

Technical and Bibliographic Notes / Notes techniques et bibliographiques

The Institute has attempted to obtain the best original copy available for filming. Features of this copy which may be bibliographically unique, which may alter any of the images in the reproduction, or which may significantly change the usual method of filming, are checked below.

L'Institut a microfilmé le meilleur exemplaire qu'il lui a été possible de se procurer. Les détails de cet exemplaire qui sont peut-être uniques du point de vue bibliographique, qui peuvent modifier une image reproduite, ou qui peuvent exiger une modification dans la méthode normale de filmage sont indiqués ci-dessous.

Coloured covers/
Couverture de couleur

Coloured pages/
Pages de couleur

Covers damaged/
Couverture endommagée

Pages damaged/
Pages endommagées

Covers restored and/or laminated/
Couverture restaurée et/ou pelliculée

Pages restored and/or laminated/
Pages restaurées et/ou pelliculées

Cover title missing/
Le titre de couverture manque

Pages discoloured, stained or foxed/
Pages décolorées, tachetées ou piquées

Coloured maps/
Cartes géographiques en couleur

Pages detached/
Pages détachées

Coloured ink (i.e. other than blue or black)/
Encre de couleur (i.e. autre que bleue ou noire)

Showthrough/
Transparence

Coloured plates and/or illustrations/
Planches et/ou illustrations en couleur

Quality of print varies/
Qualité inégale de l'impression

Bound with other material/
Relié avec d'autres documents

Continuous pagination/
Pagination continue

Tight binding may cause shadows or distortion along interior margin/
La reliure serrée peut causer de l'ombre ou de la distorsion le long de la marge intérieure

Includes index(es)/
Comprend un (des) index

Title on header taken from: /
Le titre de l'en-tête provient:

Blank leaves added during restoration may appear within the text. Whenever possible, these have been omitted from filming/
Il se peut que certaines pages blanches ajoutées lors d'une restauration apparaissent dans le texte, mais, lorsque cela était possible, ces pages n'ont pas été filmées.

Title page of issue/
Page de titre de la livraison

Caption of issue/
Titre de départ de la livraison

Masthead/
Générique (périodiques) de la livraison

Additional comments: /
Commentaires supplémentaires:

This item is filmed at the reduction ratio checked below /
Ce document est filmé au taux de réduction indiqué ci-dessous.

10X	14X	18X	22X	26X	30X
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
12X	16X	20X	24X	28X	32X

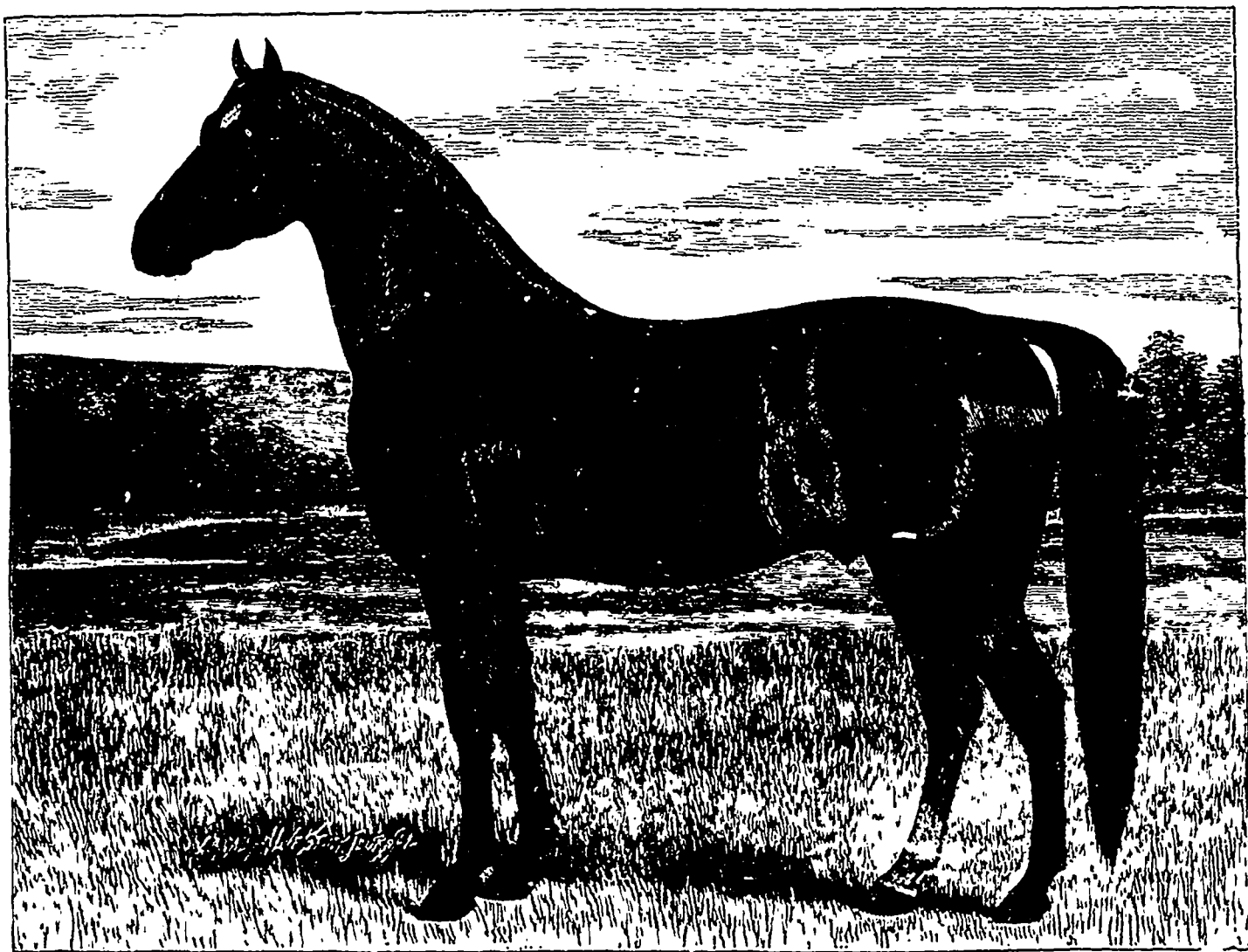
THE CANADIAN LIVE-STOCK AND FARM JOURNAL

DEVOTED TO THE INTERESTS OF THE STOCK-RAISERS AND FARMERS OF CANADA.

VOL. IV.

HAMILTON, CANADA, AUGUST, 1887.

No. 46



THE STANDARD BRED TROTTING STALLION BLIZZARD (3751).

The property of Mr. Geo. A. Forbes, Woodstock, Ont.

The Trotting Stallion Blizzard (3751).

Our artist has produced a fine representation of the standard bred trotting stallion Blizzard (3751), owned by Mr. Geo. A. Forbes, proprietor of the Commercial Hotel, Woodstock, Ont. He is only one of a number of good horses of this class owned by Mr. Forbes during recent years. This handsome horse, bred by Col. R. P. Pepper, Frankfort, Ky., is a dark bay, 15 $\frac{3}{4}$ hands high, foaled 1884, and weighs 1250 lbs. With the best of feet and legs, he gives every indication of being a trotter of the first order. With an excellent gait, plenty of size, a flowing mane and tail, ample spirit and an admirable eye, he promises at the present time to be a very superior horse. His pedigree is fully equal to his individuality. He was sired by Onward, with a record of 2.25 $\frac{1}{4}$, the sire of Emulation, record 2.29 $\frac{1}{4}$. Onward was sired by Geo. Wilkes, record 2.22, the sire of Harry Wilkes, 2.13 $\frac{1}{2}$, and of more than fifty others with records better than 2.30. Horses with Wilkes blood are amongst the highest priced of this class at the present time.

Blizzard's dam, Little Fortune, is by Scott's Thomas, record 2.21, the sire of Largesse, 2.25 and of J. W. Thomas, 2.27 $\frac{1}{4}$; 2nd d., Gourlay, by Planet; 3rd d., Flora G., by Lexington; 4th d., Fanny, by imp. Margrove.

Onward's dam, Dolly, is also the dam of Director, 2.17, and Thirsdale, 2.22 $\frac{1}{4}$, the latter the sire of Edwin Thorne, 2.16 $\frac{1}{4}$, Daisydale, 2.19 $\frac{1}{4}$, and two others with records better than 2.30, by Mambrino Chief.

The Meeting of the International Association of Fairs and Exhibitions.

The third meeting of this association was held in the Rossin House, Toronto, on the 27th and 28th July. The various sessions were very happily presided over by the president, Col. A. A. Stevenson, Montreal. The attendance of the delegates from the United States was not large, but those who did attend, including a number of ladies, manifested a lively interest in the proceedings. All the delegates and visitors were presented to Mayor Howland at the reception given in the City Hall, and in company with

his Worship, Aldermen Frankland and Piper and others, the whole company were shown the sights of the city, and on the evening of the 4th treated to a sail on the lake and a banquet later in the evening. Papers were read at the different sittings of the association by H. Wade, secretary Agricultural and Arts Association; A. Blue, department Minister Agriculture; S. C. Stevenson, secretary Per. Exhibition, Montreal, and T. Shaw, Hamilton. An important motion amongst others was carried relating to the holding of a mammoth exhibition in Chicago in 1892, the fourth centenary of the discovery of America. The progress of to-day is simply bewildering. Four hundred years ago men laughed at the Spanish visionary, as he was regarded, for hinting at the existence of another world, while now its northern half is the home of no less than sixty millions of the most progressive of mankind.

The next meeting of the association will be held in Chicago, November, 1888. These meetings cannot but tend to the introduction of more of uniformity in the methods of managing exhibitions, and of uniformity that always points in the direction of improvement.

Canadian Live-Stock & Farm Journal

PUBLISHED MONTHLY BY

THE STOCK JOURNAL COMPANY,

48 John Street South, Hamilton, Ont.

Terms, \$1.00 per Annum in Advance.

THOMAS SHAW, RIVERSIDE FARM, EDITOR.

To Subscribers.—Subscription price, \$1.00 per annum in advance. Single copies, 10 cents each; sample copies free. No names will be removed from our subscription list when in arrears and without we receive instructions to that effect. Those in arrears will be charged \$1.25.

Clubs.—Any person is at liberty to form clubs. Clubs of five copies to any address, for one year, \$4.00. Clubs of ten copies to any address, \$7.50.

To Advertisers.—Advertisements of an appropriate nature will be inserted in the JOURNAL at the following rates: For a single insertion, 18c. per line, nonpareil (12 lines makes one inch); for three months, 15 cents per line each insertion; for six months, 13c. per line each insertion; for one year, 10c. per line each insertion. Cards in Breeders' Directory, not exceeding five lines \$1.50 per line per annum. Copy of advertisements should reach us not later than the 25th of each month (earlier, if possible). If later, it may be in time for insertion, but often too late for proper classification. Transient advertisements payable in advance. No advertisement inserted for less than 75c.

To Correspondents.—All communications intended for publication in the JOURNAL should reach us by the 15th of each month—sooner if possible. We do not hold ourselves responsible for the opinions of correspondents.

Remittances may be made in registered letter at our risk. The receipt of the JOURNAL will be sufficient evidence to subscribers that their remittances have been received.

All communications to be addressed STOCK JOURNAL CO., 48 John Street South, Hamilton, Ont.

HAMILTON, CANADA, AUG., 1887.

THE production of animals of a high order should be the aim of every person who is engaged in growing stock. The inferior product is always slow of sale, and at a price more or less reduced, whether it be an article produced by the manufacturer, the artisan or the farmer. When the annual search is made for males to breed from, the best are first picked up, then the commonplace, and last of all the culls, which, if sold at all, will be sold at a greatly reduced rate. Although we may not avoid it altogether, we should aim at having no culls, and those we have should be got rid of first, not last, as the longer they are kept, the greater the amount of the loss relatively resulting from keeping them. The taste of the world is becoming more fastidious. The consumers thereof are growing more and more dissatisfied with inferior productions, particularly in dietetic lines, so that those who will not get out of the old rut and mend their ways must inevitably be left behind. Young men especially must have strangely constituted minds who can content themselves with the dead level of mediocrity attainment. We say to every young man on the farm, come out from the midst of such a thing; be a leader in your line. You may be if you only will.

WHEN men engage in any manufacturing business they usually take much pains in getting information from the best sources. They visit the manufactories that have proved the most successful, and study the methods there practised which have led to this success. We would that those who take up the breeding of good stock always showed like wisdom. Some, because they have beaten their neighbors at the local exhibitions with grade stock bred at random, leap to the conclusion that they are fully equipped for taking up the breeding of a better class of stock. They fail to consider that good stock is not usually bred at random, more than good grain uniformly produced is the outcome of unsettled and irregular methods. They would find it a safe investment to visit the herds of successful men and study their methods, to post themselves thoroughly in the art of feeding, in the nature of

the stabling most suitable, and what is a far rarer acquisition than either of the above, the art of breeding, comprising the suitable coupling of animals, and the blending or non-blending of strains in a way that is most likely to produce the result which is sought. With some men this sort of skill is almost, as it were, intuitive, but with most it is the outcome of the most diligent observation and the most patient study.

SOME young farmers of ability and enterprise do not invest in improved stock from the mistaken notion that they cannot produce prize animals without having a large herd, or from the fear that their herd will be so little noticed by the general public that they will not be able to sell profitably. Looking at the matter thus is viewing it from a standpoint that will prove misleading. The possessor of one animal may have a show animal if due care be exercised in the first purchase, and where the herd is small there is a better chance for uniform excellence than where it is large, as the larger the herd the larger the proportion of the weeds produced, and the less perfect, in all probability, the care. We have one herd in our mind in the Province of Ontario that never had twenty representatives in it at one time, that has well nigh captured the first place at our leading show-rings, and no difficulty has been found in getting sale for the surplus at good prices, let the times be what they may. Excellence in any department or line of life is sure to command the attention which it deserves ultimately, although for a time it may plod along unnoticed. In many counties of Canada there is yet abundance of room for the introduction of good pure-bred animals of the various breeds. Which of our young men will step out of the ranks and commence the forward march?

WHEN the winds of March are very cold we get a little impatient sometimes, and this impatience is apt to find utterance in expressed hankerings after a softer and a sunnier clime. In our forgetfulness we fail to realize that this long winter has its compensations. No land is to be found on the surface of the earth where a diversity of live stock exists of a high order, that is so free from disease as our own. And is not this largely due to the purifying influences of our long, cold winters? We should not be rash in complaining, then, if Hudson Bay and Labrador give us sometimes what we consider an over-amount of their oxygen. Our soil is good and crops usually abundant, and in such a case we should rather feel thankful than otherwise that we have an atmosphere so eminently fitted to preserve health in both man and beast, where these are kept in conditions at all in accordance with reason. While we enthusiastically engage in building big barns and show the utmost diligence in filling them while the days are warm, let us rather rejoice that we live in a land where almost every kind of live stock worth possessing can be reared in such perfection and kept in a vigor that is most encouraging. Why, the live stock of the balmy south will not for a moment compare in size or quality with what our country produces.

"BREED to the best and from the best, and ultimate success is a foregone conclusion"—so writes "G" in the *National Live-Stock Journal* for May. While this is certainly true, there may be much difference of opinion as to what is *the best*. To select a sire with a short pedigree simply because of his individual excellence, without regard to the character of his ancestry might prove most disappointing, and to use an inferior specimen because of the excellence of his ances-

try might prove equally disappointing, as in the former case we might breed after his ancestry, which might be very inferior, and in the latter case after himself, which would certainly be inferior. In this country, where improved stock often passes rapidly from one to another, and especially where much of it has been imported, it is difficult to get information as to the character of their ancestry, but where this can be done it will be found to repay the time abundantly that is so spent. Even breeding to the best and from the best may be in a sense disappointing if the lines of consanguinity are long and close. While the possession of every desirable quality may be obtained and these may be developed in harmonizing proportions, each may be lacking just a little in quality, in which case the introduction of fresh outside blood will be found advantageous if judiciously chosen.

