. Samples on request.

28-2-y-111