Too many farmers, it is to be feared, fall into the mistake of breeding horses for farm work just a little too light for what is required of them. It is not enough that a team be just able to plough a field comfortably when the conditions are favorable, for there may be good reasons as to why that field should be ploughed sometimes under conditions less favorable, in which case they would fail to accomplish the task without serious injury to themselves. They should be strong enough for the ordinary work assigned them to enable them to retain a reserve power, as it were, of unexpended strength, in which case they may be expected to wear. Neither man nor beast, nor machine can long stand the wear and tear of work that requires the expenditure of strength which taxes it to the utmost. It is a foregone conclusion that in such a case the capacity for work must speedily diminish. Farmers have been largely led into this mistake by being necessitated to use the same team on the farm and on the road, but there is less necessity for this now, as on large farms a span of light horses may be kept for the road, and in most places the markets are being more conveniently located. We should try rather and produce a class of horses for the farm whose effort in doing their work would be that of an engine on a down grade rather than the opposite of this, which is so often the case at present.

A SUBSCRIBER of Cheapside, Ont., in a letter of remittance, closes an interesting epistle with this sentence: "Not having the means to purchase pure-bred stock I am endeavoring to improve what I have, and in this endeavor I have been very much aided by the reading of the JOURNAL." Canada wants one hundred thousand young men throughout her provinces such as the writer of that letter. Like thousands of others he has not the cash to enable him to purchase pure-bred stock, but he has what so many have not, the desire to improve such stock as he has. He is laboring in that spirit which tries to make the most of opportunities, and in this he is trying to do what he can, not attempting to do what he cannot. It was duty done in this spirit that once upon a time drew forth the most magnificent commendation ever given or received. There is no man living in the Dominion an owner of inferior stock but who might improve them if he would, and that with very little extra outlay—just the using of a better male and giving increased attention. Scrubs, even, might be wonderfully improved in this way, if their owners so willed it. But the learner is at work. The stock of Canada is better than it was five years ago, and five years hence it will be better still. What grieves us is, that the farmers are content with an arithmetical ratio of progression when it should be and might be geometrical.

An Editor's Idea of Fairness.

On the 7th of February we read a paper on "Robbing the Land," before the Dairy Association of the County of Huntingdon, P. Q. The following criticism appeared in the *Farmer's Advocate* for April, headed, "Our Government and its Confederates Preach False Doctrines in the Methods of Restoring the Fertility of the Soil":

To the Editor of the *Advocate*:

SIR,—Prof. Robertson, of the Model Farm, Guelph, and Mr. Shaw, of Hamilton, have recently been down east, attending "Farmers' Conventions" and lecturing, the former on the "Model Dairy Cow," and the latter on "Robbing the Land." Among the places visited was Huntingdon, P. Q., and I have been reading the report of the meeting there as given in the *Gleaner*, published in that town. As both of these gentlemen at that meeting, and most likely at others also, expressed and reiterated opinions which are erroneous and misleading, I request the use of a small space in your widely circulated journal to point out to farmers (and the lecturers) where they are in error.

Mr. S., in his paper, makes some very good points. He says: "A man who crops continually and puts back nothing will leave his children a farm on which they cannot make a living. No soil is so rich that it cannot be exhausted," etc. But when he goes on to say that an *exhausted farm* can be restored to fertility from its own resources while selling off beef, he is grievously in error. Yet, in answer to a question, he repeats it thus: "I deny that a farmer cannot sell off a certain quantity of produce without impoverishing his soil. The fertility can even be increased while doing so." He had doubled the fertility of his farm in eight years, all the while exporting beef. Does any one really believe that a farmer can take the hay, grain, roots or whatever it may be that he grows, feed that to cattle, sell off the beef, putting back only the manure, and by so doing increase the fertility of the farm? The thing is absurd. It is true that cattle raising or dairy farming will not run down a farm as quickly as grain growing, but the exhaustion will come just as surely, if not so rapidly. He confutes himself, however, because he says: "A day is coming for artificial manures, but there is no use buying them while we are wasting the manure we have." Now, why mention artificial manures at all, if farmers can double the fertility of their farms in eight years, at the same time exporting beef (and making money at it, I suppose), as he says he did.

He also says: "Artificial manures ought not to be used unless the farmer knows what his land lacks and how to apply them. Ashes are better than phosphates or guano." The first part of this piece of advice is like that of the fond mother who advised her boy not to go into the water till he learned to swim, and he might as well say that salt is better than sugar, as say "ashes are better than phosphates or guano." How is a farmer to find out what his land needs unless by trying different things? If land needs ammonia, 1000 bushels of ashes per acre would not supply a particle of it, but a small quantity of guano would.

SUBSCRIBER.

To this somewhat singular production we sent a reply, accompanied by the following letter:

Hamilton, April 15th, 1887.

W. WELD ESQ.,

Ed. and prop. *Farmer's Advocate*, London, Ont.

DEAR SIR,—In your issue of April (p. 105), I am criticised as I think unfairly and untruthfully, and as my name and address are distinctly designated you will please allow me to put myself right in the columns of the *Advocate*. To that end I have prepared a short reply which you will find enclosed. I have purposely refrained from making long quotations from the attack of "Subscriber" lest I should trespass on your space.

Truly yours,

THOS. SHAW.

The reply read thus:

AN UNFAIR ACCUSATION, AND UNTRUE.

Ed. *Farmer's Advocate*.

DEAR SIR,—In your April number, p. 105, is an article headed "Our Government and its Confederates Preach False Doctrines in the Methods of Re-

storing the Fertility of the Soil," and signed by "Subscriber." I believe, sir, you will have the fairness to allow me to reply, as I am distinctly designated, and to insert the same in your May issue; and well knowing the value of space in an agricultural monthly, I will promise to be brief.

It is unjust and untrue for "Subscriber" to charge me with being a "confederate" of the Government. It is true that I read a paper on "Robbing the Land" at the Dairy Convention of the county of Huntingdon, P. Q., on Feb. 7th, 1887, going down there all the way expressly for that purpose; but I did so solely on the invitation of the secretary of the Association. Not a line passed on the subject between the Government of Ontario and myself, or any of the officials thereof, in reference to the reading of this paper or of any of the other papers that I read at the Farmers' Institutes. In every instance I went at the invitation of the secretary or president. It is therefore unfair and untrue to charge me with being a "confederate" of the Government, although if it were so I would not be ashamed of the connection.

I am next charged with "Preaching False Doctrines in the Methods of Restoring the Fertility of the Soil." I did say that the fertility of land can be maintained while selling off from it beef only or dairy products, without any additional enrichment other than it will itself provide, if judiciously managed, and so I still believe. I did say that in this way I had doubled the producing power of my own farm in eight years, and can furnish the evidence if necessary. I did not say that the fertility of "exhausted" farms can be restored in this way, but I believe it can, only it will require a longer time. I am willing to argue this point, Mr. Editor, with "Subscriber," or yourself, or any other living man, in the columns of your paper, or on any platform that may be named within a reasonable distance.

I did say, as "Subscriber" represents, that the day for the use of "artificial manures" is coming, and that it was unwise to buy these while we were allowing our present sources of enrichment to waste, and I have met with nothing since that in any way alters this opinion. All men will not grow beef or dairy products, and when those who do not have first husbanded their home resources of manurial enrichment, it is far better that they should buy artificial manures to supply the lack caused by the selling of the grain.

I did not say that "ashes are better" (intrinsically) "than phosphates or guano," as "Subscriber" states. I said that ashes allowed to waste on the farm would give a better return for the timely application than purchased phosphates or guanos. And so I say now.

My paper on this subject I read by request at the annual meeting of the Ontario Creamery Association. This association also requested of me leave to publish it in their annual report, so that if "Subscriber" will exercise a little patience he will know exactly what I said; and, if then, he or any other man wishes to criticize it, I am ready.

Truly yours,

THOMAS SHAW.

This letter appeared in the *Advocate* for May, p. 12, but with one of the most vital sentences left out, as will be seen from our second letter below; a sentence which has a qualifying influence on the whole letter. The editor of the *Advocate* added a foot note, which reads:

Our correspondent, "Subscriber," did not call you a "confederate" of the government; no such word was used in his letter. The heading of the letter contained the indictment, which he did not write. We take the responsibility of this charge, and shall defend ourselves if necessary. We will give you limited space to defend your theories, and we sincerely hope you will succeed, for nothing can give greater satisfaction and profit to our readers than the knowledge of a system of husbandry by which they can maintain and increase the fertility of their soil by returns from its own sources. We welcome short and pointed arguments from all quarters, "Subscriber" included, but woe to him who handles the question in such a manner as to attempt to bamboozle our readers; we shall reserve our most caustic pen for him.

A second reply was sent on the 16th May, as below, but which never appeared:

AN UNFAIR ACCUSATION AND UNTRUE.

EDITOR *Farmer's Advocate*,

DEAR SIR,—I was not a little surprised to read in your comments on my letter in the May number of the

Advocate, headed "An Unfair Accusation and Untrue," the following statement: "Our correspondent, 'Subscriber,' did not call you a 'confederate' of the government; no such word was used in his letter. The heading of the letter contained the indictment, which he did not write. We take the responsibility of this charge, and shall defend ourselves if necessary."

This most singular statement gives a different complexion to the whole affair. We naturally imagined that we were crossing swords with "Subscriber," but by your own acknowledgment you are responsible for the heading of "Subscriber's" letter, and it is just this heading that contains the essence of the charges of which we complain as "being unfair and untrue." You herein charge us (1) with being a confederate of the government and (2) with preaching false doctrines in the methods of the restoring fertility of the soil," which virtually shifts our contest from "Subscriber" to yourself.

Now, Mr. Editor, I do not know exactly what is in your mind when you use the term "confederate of the government," but you evidently apply it in the sense of a stigma, clearly shown by the tenor of the article which it heads, and by your linking it with the term "indictment." The term "confederate" may mean (a) an ally, (b) united in a common cause, or (c) formed in alliance. Now, it is impossible that such can be the relation which any one holds to the government by undesigned coincidence, for one cannot be an ally, unite in a common cause, or form an alliance, without having previously made certain stipulations to that effect. There cannot be an alliance without terms of the same having first existed.

I most emphatically deny that I have ever even tried to treat with the government as an ally, or attempted to form any alliance with them. I never held an office under the government, save that of overseer of highways along side my own farm, nor have I received one cent from the government by way of consideration for anything that I have ever done. I call upon you, Mr. Editor, not to "defend yourself," as you strangely put it, but to substantiate the charges which you bring against me, which I hold as unjust and untrue—it is the part of the accuser to make good his accusation—that I have been or am a confederate of the government of Ontario, in any other sense than in the main being in sympathy with it.

We will reserve the defence of "our theories," to which you refer, to another issue, as your space was so taxed last issue that you omitted the closing paragraph of our letter, which we regard as the most important sentence in it, having a qualifying influence on all the rest. It reads thus: My paper on this subject I read by request at the annual meeting of the Ontario Creamery Association. This association also requested of me leave to publish it in their annual report, so that if "Subscriber" will exercise a little patience he will know exactly what I said, and if, then, he or any other man wishes to criticize it, I am ready.

I believe, sir, you will have the fairness to publish my communications on this subject in full, and I promise you I will make them short. In justice to myself I ask it, and for the honor of editorial fairness. A grave charge is brought against me in the columns of your paper, and I appeal to your honor as a journalist and as a man to give me that opportunity of defending myself which you yourself would desire if placed in my position.

Truly yours,

HAMILTON, 16th May, 1887.

This second reply was accompanied by a letter which reads thus:

Hamilton, May 16th, 1887.

W. WELD ESQ.,

Ed. and prop. *Farmer's Advocate*, London, Ont.

DEAR SIR,—Please find enclosed a second paper from me defending myself in reference to the attack made upon me by "Subscriber" in the *Advocate* for April. Please oblige by publishing this paper in the June issue. My last letter was only published in part. This must have been unknown to you, as I cannot believe that you would be so unfair as to allow a serious charge to be brought against me in your paper and then garble my letters of defence. I will not believe this unless forced to. I trust, therefore, that this letter and all succeeding ones that you receive from me on the subject may be published in full in the *Advocate*. Strike my statements as hard as you please, but give

me a Briton's privilege of making them in my own defence.

Truly yours,

THOS. SHAW.

The only response to this appeal, which was surely a reasonable one, was the following:

London, Ont., May 20th, 1887.

THOS. SHAW ESQ., Hamilton, Ont.

DEAR SIR,—Your favor of the 16th is received. We should be real sorry to do you any injustice, but we think you are wandering from the point at issue. You have already said in our columns that the Government had nothing to do with your paper read before the Huntingdon Dairy Convention; also that you would not be ashamed of being styled a confederate of the Government. If you are in sympathy with the agricultural policy of the Government, you should certainly confederate with it in the carrying out of its plans. We struck nothing out of your article which was material to the issue. We shall certainly not advertise your papers, or any other part of the Government literature, because we are not in sympathy with it, believing it to contain a lot of unreliable and useless information. But in justice to you we have written to "Subscriber," asking him to send for a copy of the report containing your article on "Robbing the Land." You know very well that letters come into all newspaper offices without headings, or with inappropriate headings. It was quite consistent with Subscriber's article to say that you "preached false doctrines," and we will give you a fair hearing so long as you state your case in unmistakable language, and use no words except those required to prove your arguments. The question of your being a "Confederate" of the Government does not belong to this present issue, and can be settled hereafter. You have made a challenge, make your vaunting true, and minor matters may be dealt with afterwards. We wait your reply.

Yours respectfully,

W. WELD.

On May 24th we replied to this letter as below:

W. WELD, Esq.,

Ed. and prop'r *Farmer's Advocate*, London, Ont

DEAR SIR,—Yours of 20th instant came to hand in my absence, and I reply first opportunity. You say (1) you think I am "wandering from the point at issue." Pray, sir, how can that be, as in both my letters to the *Advocate* I first take the first point at issue—the charge that I, myself, have been and am a "confederate" of the government, which charge was repeated by you when commenting on my first letter. (2) "We struck nothing out of your article material to the issue," and yet you struck out the most vital point relating to it, a paragraph that would have told all your readers where to get my paper, when they, including the "Subscriber," could judge for themselves as to its contents. (3) "In justice to you we have written to subscriber, asking him to send for a copy of the report containing your article on 'Robbing the Land.'" If you do this in justice to me, in the line of your own reasoning, is it not justice due me that you should so inform every reader of the *Advocate* whom "Subscriber" has so misled? And this is the very thing you failed to do in your issue publishing my first letter, and which now you refuse to do. (4) "The question of your being a 'confederate' of the government does not belong to the present issue, and can be settled hereafter; you have made a challenge, make your vaunting true." I hold this is the first of the two vital questions, and so held in both my letters, a charge brought by yourself which I deny, and again challenge and defy you to prove it true, which you know you can not. Publish first what I have written, and I will then have a guarantee that may convince me of the honesty of your desire to publish what I would then write in reference to the remaining points at issue in the order in which you, yourself, have placed them. In justice to one attacked without any provocation in the columns of your paper, I appeal to your sense of honor as an editor to give me a fair chance to defend myself. Have not I at least an equal right with you to judge as to what is important in that defence?

Unless my correspondence already sent you is published all further correspondence on the subject is only a waste of time.

Truly yours,

THOS. SHAW, Hamilton.

The only response to this appeal was an editorial in the June issue of the *Advocate*, p. 162, of a whole column, pouring out abuse on a man whose defence

they were afraid to publish, and two columns from the so-called "Subscriber," page 168, who occupies a front room in the office of the *Advocate*, third flat, combatting the arguments of one who was first attacked and then denied the privilege of reply. What a valiant man the writer of the papers just referred to must be! How bravely he can fight when he knows that his antagonist is not in a position to use his weapons!

We have published every word thus far save the two articles in the June number of the *Advocate* just referred to, and in all calmness we ask the readers of the JOURNAL, is not the editor of the *Advocate* a fair-minded (!) man, and is he not exceedingly anxious to do to another as he would have another do to him?

The Breeding and Management of Swine.

BY W. H. M'NISH, LYN, ONT.

This paper was read at the county of Wentworth Farmers' Institute last winter, and is very cheerfully accorded a place in the JOURNAL. It is a valuable contribution on the subject of which it treats:

It is, indeed, a matter of great satisfaction to those who take a deep interest in the live stock interests of this province, that such a marked improvement in the management of stock has taken place within the past few years. Antiquated and wasteful methods of breeding and feeding are slowly being discarded, and more economical and intelligent management is taking the place of treatment, which, though thought wise by our fathers, we must regard as positively cruel.

But while such a marked change for the better is to be noted, there is much still to be done by the average farmer of Ontario, and there is probably no department on the farm in which there is more scope for the adoption of correct methods of treatment than in the management of swine. They are undoubtedly better treated than formerly. I know that in the majority of cases they are no longer as they once were—the vagrants of the farm, wandering about without any visible means of support, with scarcely a spot they could lay claim to as their own; driven by necessity to dishonest means of gaining a precarious livelihood by pillage and plunder, the daily trial of the good housewife, whose kitchen garden too often bore marks of their visits, and many times daily emphatically warned that he was trespassing, by a shower of brick-bats of all descriptions.

No animal on the farm has better claims for good treatment. The development of the great American West and Canadian North-west into such an enormous grain raising territory has so lowered the price of grain that we are being driven from that branch of farming and are being compelled to adopt stock raising and dairying as a means of increasing the fertility of our farms and swelling the size of our bank account. Dairying and swine rearing go hand in hand. There are large quantities of food on the dairy farm which, if not fed to swine, is wasted, and the importance of the dairy interests of this province, which are increasing every year, demand that all the products of the dairy be utilized in such a way as to bring the largest profit to the farmer.

It is the purpose of this paper to briefly outline what several years of experience and observation warrant us to consider as the proper treatment of this domestic animal. Like anything else the most important point is a proper beginning, and that is "the selection of a suitable pair from which to breed." If the farmer has the means, his best plan is to select a pair out of one of the many desirable pure breeds. I will not here attempt to compare the merits of the different breeds. They all possess many desirable points. If, however, his means will not allow him to at once procure pure breeds, I would advise him to select the best sow within reach and breed her to a pure bred boar. The sow should be selected carefully. Let her be compactly built, with small bones, a straight, broad back, hams wide and deep, and above all things possessing a contented disposition and a good appetite. Avoid one with a rambling, discontented disposition; they almost invariably make poor mothers.

I wish specially to direct attention to the importance

of breeding to a pure bred boar only. It is the only way to bring native or grade stock to a high degree of excellence, and if the farmer faithfully follows this for several years he will be able to produce animals of which he may be proud, and that alligator breed, which we so often see adorning the roadside, would rapidly disappear—that breed whose strong points are a large head, lop ears, long legs, large bones, cat hams, razor back, slab sides and an unceasing squeal. Do not make the common mistake of breeding to scrub or even grade animals. I know that in speaking so strongly on this point, I oppose the views and teaching of one of our self-constituted authorities on live stock—the editor of one of our agricultural journals. I am willing to pin my faith to improved breeds of stock of any kind. I contend that the nearer to pure bred your stock is, the better it is; that every judicious infusion of pure blood into a herd adds to its value, and it passes my comprehension how any journal, professing to be burning with zeal for the interests of the Canadian farmer, can consistently advocate such a suicidal step as to abandon the rearing of pure bred stock and return to the common stock of our fathers. We might as well be asked to cast aside the self-binding reaper and again grasp the hand sickle of our grandfathers.

I would like to sound a note of warning against breeding the sow to the boar when too young. It is apt to ruin the constitution of the sow, and the pigs frequently are small. It will be found that a year old is about the proper age, so that at farrowing time she will have reached maturity and be fully developed.

Do not accept as true, what seems to be an almost universal belief among farmers, that a sow in farrow in order to produce the healthiest pigs, should be kept on a low diet. I feel certain that in the majority of cases, where sows have produced weak and flabby pigs, the cause arose not from high feeding—that bugbear of so many minds—but from too close confinement in unhealthy quarters. The average farmer of this province very seldom errs on the side of over-feeding. I would, therefore, advise a liberal diet, consisting in winter of equal parts of ground oats, bran and shorts, thoroughly cooked, varied by dry peas or corn and a few mangolds or other roots. In summer a grass run may take the place of roots, and the sour milk and whey from the dairy, together with a little grain, will be found a sufficient feed.

As farrowing time approaches the sow should be removed to suitable quarters. If the weather be cold the room should be warm, and great care should be taken to prevent the young pigs from getting chilled. To guard against this I have found it to be an excellent plan to have in readiness a barrel filled with clean, dry straw. In this place the young pigs as soon as they are farrowed, and throw over the top a thick woolen blanket. The heat generated by the pigs and retained by the blanket, will keep them perfectly warm. After the sow has finished farrowing, the pigs can be removed from the barrel and placed where they may suckle the dam. While farrowing the sow should have the closest attention. If she has been kindly treated and is accustomed to being handled, she will not in the least be disturbed by one's presence. Should she attempt to devour her offspring, remove them out of her reach, and when her labor pains are over place them again with her, and in the majority of cases she will treat them kindly. Her irritation, in most cases, is caused by her fevered condition and does not mean that she has a fierce disposition. If, however, in spite of this precaution she persists in devouring them, she is worthless as a breeder. Fatten her at once for the market. It is so very difficult to break a sow from this vicious habit that the experiment is not worth trying.

For a week or ten days after farrowing the sow should be fed exclusively on warm feed, consisting of bran and a little milk. She should also have a supply of pure cold water always within her reach. This latter attention is too often neglected. She is in so fevered a condition that her thirst is incessant, and it is positively cruel to neglect this simple attention. As the pigs grow older her diet should be more liberal, and should consist of shorts and ground oats, thoroughly cooked. When the pigs are three weeks old the male animals of the litter should be castrated, and when they have reached the age of six weeks the litter should be weaned. If properly done, their growth need not be stopped in the least by weaning. They should be taught when three or four weeks old to eat by placing in the pen, out of the dam's reach, a little sweet milk in a shallow vessel. In a short time they will drink quite readily, and by weaning time

will be able to care for themselves. They should have an abundance of sweet milk until at least two months old. This may seem extravagance, but experience has taught us that it pays.

After the pigs have been weaned, the sow, if she is to be retained as a breeder, can be again bred to the boar. If properly managed a sow will produce two litters a year just as well as one. When a sow proves to be a good breeder in every respect, by all means keep her for that purpose as long as she lives. Her value on any farm is difficult to estimate.

For young pigs no better food can be found than milk and shorts. We have now reached the most critical stage of the pig's existence, and it is just here that the great fatal mistake is often made. They are too often placed with larger animals and robbed of their proper share of food. They are often placed on coarse sour food, which their young stomachs can not digest. Scours and other ailments follow; their growth is stopped; they become stunted, and no good attention afterwards can repair the damage done to their constitutions.

During summer the young pigs should have the run of a grass lot, and should have a supply of fresh water within reach. I believe that for a litter farrowed early in the spring, the most profitable way is to keep them in a thrifty condition all summer, and in the early fall begin preparing them for market. If they have been treated in the manner I have described, they can be disposed of with greatest profit when eight or ten months old. You are then saved the expense of carrying them through the winter, and in the country this is a heavy item.

I have not yet touched on the diseases to which swine are subject. Indeed I do not know as it is necessary. It is an animal peculiarly free from disease. The great variety of food placed at the disposal of the Ontario farmer prevents the ravages of cholera and other scourges which carry off the almost exclusively corn-fed swine of the west.

The majority of losses in swine-breeding arise from a complete misunderstanding of his nature and wants. We should not forget that it requires as great a variety of food for its nourishment as any other domestic animal—that roots in winter and grass in summer should form part of its diet. We should not forget that it is an animal cleanly in its habits; that frequently cleaned pens and feeding-troughs and plenty of clean dry straw are necessary for the thrift and comfort of swine, and that for warm and comfortable quarters in winter and protection from the heat in summer, these will repay us as handsomely as any other domestic animal.

It is a fact that many a farmer, who will spend an hour or two daily in grooming and attending to the wants of his horses, and who never thinks of begrudging the time, will, when it comes to feeding his swine, pitch in a pail of swill to them as if it were done under protest, and scarcely turn to see if they are dead or alive. There is no animal for whom comfortable quarters can be more easily and cheaply provided, but it is a notorious fact, that while this is the case, there is no animal more completely neglected in this matter. The building need not be costly. It should possess a few essential points, and these are easily secured. All it requires is a light building, high enough to enable a man to stand upright in, and, above all things it should have a good, tight floor. A pen large enough to accommodate four or five pigs can be built for eight dollars. The pens on Woodale Farm, the property of N. H. Gentry, Sedalia, Mo., and one of the largest and most successful breeders on the continent, would not exceed this in cost. They are small structures, about twelve feet square, about eight feet high in front, and five feet high behind, with a door in front and a window hung in the centre.

One of the great sources of profit in swine-breeding is the high value of the manure; but it is a lamentable fact that most farmers absolutely waste it. I am sure that it would be much more to their interests to spend less money on artificial fertilizers, though I willingly acknowledge the value of the latter—and devote a little more time in attempting to secure and turn to account the valuable manure which annually goes to waste around the pig-pens.

I have thus briefly attempted to outline the system to be followed in order to secure the best results in swine-breeding. If I have succeeded in arousing fresh interest in this branch of stock-breeding or in adding to the interest or profit of this institute, I shall feel much gratified. I have always taken a deep interest in the live-stock interests of this province. I have

viewed with feelings of pride the steady improvement which is to be noticed, from year to year, at the stock exhibits of our great fairs. I have felt proud of the productions of my native land and look forward to the time when Ontario will stand without a peer as a stock-producing country, and when we will no longer be compelled to cross the ocean to secure animals to infuse superior blood into our flocks and herds.

Wentworth county may well feel proud of the part she has taken in this good work. You have in your midst men whose reputation in stock circles has deservedly become continental, and you have also here published a journal whose lofty tone, whose sincere devotion to your best interests, whose hearty support of every movement having in view the benefit of the farming community, whose inspiring words and cheerful encouragement in difficulties, should cause you to take pride in its existence—should rouse you to a newer and deeper interest in your occupation, and stimulate you to still further efforts in your own behalf.

FOR THE CANADIAN LIVE-STOCK AND FARM JOURNAL.

Mixed Husbandry with Cattle as a Specialty.

BY C. M. SIMMONS, IVAN, ONT.

Any industry that succeeds well does so only under the very best management. This rule will hold good when applied to any branch of business.

I may here ask, does the raising of cattle and the feeding of them for the butcher pay at present rates? I believe it can be made remunerative when thoroughly managed, with the results accruing therefrom properly applied to the farms on which the industry is carried on. The stock raised for this purpose requires to be well bred, and of that type known as the short-legged, broad, deep flanked cattle, with good crops or a good heart-girth; broad foreheads and full eyes. When you raise or buy cattle of that type, I maintain they can be fed for profit to the feeder. The farmers who follow a mixed husbandry and sell their cattle in the fall for grazing or feeding purposes at 3 cts. per lb. live weight make it pay them. They should then weigh 1,200 lbs., making \$36 at two years old, or if wintered so as to not lose in weight through winter, at 4 cts. per lb. they will bring \$48 when ready for grass on the first of May, which will pay farmers whose lands are not adapted to grazing, or who are using them for other industries, and wish to feed for spring markets, will get 5 cts. per lb. live weight. Therefore a steer or heifer weighing 1,200 lbs in the fall, when fed as they should be, will weigh 1,500 lbs. in the month of May, showing a value of \$75, which leaves \$39 to pay for feed consumed through the winter.

At the present prices of coarse grain, they can be fed for 20 cents per day, or about that, and we feed 184 days, cost, \$36.80, or say it costs every cent of the \$39 to feed through the winter. I maintain it pays when the important object is considered—the keeping up of the fertility of your farms.

With steers that are bought in the fall for grazing for the following summer, at the above figures, add the cost of wintering, \$14 each, being \$50 per head when turned out to grass. Sell them in August at 4½ cts. per lb., weight 1,500 lbs., making \$67.50, leaving \$17 for grazing.

Bear in mind that this calculation is based on good feeding, as I have allowed a sum sufficient to furnish good feed, independent of manure, which is so valuable for the land. We cannot expect cattle that lose 150 lbs. through the winter to come up to this standard.

Cattle that are prepared for a July market should be fed to gain at least 150 lbs. through the winter, and should get 4 or 6 lbs. of meal per day while on the grass, to make them fit for the European markets. This can be made profitable at 5 cts. per lb.

There is another method of preparing a lighter class of cattle for beef, which experience shows to be the most profitable, and the practical grazer keeps an eye to it. It is this: The man who grazes 100 head or less must have a number ready and off the pasture in August to make room for the last mentioned lighter and later cattle, as pastures dry at that season, and every practical feeder will lighten up not later than August.

I find that cattle weighing 900 to a 1,000 lbs., which cost \$28 per head in the fall, and wintered at a cost of \$10 or \$12, would sum up when turned out to

graze \$38 or \$40 each. These bring the most money, all things considered, as this class when well fitted are worth 4¼ cts. and will weigh 1,400 lbs. live weight in October; amount \$59.50, leaving about \$19.50 for grazing each steer.

We must not harbor the idea that natives or scrubs will pay, as one cannot buy them low enough to make them profitable when finished. Some who know my method of feeding object that I feed grain and meal. The figures that I have given for the winter cover all, and the meal fed to the early cattle on-grass pays in the extra quality of the droppings on the land. We can also graze a larger number on the same acreage, as I find 2¼ acres sufficient when cattle are fed 5 or 6 lbs. of meal per day, and we generally allow three acres per head to those that are not fed on meal. This I consider profitable, and can be carried out by the practical feeders and graziers. This class of cattle after they have been managed as stated, can be shipped to Europe at a profit to the shipper. In order to build up and perfect this industry, that moves along hand to hand with the other great industries of our country, we need a more thorough knowledge of the breeding and feeding of cattle. If we but feed and manage our cattle intelligently we can compete in any of the markets of the world. I decidedly favor a mixed husbandry. The value of the manure from good feeding, when applied on the land, explains itself in our every day observations. The large increase of the yield per acre is seldom truly accounted for over the product of other lands. I ask, what are the results? Are we not bound to admit that there is a difference of at least 10 bushels per acre on all grain crops, and nearly half on root crops every year? And I may here add I consider it almost indispensable that we should raise roots for stock if we make cattle-raising a success.

It may not be amiss to mention what I consider the best pasturage or the grasses that give the best results. I find the natural grasses, better known as spear or blue grass and white clover, stand far ahead throughout all of the grazing sections of Ontario. In fact we cannot expect a constant supply for the whole season of any other. Consequently, it is not safe to depend on what is termed meadow land as pasture until it has been pastured for a number of years, and not then unless the natural grasses have taken the place of the timothy and clover. In fact, if our lands do not grow the natural grasses they will never be profitable grazing lands, and the older the pasture the greater will be the yield of beef, butter and cheese. Also the most productive pastures that I have taken account of are lands that were never ploughed, although in other sections the results may be different.

Without following a system of mixed husbandry I fail to see how we can sustain the fertility of our soils, and in all mixed farming, stock-keeping, in one or other of its forms, is always a leading factor.

The Style of Hog Wanted.

EDITOR CANADIAN LIVE-STOCK AND FARM JOURNAL.

SIR,—I noticed in a recent issue of your paper a letter from W. Davis & Co., Toronto, with reference to the style of hog that is required by the provision trade. The day has gone by when the heavy, fat hog of 250 to 300 lbs. was the favorite. That style of hog makes heavy, fat bacon (or barreled pork) and lard, which has to come into competition with the Board of Trade manipulated pork and lard of Chicago; also large hams, which have to sell at a much reduced price. The consuming public, not only in cities, but in the towns, and country districts, are becoming more and more fastidious, and the demand now is for lean bacon and small hams, so much so that it is almost impossible to sell anything else.

I give the preference to a hog that shows a preponderance of ham and bacon, small shoulders and small head, that has been brought to maturity in six or seven months, to weigh from 140 lbs. to 160 lbs., dressed.

If there are breeds of hogs that will make the desired quality of meat, the breeding of them should be encouraged by all the agricultural societies of the country, and information given to the farming community that that is the kind and quality of pigs that are wanted and are most saleable.

F. W. FRARMAN.

Hamilton, Ont.

"Since its commencement I notice the steady improvement in your paper, and the good work it is doing in advancing the stock interest in this country, and also all other branches of farming."—Edward Marshall, Clinton, Ont.

For the CANADIAN LIVE-STOCK AND FARM JOURNAL.
Stock Raising in Ontario.

BY W. J. STOVER, NORWICH, ONT.

(Continued from July)

It is a mistake to have calves coming too early. March and April calves are early enough and can be raised at a better profit than those coming at any other time. Although it is an object to have early calves that they may look well and do well in the fall, it is more than over-balanced in fitting the cow and feeding for a proper flow of milk so long before grass grows. Calves should never be allowed to run with the cow. Keep the calf in a box stall and let the cow in regularly three times a day for the first month, and twice a day after until weaned. They will not worry; they will learn to eat other food earlier; they will become quiet and more easily handled, and when time for weaning comes, the cow and calf will not worry themselves poor by bawling two or three weeks. If a cow is to be allowed to raise calves she should be milked the first year, for then she can be milked at any future time.

For the summer management we necessarily have the permanent pasture system prominent. I am satisfied, although we have not given it full and thorough test, that the best possible system of management for cows in summer would be soiling and permanent pasture together. My ideal system, and the plan which we are preparing to make thoroughly practical, is to keep the cattle in the stable after the hot weather and flies come on, and let them out at night only. A good permanent pasture in which to turn them at night will allow sufficient exercise, and they are contented to stay in and eat in the daytime, and will do much better there than in the hot sun, switching flies. In this way a larger number can be kept per acre; they do not waste flesh, and shrink in milk from fighting flies in the hot sun; and there is an item gained in the value of the manure. It often occurs in a wet season or when much new land is seeded, that the meadows and stubble fields yield a large amount of pasture which must necessarily be eaten off or the crop may be injured. In such instances the cattle may have the range of it for a part of the day, and less other food is then required. It can generally be estimated at the beginning of the season what the amount of such surplus food will probably be, and the number of cattle should be regulated to correspond, or a smaller amount of forage crop can be raised.

In conclusion—whatever the system of feeding and management may be, whether dairying, breeding, or beefing, never keep one animal more than can be kept well; always keep as many as can be kept right; and always aim to improve the breeding of the herd. Feed every pound of grain to some kind of stock, so long as it will return a price equal to its market value. Grain cannot be raised without straw, then make the best possible use of the straw, and let what cannot be fed go for bedding, and return it to the land, the land will then produce more grain which is all marketed and its value received indirectly. Remember that breeding for fancy prices is a specialty. Breed carefully and keep only the best stock. Calculate the profits derived from the direct value of the animal, but, if enterprise and superior breeding will make them bring fancy prices so much the more profitable to the breeder.

Of Which Sex is the Colt?

EDITOR CANADIAN LIVE-STOCK AND FARM JOURNAL.

SIR,—I have a colt, strong and smart, but I am in doubt as to the sex. By the diagram (enclosed), you will see the shape and where the sexual organ is placed. Perhaps it might interest others besides myself if you could give us some idea as to the cause of this strange freak of nature.

W. TREDWAY.

Highland Creek, Ont.

This letter and the diagram referred to were submitted to our veterinary editor, F. C. Grenside, Guelph, who comments upon it as follows:

"From what I can glean from the diagram submitted, I am of the opinion that the colt is one of the forms of hermaphrodites occasionally met with, that is, having both male and female organs present, but in a rudimentary form, and with the male organs more developed than the female. As stated, it is a freak of nature, the cause of which is still unfathomed."

Domestic and Industrial Exhibition at Toronto.

All entries in the live-stock department for the Dominion and Industrial exhibition, which is to be held at Toronto from the 5th to the 17th of September, have to be made before the 13th of August, now only about two weeks hence, and intending exhibitors should not lose sight of this fact. The Exhibition Association have made arrangements for the publication of an official catalogue, and entries not made at the proper time will not appear in this book, which would be a loss to the exhibitor. Besides this fact, double entrance fees will be charged on all entries made after the proper date.

The prizes offered at this exhibition are the largest that have ever been offered in this country, and apart from this the honor of winning a prize at the Toronto Exhibition will be well worth striving for. The Toronto City Council and the Exhibition Association are expending nearly \$40,000 this year in additional buildings and the improvement of the grounds, and the indications at present are that, notwithstanding this large expenditure for increased accommodation, there will be none too much when the exhibition opens. The entries already made, and the applications for space in all the buildings, is far greater than at a much later period in any previous year.

The large prizes offered for stock to be shown the first week should secure a full exhibit that week, as well as the second week, and in view of the fact that cheap railway rates and excursions have been granted by the various companies for the full term of the exhibition, the attendance of visitors throughout the entire term will undoubtedly be very large. Our readers cannot make a mistake in taking a few days' rest after their season's work, and visiting this great fair, which will probably be the largest that has ever been seen in Canada. All the new inventions and improvements in agricultural implements and machinery, as well as in all classes of manufactures, will be found at the exhibition.

The Directors, believing that the public appreciate the introduction of a little amusement with the exhibition, have arranged a large programme of special attractions, which they claim will be far ahead of any previous year, both in extent and quality. The grounds will be brilliantly illuminated each night with 200 electric arc lights, which is 70 more than the whole City of Toronto uses at the present time to light the streets. With all this light and the introduction of colored globes of various shades and Japanese lanterns, the grounds and buildings at night should represent a regular fairy land. Fire-work displays by Professor James Pain, of London, England, with immense scenic effects will be given on five nights of the exhibition.

H. Excellency the Governor-General and Lady Lansdowne have promised to open the exhibition on the 6th of September. A full programme of all the arrangements will be published in a few days, and our friends will then have an opportunity of judging for themselves on which day it will be best for them to go to Canada's Great Fair.

This truly wonderful exhibition, of which we all feel so proud, will undoubtedly eclipse all its predecessors, if the weather is favorable, which it usually is at that season, and as the season is very forward our farmers can well afford to take a holiday, particularly during the week of live-stock exhibit. The Secretary informs us that the entries are coming in in a most encouraging manner.

Special Prizes.

EDITOR CANADIAN LIVE-STOCK AND FARM JOURNAL.

SIR,—As the agricultural fair season is drawing nigh, and though the prize lists are already sent forth for this year, yet I wish to have a short say in support of Mr. Jackson's view regarding special class prizes, as set forth in his admirable paper on "Sheep Husbandry," given in your last JOURNAL. In other departments the producers or their duly authorized agents must be the exhibitors, while usually all the premiums for live stock are offered to the owners, regardless of who bred them. Would it not be more just and encouraging to breeders that at least the special prizes would be offered for animals bred by the exhibitor? Why should skill be the standard in other lines and only ownership in live stock? Just think of an imported carriage or lot of cheese being exhibited by a Canadian owner. We find an instance of this view being recognized in that the Board of the Agri-

cultural and Arts Association last year offered the Prince of Wales prize for a herd of Durhams owned and bred by exhibitor. The mystery is, why have they not offered the same prize this year for animals bred by exhibitor when they have given it to one of the sheep classes. While most heartily agreeing with Mr. Jackson in the matter of special class premiums, I cannot understand how he claims for the Southdown grade, better results than that given by Shrop grades at the Experimental Farm, Guelph, during a period of five years.

Having but two of that farm's reports just now at hand, I see in one of them—that of 1882—that twelve grade weathers were shown at the Industrial, Toronto, and at the Provincial Exhibition, Kingston, and gave a profit of \$8.40, while the Southdown grade gave \$8.15. Again, in the report of 1885, I find that when grade wether lambs, in competition, were fattened from Nov. 21st, 1884, to March 20th, 1885, the Shropshire grades again headed the list, having gained in weight 43 pounds, at a cost of \$4.55, while the Southdown grades gained 37½ pounds, at a cost of \$4.52. JOHN CAMPBELL, JR.

Woodville, July 21st, 1887.

Farming in Manitoba.

EDITOR CANADIAN LIVE-STOCK AND FARM JOURNAL.

SIR,—As I do not see much information with regard to affairs in Manitoba I will send a few remarks, which you are at liberty to publish if you think fit.

I came to Manitoba in the spring of 1884, and took up land at once on the east bank of the Assiniboine river. The land is moderately light, averaging from 4 to 8 inches of vegetable soil (humus) with clay and gravel subsoils. I tried the raising of oats and peas the first year by sowing on the sod and ploughing (breaking) under. With the oats it was quite a failure, but a little better with the peas, though not a crop. The reason, I believe, was chiefly want of moisture. A hard frost occurred on the 30th June and again on the 22d August, cutting off all potatoes on both occasions, thus spoiling the yield.

In 1885 grain did well till near harvest, when nearly all was badly frozen. Frosts occurred on the 12th and 17th of August, the latter cutting down all potatoes before they were fully ripe. Peas and garden produce generally received a severe check on the 27th of May. The want of rain was much felt in the early summer.

In 1886 crops promised well in the spring, but as summer advanced the want of rain was felt, especially in the light lands. The summer rains failed us, and drouth was the order of the day, wells and sloughs drying up, and the river itself becoming but a small stream. Root crops were a failure on the whole; though the quality of the potatoes was splendid, the crop was light. Wheat was good as to quality, very hard, but in some cases slightly shrivelled (want of moisture). Crops light to heavy according to land; in the very light lands almost a failure. Oats I consider on the whole a light crop in this neighborhood; hay fairly heavy, in fine condition.

Cattle thrive well on the native grasses; only in spring occasionally we have to throw away a milking on account of the flavor of onions. This occurs principally when the cows seek food in the gullies. The class of cattle is pretty good, grades (Durham) being plentiful, though of course the scrub is still to be met with. Sheep are doing well—several flocks in this neighborhood, the spear grass not proving the bug-bear it was thought it would.

What we want now is a good sort of wheat other than red fye, a larger yield, and a fresh importation of oats. Potatoes of various kinds are undergoing trial. I have four kinds—Early May Flower, Early Rose, Telephone and Late Rose. I prefer the May Flower for eating purposes and the Early Rose as an all round potato. This ground seems especially adapted to the growth of the potato. The climate is very healthy, and though so cold at times, I have never yet been obliged to remain in the house entirely any one day, though the thermometer has registered 43 degrees below zero.

GEO. A. DAVENPORT.

Binscarth, Man.

"I have much pleasure in getting your excellent paper regularly."—Wm. Duthie, Collyme, Tarves, Aberdeenshire, Scotland.

"Am very well pleased with the JOURNAL and hope it may continue to prosper."—Jos. Pearce, Tyrconnell.

Purchasing Stock for the United States.

EDITOR CANADIAN LIVE-STOCK AND FARM JOURNAL.

SIR,—I would like if you would let us know in the JOURNAL whether persons desiring to purchase a few head of different kinds of stock for breeding purposes of your people, have to visit Canada in person. Please give all the information in reference to the subject that is necessary.

J. B. RICH.

Colliersville, Otsego Co., N. Y.

While it is usually more satisfactory for the purchaser to be present, it is not absolutely necessary that he visit this country in person in order to secure a supply of good stock. We have men here true as steel, and thoroughly reliable, who may be secured for this purpose, and especially in the less busy seasons. More exact information regarding their whereabouts can be got on application to this office.

A Chatty Letter from the Ottawa.

EDITOR CANADIAN LIVE-STOCK AND FARM JOURNAL.

SIR,—Some people write what, for want of a subject, they call a chatty letter. I don't know why I should not "go and do likewise," for this production may pass muster and fill in a space that might otherwise be filled; booming scrubs, and these, like thistles and white daisies, need no booming, but they seem to grow spontaneously, like other bad weeds, and whether you will or no, stare you in the face, obstruct your path and lighten your pocket.

Let me worm myself into your good favor by saying a kindly thing of yourself. You have made the JOURNAL a wonderful success. I assume that, like myself, you have not been trained up to journalism, but struck, like Kennedy, the Scottish vocalist, your proper vocation after you had served your apprenticeship to something else. Dr. Johnston is wrong and lived before the age of phrenology, when he says that man has no *bumps* fitting him better for one vocation than another. But I suppose the conceited old prig fancied that he could have succeeded at anything. How would he have stood alongside of that Canadian-Dutchman, Henry Groff, feeding steers? Well, this brings me to my conclusion, that most any one has his "forte." Poor Artemus Ward said he discovered his "forte" was not playing "horse," towing boats on the Erie canal, but your forte is without doubt writing an agricultural paper, and the proof of that is the success of the JOURNAL, and the very clear, cogent way in which you reason out a matter. You see that is it, and people see too, after you show them how you see.

Your letter on commercial union has gone the rounds of the Ontario press, and presented its advantages in a very clear light. But I am as sure that you are a Scotchman as the Scotch disputants were of Milton's being a Scotchman, though a doubt arose with one of them, as Shakespeare, the other assured him, was too, or, at least had intellect enough to be one. Now, as a Scotchman, have you no misgivings about this commercial union cheating our hearts and leading us, or it, to Uncle Sam instead of trustingly leaning in with great-grandmamma Victoria? I confess I have, and for that reason alone I am no disciple of yours on that subject, though there is no saying how a few open-handed Yankees coming around wanting to buy some Ayrshire bull calves that I cannot induce my Canadian neighbors to appropriate, at their true value, would remove my prejudices and mollify my stern, unbending loyalty to the old flag. I suppose that, or something like that, is the sure, safe corner stone of most people's likes and dislikes. Though some people are unreasonable enough to be surprised that the proscribed, persecuted Irish Catholic does not, as a general thing, bubble over in sentimental affection toward the hand that smote him, surely such people might have learned, from the exceptional and almost world wide importance that has been given to *poor dog Tray*, that such unreasonable attachments are very rare. But *fini donc*. If you come to Ottawa in September, ask for the—greatest?—no, but most devoted friend you have, and you will be shewn

WICQUEFUT.
Beachburg, June 28, 1887.

P. S.—I tear open this letter to say I have no Ayrshire bull calves for sale at present, lest some one should suspect I was seeking a free advertisement.

Reply to Mr. Dryden.

(This letter was held over thus far from lack of space.)

EDITOR CANADIAN LIVE-STOCK AND FARM JOURNAL.

SIR,—Mr. Dryden in the April number of the JOURNAL states that a member asked some questions as to the reasons for fixing 1865 as the date after which imp. cows must be registered in England. Such was not the question. The question was, "How do you justify the acceptance of pedigrees of animals imported previous to 1865 without a record, and exclude animals having a record of five or six crosses previous to that time?"

Mr. Dryden states that "among the earlier importations before a herd book was established in Canada, many animals were brought over because of their individual merit and intrinsic value as Shorthorns, but as the pedigrees were not needed for registration here it was in many cases overlooked at the time of purchase." The purchasers of those animals apparently became suddenly aware of the advantage of a record (according to Mr. Dryden), on reaching Canada, although such record was not needed for registration until "years afterwards."

If then, they were careful to preserve the records in Canada, although there was no herd book, is it not probable that if they were anything but grades and had a record in England, the purchasers would have secured it? It is very probable the individual merit was of a high order—higher than a great many imported pedigree animals—but is that any guarantee of their purity as Shorthorns? Are not first and second crosses often superior to the very longest pedigree animals? Are not hundreds of D. H. B. animals the "veriest rubbish," and are not many more of them far below the Shorthorn animal standard?

If, as Mr. Dryden claims, the mere fact of their registration gives them value, and if at the hammer they are knocked down at from \$25 to \$60, according to age, what then is their true value? Where is the justice in building a high wall about a class of animals containing a very considerable percentage of such as these? Is it likely that the animal standard (the true standard) will be raised by such a process? I admit that there are inferior Canadian Shorthorns in similar proportion to those recorded in the D. H. B. There are also superior animals, both from an animal and a pedigree standpoint. Where, then, is the justice, and I may add benefit, to our common country in including the one and excluding the other?

Respectfully yours,

R. J. PHIN.

Moosomin, N. W. T.

Prof. Robertson's Criticism of "Scientific Dairy Practice."

EDITOR CANADIAN LIVE-STOCK AND FARM JOURNAL.

SIR,—On opening the July number of your ever welcome monthly I found a most agreeable surprise in that exceedingly appreciative though critical review by Prof. Robertson. It is to myself one of the most valuable of the many good reviews with which my humble pamphlet has been, I believe, exceptionally favored. You cannot wonder that I drink in with the deepest satisfaction every evidence that the little book is calculated to accomplish the work intended, the large importance of which was a source of great encouragement for many days when encouragement was sorely needed. I have had many such evidences, but not the least among them is the fact of having passed almost unscathed the sharp lance of criticism of Prof. Robertson, than whom, with all his personal geniality, there are very few who could do more effective probing.

Faithfully yours,

W. H. LYNCH.

Ottawa, July 9th, 1887.

A Strange Show-Yard Decision.

EDITOR CANADIAN LIVE-STOCK AND FARM JOURNAL.

SIR,—Please favor me with a few lines in your very useful journal in regard to judging at township shows, as some of our judges are getting sharp in this section of country. In February, 1884 I bought the noble Shorthorn two-year-old heifer Scottish Rose, from F. R. Shore & Bro., White Oak, county Middlesex. Having been served by the imp. Cruikshank bull Duke of Guelders, she lost her calf, unfortunately, before having gone her full time. I found great difficulty in getting her with calf again, having tried her repeatedly to five different pedigreed bulls. As a last hope I

had her served by a grade bull and she produced a fine bull calf in due time which weighed 100 lbs. when dropped. It ran with the dam all summer. At the Florence show I entered her as a Durham cow giving milk. She was shown against three other pedigreed cows. Two of the judges—I am strongly tempted to give their names—withheld the first prize from her because she suckled a grade calf. My cow is one of the finest and best cows either in Lambton or Kent county. She is by 3d Earl of Darlington and the dam Scottish Lass 3d, and since the time of the show has dropped a fine dark red bull calf, which I have since had registered; and yet those judges only gave me third prize and condemned my cow as a grade for three years. Mr. Wade, who has registered this calf, surely knows what he is doing, notwithstanding the overmuch wisdom of our judges here in the west. This decision, Mr. Editor, has done me a great deal of harm, and I am determined that such judges will never have a chance to give judgment on Scottish Rose again. I would like to have your opinion and that of others on the subject.

G. GOULD, SR.

Rutherford, Ont.

There need be no two opinions as to whether Scottish Rose is a pure bred or a grade. Once registered in the Dominion Shorthorn Herd Book, although she bred from grade bulls all her days, she herself would still be a pure bred.—ED.

A Difference of Opinion.

EDITOR CANADIAN LIVE-STOCK AND FARM JOURNAL.

SIR,—In your last issue appears an article headed "An Address from the President of the D. H. B. Association." Mr. Cook says that an association of the standing of the Toronto Industrial should permit unregistered and grade stock to enter the ring and compete with thoroughbreds is simply a disgrace and shame, and should meet with the condemnation of every honest stockman throughout the country." If the Industrial did permit grades to exhibit in thoroughbred classes the directors would be open to the strongest kind of censure, but they never have done so, and no doubt will never knowingly permit anything of the kind.

What the directors say is this: We will see that only pedigreed cattle are exhibited in thoroughbred classes, but we won't permit any section of breeders of any class to dictate to us in what herd book cattle shall be registered; and all sensible, fair-minded breeders will say that they are right.

I received a letter a little while ago from a prominent breeder and large exhibitor of Aberdeen-Angus cattle, in which he says in reference to the stand taken by the Industrial last year upon the protest of certain exhibitors of Holsteins, "If a check had not been put to that sort of thing none of us would be safe to show our stock, as for instance in the case of Hay & Paton, they had not a hoof in the American herd book, and the Canadian one had not yet appeared." Yet their grand herd, winners of more prizes than any other herd in Canada, because not recorded in the American herd book, would be pronounced by Mr. Cook, "grades."

Fancy, if you can, a few of the Clydesdale breeders of Canada telling the directors of the Industrial that only animals registered in the American stud book should be eligible for exhibition. It would be an impudent request, and would meet with a short and sharp answer. The Clydesdale men, however, are not such donkeys as to make such a request.

Mr. Cook says he and his associates will decline to patronize any exhibitions accepting any other standard than that of the Yankee herd book. The Industrial may as well close up at once—Cook, of Aultsville, won't patronize it, and Simon Shunk, of Vaughan, will stay at home and feed his pigs; Bol-lart, of Cassel, will go on a visit to his German friend, Dudley Miller, of Oswego; Williams, of Picton, will go over and see Cook's old partner, Lord of Sinclairville, New York, from whom he can get pointers on how to sell a "non-breeder." Poor Industrial, why have you courted your own destruction? Possibly it is not yet too late to avert it. Let Cook appoint a Yank expert as judge, and that will propitiate the nine Holstein breeders of Canada. All they want is your prize money. They had exhibited the cast-offs of American herds—anything was good enough for Canada—but that won't do any longer. They got wakened up last year when they saw for the

first time a first-prize bull imported from Holland. The craft was in danger, and a protest entered, although it was shown that the owner of the animals objected to had in his possession the certificate of registration in the Netherlands herd book of his bull and cows, and had breeders' certificates for all his other animals. In fact the mouth-piece of these men, a scaly breeder and importer from the State of New York, was obliged to admit that the owner of these cattle had everything that he or any other importer could bring away with him from Holland; and when asked, "Why, then, do you object?" his answer was, "We say that they should be registered in our herd book."

Now, Mr. Editor, one word as to the North American Holstein Breeders' Association. Would you, can you, believe it possible, that with all this cry about this association, there is not a single member of it in the entire Dominion of Canada? There is not to-day in this Dominion a man who can go to Holland and import an animal and record it in this association's herd book. The rule is this: "Only members of this association may register imported animals shipped from Europe after March 18, 1885." Another rule is, "No imported animal shall be accepted for registration until it has been passed by an inspector." Another rule requires a unanimous vote of the board of officers before an applicant for membership can be admitted as a member. Having passed that ordeal, he is called upon to pay \$100 admission fee, and there comes the rub. Simon Shunk, of Edgely, would not pay \$10, much less \$100, to become a member of the Church, let alone the Holstein Breeders' Association of North America, and Cook, of Aultsville, would rather chance it on a game of poker with his old partner, Lord, going snucks in the game, than fool it away on the N. A. H. F. A.

Now, sir, you will, I think, see these rules are intended to prevent Canadians from importing direct from Holland; they must get their cattle from Lord, Cook & Son. Suppose you are willing to pay a \$100 fee for the honor of becoming a member, you may then be told by the board of officers that you can't become one; you cannot then import from the home of the Holstein—Holland; but without becoming a member you can buy from Lord, Cook & Son, and you may buy grades from them recorded in the N. A. H. F. A. B., because the man who is dishonest enough to sell "a non-breeder" representing her to be all right, as Cook's old partner did, would not hesitate to register a grade as a thoroughbred. Fancy, if you can, the breeders and importers of Clydesdales, Aberdeen-Angus, Galloways, Jerseys, or any other stock, trying to strangle themselves as these so-called Holstein breeders of Canada are doing. They allowed themselves last year at the Industrial to be led by the nose by Lord, and now they are letting his old partner, Cook, euchre them. Mr. Cook and his friends can't kill the Industrial, and they can't run either it or the Provincial; so unless they are afraid to show their scrubs against first-class cattle let them exhibit and take a good honest beating, like men.

JOHN LEYS.

Toronto, July 22, 1887.

Ayrshire Revision.

EDITOR CANADIAN LIVE-STOCK AND FARM JOURNAL.

SIR,—As the revision of the Ayrshire herd books is going on at the present time you will doubtless like to get the opinion of the breeders regarding it. I think the scoring out that is being done is in some respects unjust, as there was no herd book in Scotland until June 27th, 1877. The Ayrshires in Scotland have been crossed with West Highland cattle, Durham and Teeswater cattle from England, Dutch cattle from Holland, and also cattle from Alderney. They were mixed mostly by the use of bulls, and the time was from 1794 to 1858. After the herd book was started in Scotland, all imported into the United States had to be in the herd book in Scotland, and a certificate brought with them to certify that they had been so entered. But there were cattle imported into the United States that were not pure-bred Ayrshires, and a good many to Canada that were not pure.

John D. W. French, Andover, Mass., has written a pamphlet on Ayrshire cattle, price 50 cts., in which they are traced back pure for 110 years. If any scoring out is done, it should commence at the root.

JAS. SIMPSON.

Brockville, Ont.

Rambling.

On the 16th of June the farmers of Ellesmere and the adjoining townships met in holiday convention of the picnic order, to discuss the merits of the greatest question of the day, commercial union with the United States. The president of the East York Farmers' Institute, Mr. J. T. Brown, of Danforth, in the chair. They came out in holiday attire; fathers and mothers, young men and maidens, to the number of six to eight hundred. We could not help but notice the fine physique of this assembly, hopeful as the beautiful forest trees amid which the company assembled. A resolution was carried in favor of commercial union by an overwhelming majority. The supper in the drill-shed was creditable, and, through voluntary collections, put a nice little sum into the hands of the Institute. The Ellesmere band, composed of stalwart farmers' sons, under the leadership of Mr. Glendinning, added exceedingly to the enjoyment of the day.

Mr. Thomas Whiteside, Ellesmere, township of Scarboro, farms 100 acres of rich clay loam, and farms it so well that scarce an intruder in the shape of weed or thistle is found. He told us that he raises better crops now than he did forty years ago, without the use of any other fertilizers than those made on the farm. His crops were certainly looking well, and in every department.

The stock on the farm is very good. The first-prize general purpose filly, of Toronto Industrial and Markham exhibitions, is now set to breeding, a good use to make of so noble a beast. In company with Mr. John Glendinning, Ellesmere, Mr. T. M. Whiteside owns a two-year Clydesdale stallion, Self-esteem (5344), a beautiful bay and a beautiful horse, almost absolutely faultless so far as we could see in build. He was imported by R. Beith & Co., Bowmanville, in 1886. His breeder was James Durno, Jackstown, Rothienorman, sire Lord Erskine (1744) and dam, the famous Topsy (509) vol. iii., g. d. Jess of the Earn, the winner of eighteen first prizes in Scotland. Lord Erskine is well known as winner of first prize and silver cup at the May show held in Glasgow in 1882, while Topsy (509) is the winner of thirty prizes and ten cups and medals at leading Scotch shows. Self-Esteem (5344) has strength, action, temper and quality, all of the first order. Mr. Whiteside also breeds first-class Southdown sheep and Berkshire pigs.

WOODSTOCK

was reached on the 17th June, and on the 18th good work was done at the meeting assembled in the town hall, which had been convened very largely through the efforts of Mr. John Craig. Two institutes were formed, one for the north and one for the south riding, and a resolution passed in favor of commercial union. Mr. F. Malcolm, of Innerkip, presides over the former and Mr. G. H. Cook, of Ingersoll, over the latter.

THE GLEN,

the charming home of the Messrs. Green Bros., Innerkip, was wearing her most beautiful summer dress. The Thames came down from Innerkip as of yore, bringing freshness to the grasses, which in turn gave fatness to the herds of The Glen reeding in its valley. There is a quiet beauty about this home of leafy bowers that would wake to life a soul dead to the beauty of material things. Improvements are steadily going on here in the shape of underdraining, reclaiming forest land, stoning unbroken surfaces and the erection of wire and other fences of a very neat type.

The Shorthorn herd are in nice shape, carrying plenty of flesh, and nearly all sired by the Earl of

Mar (47815). The Earl looks as well as ever, losing none of his style and smoothness with the advance of age. It is much to be regretted that this firm had to relinquish their purchase of last year in the Shorthorn bull Scotland Yet, which has since taken first in a strong class at the Royal Irish Show, held in Dublin. The quarantine regulations of last summer prevented his importation after he had been bought for the Glen. The Hereford herd numbers 5 cows 2 heifers and the Provincial sweepstakes bull of 1885, Cronkill 8th (8461). This herd is in the market, as the Messrs. Green are desirous of concentrating their energies on one breed. A Hereford steer of a first cross spoke well of the value of Hereford sires in the production of shipping steers. Two fine one-year Shire colts were in the paddock. One a stallion, Dobbin, sire Regent (3281), dam Buckinghamshire Beauty, bred at Aylesbury, by Brown George (3505), is a promising beast, with a neat head and round, plump body and nice limbs. The other, Judy, a filly, not so perfect in the head as Dobbin, but quite as much so in body, is also by Regent (3281), and from the dam Lucy by Warrior (2689), the dam being a prize winner in Britain. Then there is a horse colt out of Buckinghamshire Beauty and the sire William the Conqueror (32), by William the Conqueror (2343), the sire of Prince William (3956), winner of the Elsenham 100 guinea challenge cup as the best animal in the London Shire Horse show, 1885, and of Staunton Hexo (2918), which won a similar prize at the same show, 1886.

GANANOQUE,

on the swift running Otonabee, is a busy, busy manufacturing town. We are indebted to Mr. Cowan, a manufacturer of carriage work, for the careful view we got of it during a quiet hour's drive. The agricultural grounds are on the riverward side of the town, where new and commodious buildings have been erected of late. Here the farmers held a mammoth picnic on June 21st, and speeches followed during the afternoon. Mr. Joshua Legge, the President of the South Leeds Institute, presided, and Mr. Freeman Britton, of the Gananogue Reporter, the active Secretary, did what he could to render the meeting the success which it proved to be. Many hundreds of the farmers turned this holiday to good account, as evidenced by the marked attention they gave to the discussion of material things relating to their own most vital interests.

MEAFORD,

a prettily lying little town, on the Georgian Bay, and at one terminus of the N. & N. W. Railway, was reached on June 24th. The way from Collingwood keeps near the shore of the bay, the picturesque hills that faced this valley keeping near at hand on the left. The crops all over this Northern region gave evidence of a great abundance of rain, while in our southerly counties they were being literally parched, the purple bloom of the pea withering without fruition and the pastures languishing. The farmers herethrough the medium of their Institute, Mr. James Cochrane, of Kilsyth, presiding, discussed commercial union and declared themselves favorably. A drive followed of 20 miles to Owen Sound, in charge of Mr. Cochrane. The country, till nightfall, though somewhat rugged, gave evidence of rapid improvement. An industrious population are putting the large stones where they ought to be, in the fences, and the wet places are being dried by suitable ditching. The romance of the drive—that part of it which led over the stony steeps of the mountain—was shrouded by the darkness, but we saw enough of its rugged wildness by the dim light

of the stars, to whet the appetite for more. We would fain make that drive again in the day, and with the same companion.

CAYUGA,

the county town of Haldimand, on the Grand River, was the scene of another farmers' picnic, on June 27th. It was held on the farm of Mr. John R. Martin, C. C. A., a little way to the north-east of the town. Mr. Martin owns 250 acres of land in this one plot, and several farms in other parts of the country. On this farm were feeding 75 head of pure Shorthorns, of different ages, containing amongst them some excellent representatives. There were some 20 cows and heifers of the Bates type, and some of them Mr. Martin considers excellent milkers. The herd is grounded on Mr. Stone's Moreton Lodge (Guelph) stock, and that of Bow Park. Mr. Martin has used bulls from the same herds of such strains as the Princess, Oxford, etc., and has now at the head of the herd Baron Constance 10th, a strong red Bates bull, bred by Mr. John Gibson, late of Denfield, Ont. This bull was sired by imp. Wild Eyes Le Grand, and out of the cow Constance 5th. Amongst the many good cows of the herd we mention Princess, an aged cow, the sister of which was exported to England and took a first prize at the great Smithfield of London.

There are also some 25 head of horses of various ages, but most of them are of the general purpose order, although some are heavy draughts of the Shire and Clyde crosses. Two service horses are kept, one a general purpose and the other a heavy horse of Clyde and Shire blood. The former, General Gordon, a handsome bay, was got by Mark Twain, Brazil, imp. from Kentucky, has also been in use in the stud.

Young stock of all ages are usually on hand at the Clearville Stock Farm.

The Brick Villa Homestead, a short distance from the Grand River, has some 30 acres of land attached, well kept surroundings, and a spacious garden well filled with vegetables and fruits, and is only a five minutes' walk from the Air Line station at Cayuga, and less than a mile from the C. S. station at Deans. The people at this picnic, over which Mr. Chas. Walker, Cayuga, the President of the Institute, presided, favored commercial union.

On July 1st, the twentieth anniversary of our fair Dominion, the surface of Dufferin Lake looked smooth and glassy as it mirrored the thousands who, tired and hot and dusty, stood upon its wooded shores. It might be a pretty land of real romance, if the owner of its surroundings but kept the fire brand from disfiguring its leafy bowers.

The forks of the Credit come together in a weird region; after coming down from the far away in deep ravines bordered by bold limestone cliffs, the two streams blend to part nevermore.

There was a brave gathering of farmers at Lindsay on the 25th July. They, too, by resolution declared in favor of trade with the United States. The meeting was called by the West Victoria Farmers' Institute, and the response of the farmers in this season of hay-cutting was truly cheering. The President, Mr. Donald Jackson, of Woodville, who presided, gave every opportunity for discussion, and when a vote was called for, but three hands were held up in opposition. From this fine looking country of the pea and alsike clover we had to hurry away too soon.

THE CEDARS.

The charming home of Mr. J. B. Freeman, M.P.P., looked wonderfully well on the morning of July 5th,

notwithstanding the exceeding severity of the drought in this region of sandy loam. Wheat, oats, peas, barley and corn all held their own bravely on this soil, so loose that you can work it with the toe, and which one would suppose could not resist the drought. Everything about the Cedars betokens the most careful management and thoroughly good farming. It is located 5 miles north-west of Simcoe, and is so called from the beauty of its cedar hedges.

THE KYERSON HOMESTEAD

was reached the same day, some two miles south-east from Vittoria, and not far from Port Ryerse, on Lake Erie. The old house is gone, a crop of wheat growing over the place where it stood, and like it the seven clerical sons of this wonderful family are gone, too; but their works remain and will follow adown the ages. An uncontrollable desire to see the spot where the homestead stood led us through a field of wheat, where a depression in the soil marks the memorable dwelling site, where we felt like taking of the hat as we stood upon it in tribute to the genius of the members of this gifted family. The highway in front has a long line of most memorable oaks and chestnuts, and the brook in the rear, with its crystal tide, runs on as when the Ryerson boys climbed in the chestnuts, now venerable with age, when these were in the first stages of productiveness.

LITTLEWOOD FARM,

the home of W. Dawson & Son, ½ mile west of Vittoria, that most venerable of the villages of a former half a century, contains 400 acres of fine lying land, and a fine herd of Shorthorns; but more about Littlewood Farm in a future issue.

Inquiries and Answers.

A CURE FOR MILK FEVER—ENQUIRY RE WINDMILLS.

EDITOR CANADIAN LIVE-STOCK AND FARM JOURNAL.

SIR,—I forward to you what I know to be a valuable and simple recipe in assisting to cure that great bugbear to all dairymen and farmers, milk fever in cows after calving. The principal point in the remedy for this disease is, to keep up the animal or natural heat of the cow, and so keep her on her legs. This difficulty overcome, she generally soon gets better with careful attention and loosening physic. Now I have never known my recipe fail in this, or to bring the animal to her feet again, even after she has taken the ground, if it is applied promptly. Take the raw hide from a newly killed or dead sheep and place it over the back and loins of the cow, raw side next her skin, wool out; over this throw a light rug, covering most part of her body and fasten with straps or rope. The good effect of this will soon be seen. Nothing I know of will raise as much heat in the body in so short a time as a sheepskin wrapper.

This is a cheap remedy, and generally at hand, and if not, any kind of green skin is preferable to none, such as a dog's or calf's skin.

I think the gentleman who writes to your useful JOURNAL, advising the plan of using heated flatirons, and whose zeal and perseverance in the appliance of the same is highly commendable, will find my recipe for the same object much easier to apply and equally effective. Care must be taken in removing the skin from the cow when recovering, so that she does not catch cold.

Will you or any of the readers of your JOURNAL kindly advise me as to the usefulness and adaptability of wind power on a farm for crushing, chaff cutting, etc. Is it easily practicable, easy to manage, and regulate in motion? If so, what is the most useful size of power for a farm, carrying, say 80 head of cattle and horses, besides sheep, through the winter? What would be the expense of it? Any information about wind power would greatly oblige

H. CRISP.

Elkhorn, Manitoba.

Windmills work admirably for any of the above purposes when there is sufficient wind. Oftentimes in the

summer season there is not sufficient wind for grinding purposes, so that to be forehanded supply should be kept ahead. It requires a good stiff breeze to chaff straw also, while a very slight breeze is sufficient for pumping. It would require a large mill to ensure grinding peas—a 16 ft. wheel, if of the Halliday pattern. For prices write to advertisers in the JOURNAL. There is no trouble whatever in starting or stopping them. Such may be done by a child.—ED.

Veterinary.

FOR THE CANADIAN LIVE-STOCK AND FARM JOURNAL.

Horse Shoeing.

BY F. C. GRENSIDE, V. S. GUELPH, ONT.

(Continued.)

In a former article it was remarked that the wall requires to be kept within normal dimensions. If it is too long it acts as a lever, exerting undue stress upon the ligaments and tendons that support the back part of the limb, and altering the natural relative positions of the bones of the extremities. The wall is tough and inelastic, but if it is unprotected by a shoe and subjected to attrition from coming in contact with hard ground, it may become broken or worn down too much until the sensitive structures are injured; or, as is often the case in farm horses, it may only be worn sufficiently, and the foot kept in a natural condition. When the hoof has the protection of a shoe, the wall continues to lengthen, being subjected to no wear, and consequently becomes unduly long, and the limb liable to the ill-effects resulting from this, as already described. In addition, at the quarters, where from growth of wall the hoof, at this situation, becomes broader, and projects over the outside of the shoe, causing this appendage to become sunken into the hoof and to exert undue pressure upon the sole in this position, thus resulting in bruising of the quick.

In hoofs in which the heels are very slanting the wall at this part has a tendency to grow inwards, and after a certain amount of growth has taken place, the surplus horn curls in underneath the heels, acting as a wedge, causing too much pressure, the result of which is bruising, or in other words, the production of corns. This tendency for the heels to curl in is further encouraged by the removal of the sole at the heel between the bar and the wall, for the sole in this part acts as a stay to keep these parts in their relative positions. Another point of importance in this connection is the fact, that if the toe is left too long there is an extra amount of weight thrown on the heels, which is apt to result in tenderness. In shortening the toe on removal of the shoes the commonest mistake made is that of not removing enough horn. The preparation of the hoof for the reception of the shoe simply consists in shortening the wall to its proper length, and making a smooth and even-bearing surface for the shoe to be fitted on.

If the hoof has not been allowed to grow out to an extraordinary length the best and safest instrument with which to shorten the wall is the rasp, for in addition to its removing somewhat quickly, it leaves a smooth and even surface to apply the shoe to, thus insuring an even distribution of pressure. One familiar with the natural bearing of a horse's limb can, as a rule, usually determine the amount of horn to remove, but perhaps the most definite guide for the shortening of the wall is to reduce it until the outer margin of the sole, at the quarters, but more particularly at the toe, is allowed to come in contact with the ground, and when the shoe is applied to press upon it.

Having accomplished this, the hoof may be considered ready for the shoe. Few shoeing-smiths, however, are satisfied with this preparation, and having shortened the wall to the extent that their fancies dictate, they then take their shoeing knives and thin down the sole. It has been already explained that the sole, after it attains a certain thickness, crumbles off of its own accord, thus regulating its proper depth, so that it should be left alone.

It will be found on examining the sole of a fresh hoof, that the inner part of it, or the newly secreted portions, is much moister and softer than the outer exposed layers, which have been subjected to the influence of the air and contact with the ground. Now, if the dry, outer part of the sole is removed, the soft freshly secreted portion becomes exposed, and dried up, thus producing contraction. A horse, on losing a shoe, suffers little inconvenience at first, even on rough ground, unless the sole has been mutilated, but if the sole has been thinned by the knife, lameness and tenderness are soon produced, especially if rough projections, or stones, are come in contact with. It is a very common custom to stop horse's feet with moist substances, with the object of keeping the soles soft, but the best means of attaining this end is to allow nothing to be removed from the sole, as the scales on the outer surface are nature's provision for this.

Fortunately it is becoming more generally known that cutting away of the frog or mutilating it in any way, with the object of reducing it in size, is an injury to a horse's foot. Not only is the frog designed by nature to bear weight and protect the sensitive structures of the foot, but it is intended by virtue of its elasticity to break the jar or concussion resulting from the planting of the foot. The more this structure comes in contact with the ground the tougher and more elastic it becomes, and consequently more efficient in the performance of its function. But, if it is reduced in size by the knife, or prevented from coming in contact with the ground, on account of the make of the shoe, it dries and shrivels up, and cannot perform its functions, but produces lateral shrinking of the foot, commonly referred to as contraction of the hoof, or hoof-bound. So it is quite evident that the frog should not be interfered with; and even the loose shreds are better left alone, as they tend to conserve the moisture. In addition to the mutilation of the sole and frog, most shoeing-smiths cut the horn at the angle of the heel, with the object, as they say, of admitting of expansion of the heels, and by this operation, which they term opening up of the heels, they remove an important staying portion of horn, the absence of which tends to encourage contraction rather than prevent it.

From this survey of facts it will be observed that what is in reality a very simple operation, is converted into a more lengthy and complicated one, by interfering with structures that are much better left alone, in order to conserve the health and strength of the foot. It is important in rasping the wall down to a proper length, that it be so done that every portion will bear its normal amount of pressure, and especially that the sides of each hoof should have a normal relationship as to length, otherwise lameness may be produced from undue pressure, which is most frequently noticeable in connection with the inner quarter, and often a source of the production of corns.

Sturdy in Sheep.

EDITOR CANADIAN LIVE-STOCK AND FARM JOURNAL.

DEAR SIR,—We have a shearing Shrop ewe, which has shown peculiar signs of dizziness for about two months. When walking in the pasture she holds her head very high, and steps high with her fore feet.

If you can give us a remedy through the columns of the JOURNAL you will oblige
W. & M. BELL.
Springford, Ont.

ANSWER BY I. C. GRENSIDE, V. S., GUELPH.

The symptoms given in this communication correspond exactly with what is called "Gid," "Sturdy," or "Turnsick" in sheep. This trouble is due to the presence in the brain of an affected animal of the larval form of a species of tapeworm.

The dog harbors some half a dozen species of this natural order of worms.

In considering diseases due to the presence of worms, it should first be known that these creatures have to conform to a necessary law of their existence, in order that they may become mature, and that is that the immature worm, or larva, has to enter the body of another animal, before it can become completely developed.

Dogs pass segments of a tape-worm (*Tenia Caninus*), which contain eggs that become spread about the pasture, and which sheep consume with the herbage. On reaching the stomach and intestines, the warmth and moisture of these organs hatch out the embryos, which nature provides with six hooks, thus enabling them to cling and work themselves through solid tissue, as the wall of the bowels and the coats of blood vessels, until they reach the blood current, by which they are carried along, through the circulation, until they reach the brain, for which substance they have a special liking and the ability to select it as their suitable habitat. Here they develop into the larval form, which is much like a bladder containing fluid, hence the name bladder worm is usually applied to them at this stage of their existence. This undeveloped worm, if consumed by a dog, develops into a number of tape-worms in his bowels, and if circumstances are favorable, the same course of reproduction goes on.

The life history of this species of worm has been the subject of much study and experimental research. What has been stated regarding it has been determined in this way.

The development of the embryo into the bladder worm gives rise to symptoms of brain disturbance. Usually there is only one present at once in the brain, but sometimes two or three. The symptoms vary according to the situation of the parasite in the nervous tissue, but there are symptoms common to varying positions of it.

An affected sheep separates itself from the rest of the flock, and manifests signs of nervousness, dulness and stupor. If left to itself it neglects to eat or drink, but if well cared for may gain flesh. If the bladder worm is situated on one side of the brain, the sheep turns to that side, moving in a circle, the limbs on the opposite side acting irregularly; but if it is situated in the centre, the sheep elevates his head and advances in a straight line until stopped by some obstacle. When located in the back part of the brain, or that portion of the organ that presides more particularly over the regulation of movements, it leads to stumbling, jerky action, and sometimes causes the animal to fall.

The animal shows worse symptoms at some times than at others.

This trouble mostly affects sheep under two years of age, and young cattle sometimes suffer.

TREATMENT.

Recoveries sometimes occur if proper measures are adopted, and even cases of spontaneous recovery are reported when a blow has caused rupture of the thinned bone over the cyst and bursting of the cyst and expulsion of its contents.

It is generally a wiser plan to butcher a sheep, and utilise its meat, unless its value is very small for this, when compared with that for breeding purposes.

If it is determined to try and prolong the life of a victim, the best plan is to puncture the cyst with a trepan and canula, of about an eighth of an inch in diameter. The fluid will escape through the canula, and after it is withdrawn a membrane will appear at the opening, which may be slowly drawn out with a pair of pincers. This is the parasitic cyst, and from its inner surface will be found projecting one to two hundred little elevations like pin-heads, each representing the head of a tape-worm, and being capable of development into the mature parasite if swallowed by a dog.

The wound should be covered by a pitch plaster, and the sheep kept in a quiet place for a time.

It is not always an easy matter to select the proper

situation to puncture, unless the bony plates covering the brain have become thinned, as they usually do after a time, immediately over the situation of the cyst. This guide being wanting, reliance as to the correct situation may be indicated by the symptoms. If the sheep turns to one side, open a little in front of the corresponding ear, and about half-an-inch from the median line of the skull. If the head is elevated and the walk straight forward without much fear or irregular movement, open at the same level but in the middle line.

If there is awkward, hesitating movement, much flurry and stumbling, open in the median line further back. When the bony plates are not thinned from pressure, a trephine may have to be used, or for a makeshift a gimlet may do.

Brain tumours that steadily grow, although they give rise to symptoms somewhat similar to "Gid," still they are not of the intermittent type that characterizes those of the latter disease.

A good deal can be done in the way of prevention, by ridding all dogs about the premises of tape-worms, and by burning the ejected worms. Starve a dog well and give him powdered arca nut in doses of two grains for every pound of his weight. The powder may be mixed with milk and poured down.

Burn the heads of affected sheep, as soon as they die or are killed.

Cure for Disabled Mare.

EDITOR CANADIAN LIVE-STOCK AND FARM JOURNAL.

SIR,—We have a valuable road mare that got a kick on the point of the hock about two months ago; it is a good deal enlarged and appears to be stiff, as it makes her knuckle, and she is quite lame. She is nursing a colt at present. Can there be anything done for her?
McB. & Co.

Craighurst, Ont.

ANSWER BY F. C. GRENSIDE, V. S., GUELPH, ONT.

Apply a liniment composed of two drachms of biniodide of mercury, two drachms of Iodide of potash, and sixteen ounces of water. Rub about half a teaspoonful well into the enlargement once a day until the skin becomes sore, then withhold for a few days, until the soreness disappears, when you can reapply as before.

Rheumatic Ox.

EDITOR CANADIAN LIVE-STOCK AND FARM JOURNAL.

SIR,—I have an ox that for some time has been very stiff in the hind knee joints—apparently rheumatism. My stable last year was very damp. Whenever opportunity offers he lies down, in or out of harness. While feeding he keeps shifting his legs as if they ached. Lately two large lumps as big as one's fist have made their appearance on the inside of each hind knee, filled with liquid or mucus, as they are moderately soft to the touch. He can work, but sweats more easily than he should, and is stiffer when first starting than afterwards. Any information as to treatment through your valuable JOURNAL will oblige
G. A. D.

"Mabledon" Binscarth, Man.

ANSWER BY F. C. GRENSIDE, V. S., GUELPH.

It would seem from your description that the ox is suffering from a disease of the nature of bog spavin in the horse. It is possible that it may be of rheumatic origin, but is more likely to be the result of inflammatory action brought about by hard work. In order that any good may result from treatment, it will be necessary to give an extended period of complete rest. Then an application of a blister composed of two drachms each of powdered cantharides, and biniodide of mercury, mixed thoroughly with two ounces of lard, to each enlargement, and the skin surrounding for a distance of two inches, the hair being previously clipped short from the parts. Allow the blister to remain on for forty-eight hours, then wash it off with warm water. Gentle use of the firing iron before blistering would be likely to render the treatment more effectual.

THE readers of the JOURNAL, when writing concerning live-stock, implements, etc., advertised in its columns, will oblige us very much by mentioning that they saw the same advertisement in the CANADIAN LIVE-STOCK AND FARM JOURNAL.

The Farm.

THE increase in the growth of weeds in Canada is becoming positively alarming. At least it should alarm the agricultural part of our population. Whole stretches of fertile country are covered with wild mustard, particularly along the shores of the St. Lawrence. In other places couch grass is not only fighting for an existence, but latterly beating off the husbandman. In other sections Canada thistles are gaining rather than losing ground, whole fields being so possessed of them that there is no hope of securing a crop without first going through the expensive operation of summer-fallowing, comprising a good many ploughings in the busy portion of the year. Unless our farmers are sharply alive to their own best interests in this matter, it will not be long till full one half the labor of the farm will be expended in the extirpation of weeds. The three greatest known antidotes to the eradication of weeds in every country are *watchfulness*, *applied energy* and *perseverance*. Thus triply armed any living farmer in Canada can ultimately conquer in this contest; without these weapons the most favorably situated must fail. There can be no discharge in this war until victory is inscribed on the banner of the tiller of the soil. One season's napping will give the enemy an advantage that will require years to counteract. Weeds can be conquered, and we call upon every farmer reader of the JOURNAL to carry on with those a war of extermination. Their growth is hard on the land, hard on the crops, hard on the muscles, hard on the pocket and hard on the temper. See Professor's Panton's able article in this department on the same subject.

FOR THE CANADIAN LIVE-STOCK AND FARM JOURNAL.

Fall Wheat, its Failures, Causes, and Remedy.

BY THOS. ELMES, PRINCETON, ONT.

Another season of anxiety and watchfulness is past for this important crop. Many have been the failures, and a still larger number partially so. It now becomes us to ask ourselves what have we been able to learn this past season, and to try and learn by experience to profit by our losses and failures in the past. This is the only true way to ultimate success, as we live in a world of change and consequently one of mistakes.

Fall wheat has been, and always will be, a very important product of the Ontario farm. Perhaps no other grain has been so abused as this; it is constantly being sown on land without any care in its preparation for the reception of the seed, when we could not reasonably expect an abundant return. No care is taken to drain the land or remove the surface water. Any variety is supposed to last year after year on the same land, even by men of intellect and thought, who would not think of close breeding of the various kinds of live stock. The same law holds good in vegetable life as in animal. Others run to the other extreme, and are continually changing from one variety to another without any knowledge of the adaptability of the kind to their soil or surroundings. These are the men who fall an easy prey to the seed dealers and grain swindlers who are constantly flooding our country.

As long as there are rascals on one side and simpletons on the other, swindling will continue to be practiced, and rascals will ride in their coaches and simpletons trudge along on foot. There is one simple remedy for all this—never tamper with individuals of unknown standing, especially when there is much involved in the engagement in which they wish to lead

us. Let us also form ourselves into mutual protection societies, such as are offered by our different agricultural organizations, that we may be of mutual assistance to each other. By this means we would avoid many of the traps into which so many a sower of late fallen, and thereby sustained heavy loss and many heartaches.

Perhaps one of the worst results of self-binding reapers is that we have fitted our fields for the reaper rather than for the wheat, by aiming at level cultivation. A vast amount of wheat has been lost this past season simply on this account. We must come back to ridging our land for wheat, and furrowing out so as to allow the surface water of winter and early spring to readily escape. Our manufacturers must aim to make their machines as little top-heavy as possible, and with large wheels. It must be apparent to all that we must ridge our land more than we have been doing in the past. We have all noticed where wheat fields have been badly winter-killed, the sides of the ridges of the land or next to the furrow are always good. Now the reason of this is simply, the plant receives air at these points, while the other portions are suffocated. If the land is ploughed in narrow, say from five to eight pace lands, according to the lay of the soil, and furrowed out wherever water is likely to run, all the grain would receive air, and failure by winter-killing would be avoided.

We must also have a proper selection of seed, and be sure we have a vigorous, hardy, good milling variety, and good plump seed if possible. When we deposit a grain in the soil we not only plant the germ, but we also deposit its infant food as well, on which it depends in its early stage for support. This explains why good plump grain will grow and look well for a time on a barren soil.

When writing to my brother farmers in the JOURNAL last April, on what varieties of spring grain to sow, I promised to report on my experiments in fall wheat. I will now proceed to do so; but first allow me to thank those in turn who sent me so many kind letters, thanking me for my advice then given, and from which they say they have had good results. The highest ambition of my life is, if possible, to make two grains grow where now there is only one, which I think is the true way to be truly loyal to our land and country.

This season I have tested 48 of the leading varieties of fall wheat, sown on the same soil, on the same day and receiving the same cultivation. I have two experimental plots—one on clay and one on sandy loam. It is useless for me to run over all the varieties tested; suffice it to say nearly half were a failure, as this season has been very trying to weak or tender wheats. I will simply mention a few of those which proved a success, and give a very short description of the best according to my test. At the head of the list I would place the Natural Cross. It is a very hardy variety, with large, well filled heads, white chaff, good stiff straw, bald grain, white, slightly inclined to amber, has all the good qualities of both white and amber wheat, and makes the very best of flour. This wheat originated thus: A Scotchman called by his neighbors "Honest John," living ten miles from my place, found six heads in his wheat field six years ago which attracted his attention by their beautiful appearance. These he preserved and sowed until last year, when he had a few hundred bushels which he sold to a few of the leading farmers within a circuit of 10 miles, in the counties of Waterloo, Brant and Oxford. I have watched this wheat carefully from its infancy, and thoroughly tested it, and pronounce it really No. 1. It can be purchased of Wm. Rennie, Toronto, or my-

self and others at a very reasonable price. The next on my list is Bonell. It is white, rather a hard grain, white chaff, bald, hardy; can be purchased of any of the leading seedsmen at reasonable price, as also may all the following varieties. Next, Deihl Mediterranean or Hybrid Mediterranean, a red, coarse wheat, but good for milling, bearded, and particularly adapted for heavy land. Manchester, red wheat, red chaff and very good, but inclined to rust on land subject to it, stands the winter well. Democrat, a good wheat, hardy, but rather too long sown in central Ontario, will soon run out. Starr Fall, a red wheat, red chaff, sap vessels rather exposed, would be subject to rust in a year or two. Valley, very good, bearded, hardy, good grower. Seneca or Clawson—its day is past for sure crop, its vital powers are exhausted, hence subject to rust. Soules—I entertained hopes that we could again introduce this valuable variety, but after repeated tests I find its days are past, never more to return.

I might mention many other middling good varieties; others, while good, hardy, vigorous growers, are too late in ripening, and are apt to rust badly, such as Martin's Amber, Nigger and Andrus Hybrid. Perhaps I should give the Red Lyon wheat a passing notice, as it may be particularly interesting to some. This wheat was among my failures, having been winter killed and rusted. I have visited several fields of it in this locality, and although it had all the advantages of soil and cultivation demanded by seed at \$15 per bushel, I failed to see anything to commend it. It has small heads, weak straw, coarse looking red grain, bearded, sap vessels small and exposed, consequently liable to disease; perhaps on the whole might stand the winter middling well, especially as it is gold clad.

I now close; let us drain, thoroughly cultivate, and enrich our land, allow all surface water to readily escape, select good varieties of well cleaned seed and we shall find wheat raising is not so much of a lottery as it has been in the past.

Agricultural College, Guelph; Bulletin

X. WEEDS.

BY J. HOYES PANTON, M. A., F. G. S., PROFESSOR OF NATURAL HISTORY AND GEOLOGY.

At a period in Canadian farming when much interchange of seed is taking place I have thought it expedient to say something about weeds, with special reference to two which came under my notice last season, and were reported as being new in the districts from which they were sent for identification.

Any plant out of place is really a weed, even if it does possess considerable beauty. Some plants are so frequently out of place that they have been always known as weeds, such as the thistle, chickweed, bindweed, etc.

In Ontario we have somewhere about 150 species of plants commonly known as weeds, and of these nearly 100 have been introduced from Europe. Every year adds a few more foreigners, and if farmers are not more vigilant in watching against these unpleasant invaders our Province will soon be overrun.

There is no doubt that weeds are on the increase in Ontario, both in number and species. This may be accounted for by the comparative indifference of many farmers to the growth of weeds on the roadside, as well as to the practice which now prevails of procuring a change of seed from other districts. The productive power of these pernicious plants will be better understood when the reader examines the results of observations on their seed-bearing capabilities.

In each case following the seeds are from a single plant: purslane, 500,000; burdock, 400,328; cockle, 3,200; mustard, 31,000; Canadian thistle, 42,000; ox-eye daisy, 9,600; chess, 3,500; mallow, 16,500. When we consider this productive power and the vitality some possess, together with the peculiar mode by which many are distributed, the surprise is that we are not more overrun than we are, especially when

unfortunately located near careless or indifferent farmers.

Weeds are largely distributed by the following means:

1. Along with grain obtained from other districts.
2. Animals carrying seeds attached to their bodies.
3. By the wind, where seeds are supplied with structures which enable them to be blown about.
4. Threshing machines carrying seeds from farm to farm.
5. Renting farm for a short time to men who are indifferent to the condition in which they leave the place, better or worse, and usually worse, than they found it.
6. Manure from city stables.

With such odds against him a farmer who desires to keep his fields clean must be vigilant, industrious and painstaking. However, if he observes the following hints he will succeed in destroying weeds.

1. Cultivate the land thoroughly.
2. Watch the roadsides and fence-corners.
3. Never allow the weeds to seed.
4. If possible, never allow weeds to have the benefit of sunlight: this can be effected by constant and thorough cultivation, and will soon result in a clean farm.
5. Secure the co-operation of fellow-farmers.

A knowledge of the nature of weeds becomes of importance in destroying them. Annuals live but a year, bear many seeds and when young are weak and tender, such as shepherd's purse, mustard, cockle, pennygrass, wild oats, chess, ragweed, chickweed, sow thistle.

Biennials continue two years and usually have a tap-root. Unless these plants are cut below the surface, cutting increases their vigor. Wild carrot, blueweed, burdock and mullein are biennial.

Simple perennials continue from year to year and will re-appear till the root is utterly destroyed, of which are the ox eye daisy, mallow, chicory, bind weed, sorrel and campion.

Creeping perennials are more or less jointed in the roots, each joint capable of growing if separated. Continued cultivation and smothering from light are necessary to kill these, among which are Canadian thistle, couch grass, toadflax, milkweed and sow thistle (perennial).

Sonchus arvensis (perennial sow thistle) has made its appearance in the neighborhood of Stratford, from which the specimen sent to the college came. It is considered a troublesome weed in the old country, and belongs to a class the representatives of which are very difficult to destroy on account of the creeping rootstock already referred to. Like all members of the order *Compositae* it produces many seeds. It bears a close resemblance to the common sow thistle, having a flower not unlike that of the dandelion, but the flower stalk, especially near the flower, is quite hairy. This weed being a perennial is likely to prove far more troublesome than the annual sow thistle and consequently should be kept under.

Thlaspi arvense (pennygrass) has appeared in the vicinity of Almonte. It belongs to the order *Cruciferae* and is closely allied to the mustard. It is well-known along the Red River as French-weed and in that country has become a nuisance, having in some cases almost completely overrun the fields. No doubt it has reached Ontario in seed wheat from Manitoba; it should be destroyed at once, before it gets a foothold. The following description may be of service to identify it: pods round, flat, with broad wings and a deep notch; leaves oblong, arrow shaped at the base, toothed, smooth; flowers white and very small; plant about a foot high. It derives its name, pennygrass, from the size and shape of its seed vessels, which resemble silver pennies. Though found to some extent in Quebec, it is rarely seen in Ontario. Its introduction should be looked upon with suspicion, for (bearing many seeds) it will soon spread if not kept under and prove here as troublesome a weed as it has in Manitoba.

Report of the Judges on Prize Farms for 1886.

(Continued from July)

THE SEED FARM.

One hour after the turning of the day found us scanning with a careful and delighted eye, the "Seed Farm" of Mr. Wm. Rennie, seedsman, of Toronto, who, though he has removed to the city of Toronto, as thousands of our farmers are aware throughout the

Dominion, to whom for many years he has supplied seeds, still cherishes a deep-rooted love for rural pursuits, and carries on his work on a far more scientific basis than most of the farmers of Canada.

The farm, lot 14, 2d concession, Markham Township, 15 miles from Toronto, and 1 1/4 miles east of Yonge street, was once the paternal estate, and was rented for many years by its present proprietor, who took it under his own supervision some five years ago, when it was, as long rented farms usually are in this country, a favorite home for many kinds of weeds. The fences were a melancholy sight, and the soil, naturally a rich clay-loam, just hard enough for working with comfort, and resting on a pretty hard sub-soil, was extracted of most of its natural fatness. In possession of the knowledge of these facts we viewed with amazement the transformation, surely almost without a parallel in so short a time.

It contains 120 acres, running half way to the rear of the concession, and forms a very gentle slope, inclining to the north-west, which is only disturbed by a few gentle swells, which gently disappear in the direction indicated. It contains but three fields, thus reducing the fencing to a minimum.

The ten acres of woods on the north-west corner of the farm has an open ditch cut along its northern side, which drains the forest, and in the channel of which the waters of a cooling spring flow all the year. The draining of the forest seems to have caused the ash timber to die, which has therefore been removed, which allows plenty of daylight to come in and sustain, with a good deal of vigor, the mixed grasses sown amidst the trees, and which have formed already a pretty heavy sward. The amount sown on the ten acres is 300 lbs., and embraces lucerne, red, alsike and white clover, orchard grass, red top, blue grass, wood meadow grass, meadow foxtail, perennial rye grass, hard fescue, sheep's fescue and meadow fescue, yellow oat grass and timothy. But we are by no means sure if this method of treating forest should be imitated by the average farmer, as we are of the opinion that treading amongst the roots by stock has a tendency to kill the trees. Ordinarily we would rather see it in a wilderness state, stock kept out altogether, and a strong growth of underwood, annually making up by its yearly advance for the mature wood removed to supply the needs of the farm.

The buildings could not have been more conveniently placed, nor the site which they occupy so well chosen in relation to its proximity to every part of the farm. Keeping in view an elevated position, and getting the building conveniently located is a wonderful labor-saving factor in the course of a lifetime, and even in the course of one year. The house is frame, neatly painted, has a pretty lawn in front surrounded by a snow white paling, which always has a chaste appearance around any lawn and through all the year. The barns occupy three sides of a square, open at the south. They are sufficiently capacious for the wants of the farm, and are fairly well adapted to the keeping of horses, but are not so well convenient for the keeping of cattle. The waggon and implement house are detached and have a cellar underneath, which is often used for storing potatoes, the other cellar being under a compartment of the main barn. A tread power is used for chaffing purposes and other work that may be required. The outbuildings are neatly painted with a preparation which, though not costly, looks very well. It was done with an outlay for material as follows: In 1883, 1 brl. boiled oil, \$26; 2 brls. black oil, \$12; 400 lbs. red mineral paint, \$10; 7 brls. coal tar for roofs, \$21. 1886, 200 brls. red mineral paint, \$5.50; 1 brl. boiled linseed oil, \$26; total \$100.50. The buildings thus painted are of the average size of farm buildings for 100 acres.

Trial grounds to the extent of two acres extend westward from the outbuildings, in which new varieties of grain, seeds, tuberous roots and flowers are tested. In this plot, which is under the care of one of Mr. Rennie's sons, prize roots and tubers have been growing for many years. This year field roots have been sent from it to the Indian and Colonial Exhibition, of enormous growth, which cannot fail to evoke the surprise of Englishmen as to the great capabilities of our soil. This trial ground, surrounded by a neatly white-washed paling and a Norway spruce hedge, pushing rapidly upward, was not taken into the estimate in considering the award, being outside the usual course of farming. Although in a sense it draws from the substance of the farm, both as regards occupancy and by demands on the manure pile, it also drinks all the liquid soakage from the barnyard, which is concen-

trated in this plot by means of a covered drain, and distributed from a tank to any desired part; yet something was allowed as an offset for the fruits and vegetables used on the farm.

The condition of the private roads merits great praise. The one leading to the steading was comfortably thrown up and gravelled, all done by the farm teams when not busily employed otherwise, the one going to the bush plot beautifully rounded, smooth as a pavement and sown with grasses, and so of that leading to the rear.

The fences were either board or straight rail and were very neat, those enclosing the drive to the bush being prettily whitewashed. They were lined with handsome soft maples along the front of the farm, and by the entrance drive.

There was a full supply of implements, each in its place in an open shed prepared for them, and protected by a movable fence. The implements were in a fine state of preservation, each being nicely cleaned when not in use, which tends very much to the prolongation of the term during which these shall last.

The five-course system of rotation is adopted at the "Seed Farm." Two years meadow, third year grain, fourth year roots and other heed crops, and the fifth year grain on which mixed grasses are sown. The cultivation of this farm is most thorough. When the hay fields are broken up the sod, covered with a heavy aftermath, is ploughed in the fall and sown in early spring with oats or peas. As soon as the grain is off in the fall the manure is drawn from the barnyard, about 15 loads per acre, and ploughed under lightly. In two or three weeks this is harrowed to germinate all seeds, and thus destroy them. Toward the end of October the field is ribbed with a double-mould board plough and cross furrows are run to carry off the surface water. When the land is dry the following spring it is ploughed and cultivated and then sown with artificial manure. Prepared night soil was used in the spring of 1886, 7 loads per acre, where the carrots and mangolds were grown. This was drawn from Toronto by the return teams in winter, and cost \$1 per load in the city. The drills are made with a double-mould board plough, and the mangold and carrot seed is sown with a horse drill as soon as these are made. About two weeks after sowing the space between the drills and bean-rows is sub-soiled. The scuffer is then kept going and the plants thinned early, the mangolds to 14 or 15 inches in the drill and the carrots half the distance. They are always harvested and placed in the cellar, the mangolds by the 25th October, and the carrots by 1st November. The excellence of this system of root culture is manifest in the prizes awarded to Mr. Rennie, repeatedly, by the East York Agricultural Society, for the best field of these.

The land is then ploughed for spring grain; barley or spring wheat is sown with mixed grasses. The grain is all drilled; 1 1/2 bushels per acre of barley and wheat, 2 bushels of oats, and 2 1/2 bushels of peas; 24 pounds of mixed grasses are sown to the acre. Thirty acres have been sown of the following variety: red clover, alsike, timothy, perennial rye grass, orchard grass, Indian rye grass, red top and Kentucky blue grass, and 15 acres of the same varieties, omitting orchard and rye grass and substituting meadow fescue. There was, then, this season 45 acres of meadow (mixed grasses), 15 acres spring wheat (red fern), 15 acres mensury barley (imported seed), 15 acres oats (Black Tartarian), 4 acres crown peas, 10 acres of woodland pasture (mixed grasses), 2 acres potatoes (East Ohio and Halton Seedling), 3 acres of beans, 1 acre white Belgian carrots, 2 acres mangolds (mammoth long red and intermediate), 5 acres new land in fallow and being stumped, and 3 acres trial grounds, orchard and building sites.

The seed farm is well underdrained, but not perfectly so. In one of the hay fields was a strip without under-drains, which could be detected in a moment, by the comparative lightness of the grass growing on it. In another barley plot one of the drains had clogged about grain sowing time and left an eyesore for a considerable radius, although in the autumn visit there was no trace of this. There is but one open drain on the cleared portion of the farm, and it is contemplated to close it by using tiles sufficiently large. The draining of this farm has worked wonders in the line of production, the soil being somewhat stiff and the sub-soil hard, in many places hard pan; before the tiles were laid the surface water was troublesome, affecting the crops adversely. Every foot of it will soon be under-drained, and all with tiles.

The staff of working horses is five head; one additional is kept for driving on the road. One span of these were imported registered Clyde mares, which, though kept for breeding, must also work. At the time of the second visit (31st of August), a contingent of some twelve head of imported Clydes had arrived, consisting of one-year and two-year-olds, both sexes, good individually and good collectively. The horses kept on this farm are in fine condition, even those which do the work, and when we consider the number of stirrings the soil gets in a season they have no small quantity of it to do. The only other stock kept on the place in the summer is two milch cows. In winter stockers are bought up and fed to consume the immense quantities of feed grown on the farm, and this has every year, with but one exception, made a profit on the investment over the manure.

The manure is left in the barnyard until after harvest, when it is applied to ground intended for roots, and is usually, therefore, handled but once.

Trees are planted (soft maple) along the front and the entrance drive, and are growing prettily, while in other parts what will soon be windbreaks of Norway spruce are growing up. The water supply is from wells, in addition to the bush rivulet.

The labor on the farm consists of two hired men in winter and four in summer.

The obstacles to cultivation are now entirely removed. During the summer a five acre plot was cleared of stumps, many of them elm and not decayed, by an American with some sort of blasting preparation. The outlay was but \$1.40 per stump. During the operation many of them were thrown into the air and came down in fragments, others of them were torn from their beds, leaving great dens in the earth, and the whole operation took but one and a-half days.

The crops on this farm were simply luxuriant, but we admired nothing in this line so much as the fine crops of mixed grasses grown for hay. In many places they covered the ground with a pleasant tangle to the depth of two feet, and the fineness of the grasses must render the hay very, very palatable. Orchard grass, however, we cannot but think, comes too early to harmonize with the other kinds for hay.

In cultivation the seed farm ranks high—amongst the highest of the competing farms. Mr. Rennie has unlimited faith in the use of the spud and hoe in the eradication of thistles, more especially after harvest, providing that they are not allowed to seed before harvest, and as one fact, the result of experience is worth a thousand unconfirmed theories, we chronicle it with no little pleasure that Mr. Rennie's method has banished these intruders from within his borders, although they grow thick around him on every side, and he has done it doubtless at a much less expense than the use of the plough would have entailed to produce the same result.

The "Seed Farm" is fast becoming famous amongst the farms of Canada. Its happy situation as regards the contour of its surface, its fences, each almost faultless of its kind, the great crops which its fattening soil produce, its stud of Clydesdale horses, the quiet beauty of the experimental plot and the value of the experiments carried on there and on the farm, bring visitors to it in the season with almost daily frequency, and yet we assigned it but a fourth place in the contest. The reasons for this were various. In the first place it was out of the ordinary line of farming. As a "seed farm" it is doubtless without a rival in Canada, and on this ground alone is deserving of a complimentary medal by itself at the hands of the Government.

The farm of Mr. Simpson Rennie was something ahead in the number of points, looking in the direction of perfection, and that of Mr. Donaldson was more of a robust all-round farm, in the variety and character of its products. In the former there was a something that spoke of a master's eagle eye in every corner and in every detail, and in the latter there was a completeness of equipment and product more adapted to the work of the every-day farmer. Pitted against Mr. Fothergill's farm, the latter had a marked advantage in the outbuildings, though inferior in cleanliness, and this it was doubtless that placed Mr. Fothergill ahead of Mr. Rennie, although your judges could not see eye to eye in this matter, the late lamented Mr. Parker, the referee by fixed appointment, giving Mr. Fothergill the prior place.

When we reflect that Mr. Rennie lives fifteen miles away from his farm, we think that what he has accomplished in this line is simply wonderful, and that Canada owes him a debt of gratitude for the great en-

terprise he has shown. His balance sheet, in which every detail was satisfactorily produced, was a remarkably good one, notwithstanding that his undertaking was of so recent a date.

(To be continued.)

For the CANADIAN LIVE-STOCK AND FARM JOURNAL.

Hints for August.

- Plant strawberries.
- Select good, perfectly clean seed wheat.
- Cut the oats before they get too ripe.
- Poor economy to be short of help at threshing time.
- Use plenty of disinfectants, around the sink-drains and privies. Gather a few barrels of road dust for use in the privies in winter.
- Beware of swindlers, patent-right men, etc. Dog them off the place.
- Be sure the stock have all the pure water they can drink.
- Keep the stock off the young clover if you want a crop next season.
- Sprinkle slaked lime over the floor and walls of the granary to destroy worms and absorb moisture.
- Run the harrow over stubble-lands that any foul seeds may germinate and be destroyed by the frosts of winter.
- Don't haul in the grain until it is perfectly dry; better to get a shower of rain in the field than to must in the barn.

GLANFORD.

The Dairy.

For the CANADIAN LIVE-STOCK AND FARM JOURNAL.

Hints on How to Make Prize Butter.

BY J. W. ROBERTSON MONTREAL.

The work of preparing for the fall exhibitions will be engaging the thoughts and hands of many farmers' households by the time your readers see this. Those intending to show will be having their cattle and horses "fitted up," which unfortunately too often means having their excellent qualities "broken down" by excessive fattening. Roots and fruit for display will be having befitting care and concern bestowed upon them.

Even the boys hardly in their teens will be doing their share of the bragging about the colt, the calf or the lamb, and already in the gladsome innocence of boyish greediness fingering a red ticket for each animal. The farmers' girls, not yet in their teens, will be interested in everything generally, with all the young girl's wonderful capacity of expectation; while the daughters not now in their teens will be—well I won't leave my ignorance open to caustic criticism by trying to guess what they'll be doing.

In anticipation of the same (the exhibition, not the criticism), I am modestly and with difficulty trying to begin an article giving those of them or their mothers, who are thinking of how nice it would be to take the first prize on butter at one of those exhibitions, some helpful information on how to do it. A young man's pen seems to get so thick pointed when he begins to write for the eyes of clever women.

1. See that the cows have an abundance of good, fresh feed. If grass be dry or scarce, supplement it with green fodder and grain, or chopped grain and bran. The quality of the feed determines to some extent the quality of the fat globules in the milk. These are what fine butter is mostly composed of. Green fodder is generally fed with better effect on the quality of the butter, after being milked for a day or two. This is especially the case with clover.

2. See that the cows have a liberal supply of pure,

cold water. As well might a cook expect to make good porridge out of musty oatmeal and stagnant water as to get pure, sweet-flavored, wholesome milk from musty feed and foul drink supplied to a cow.

3. See that the cows have access to salt every day. They know best when to help themselves.

4. If there be not sufficient shade in the pasture-field, the cows should be tied up in a darkened stable during the heat of the day.

5. Let the cows be saved from annoyance and worry. Any harsh treatment that excites a cow lessens the quantity and injures the quality of her yield.

6. Where practicable, let the cows be milked regularly as to time, and by the same person.

7. During the process that person should be good-natured. A good plan is to bake some extra pies when making prize butter.

8. Tin pails only, whose polished sides may reflect the smiling faces of the boys (see No. 7) should be used.

9. The udders should be well brushed and then rubbed with a damp towel before milking.

10. All milk should be carefully strained immediately after the milking is completed.

11. Thorough airing of the milk for a few minutes by dipping, pouring or stirring, will improve the flavor of the butter.

12. When shallow open pans are used for setting, it is most important that the surrounding air be pure. A damp, musty-smelling cellar is not a fit place for milk.

13. When deep setting pails are used, the water in the tank should be kept below or as near 45° as possible.

14. The skimming should not be delayed longer than 24 hours. By heating the skim-milk up to 95° and again setting it, a second skimming may be obtained, but such cream should not be mixed with that of the first skimming.

15. Cream should invariably be removed from the milk before the milk is sour.

16. The cream for each churning should be gathered into one vessel and kept cool and sweet.

17. The whole of the cream should be well stirred every time fresh cream is added.

18. Two days before the churning is to be done about a quart of cream for every four pails to be churned should be set apart and kept as warm as 70°.

19. Then one day before the churning that small quantity of cream, which then will be soured enough, which should be added to the whole of the cream to be churned, and well mixed therewith.

20. The cream should afterwards be kept at a temperature of 60° till churned.

21. During August and early September the best churning temperature is 58° or 59°.

22. The agitation of churning should be kept up till the butter comes into particles rather larger than clover seed.

23. The buttermilk should then be drawn off and pure water at 55° added in its place.

24. By churning thus for a few minutes the butter will be washed in the churn in its granular state.

25. The milky water may then be drawn and replaced by a weak brine at the same temperature—55°.

26. After a minute's churning the butter may be removed from the churn and pressed for salting.

27. Pure salt of medium fineness and with a bod velvety to the touch should be used.

28. Three-quarters of an ounce to the pound will be the right quantity.

29. The butter should be kept cool during the working, and also during the 12 hours while it may be left for the salt to thoroughly dissolve.

30. As soon as the salt is thoroughly dissolved the

butter may be worked the second time, to correct any streakiness which the first mixing of salt may have caused.

31. It should now be put up neatly and tastily, with as little crimping or beautifying as feminine fondness for these will permit.

32. It will then do its owner credit, and if it does not receive the first prize it will be prized and praised by its eaters.

33. If it does take the first prize, the writer would like to have some of it for his bread.

Could not the JOURNAL offer some premiums for the best tubs or basketfuls made according to these suggestions? I'll subscribe \$5 towards such a fund.

July 14, 1887.

[The editor of the JOURNAL captured his prize long ago.—ED.]

Over-Salting Butter.

Letter from the author of "Scientific Dairy Practice" to the "Canadian Live-Stock and Farm Journal."

EDITOR CANADIAN LIVE-STOCK AND FARM JOURNAL.

SIR, — I have much satisfaction in submitting to your readers the following opinion on salting butter, which Mr. E. B. Biggar has just communicated to me:

"The point urged in your pamphlet that Canadians over-salt their butter is very important. Canadians in London may notice that what Londoners look upon as the best butter tastes rather flat. This is because there is comparatively little salt in it. It was the common verdict that the very best samples of our butter at the Colonial Exhibition were not liked for this reason; and some complained to me that there was even a bitter twang to it, resulting probably from not only an excess of salt, but from salt of a poor quality, or at least having chemical elements which should not be present. The latter fact may account partially for the early rankness of some samples of our butter. The fact is that Canadians eat more salt in their food than Englishmen do, and if they wish to regain their hold on the English market they must make a radical change in the use of salt in their butter."

Mr. Biggar has for some years interested himself in our dairy problems. He is a close observer, and as publisher of the *Exhibition Journal* had exceptional opportunities of taking note of our claims to merit in the friendly competition at London last summer. It is a significant fact that he makes reference only to the question of salting. I commend his remarks to the careful consideration of your readers, believing that the best interests of our dairymen point to a reform in the direction of lighter and more careful salting, especially for the English market, but even for our own market.

W. H. LYNCH.

Danville, P.Q., July 5th, 1887.

Poultry.

FOR THE CANADIAN LIVE-STOCK AND FARM JOURNAL.

Poultry Prospects.

BY J. W. BARTLETT, LAMBETH, ONT.

Never, in our experience, was the outlook so favorable for poultry as at the present time. The fanciers generally are alive on the subject of new breeds, and as next session of the American Poultry Association witnesses the revision of the standard, there is little doubt that we will have added to the recognized list at least four new breeds, viz., White Plymouth Rock, White Wyandotte, and white and Black Minorcas. There are several other varieties seeking admission, but it is doubtful whether they will gain it or not. We feel disposed to doubt the advisability of admitting too quickly to the standard those breeds which are at the best but spurts from a recognized breed, unless there is some point of merit possessed by them which their progenitors are not possessed of. We are prepared at all times to welcome anything in the form of progress; that is, if it is in the direction of utility or

beauty, but in many cases there is nothing to recommend these new breeds, and they are pushed forward only to gather shekels for those who introduce them. In case of the white and black Minorcas, if they are all that is represented, or all even that we have reason to expect them to be, they will be a decided acquisition to the farmer or poulterer; but, on the other hand, in the White Wyandottes and Plymouth Rocks we see nothing to recommend further than the merits of the parents or standard breeds, from which they are simply spurts. But these are not all. There will be applications from the Golden Wyandotte (a similar bird to the present standard variety, being golden colored, when the standard is white); the Erminites, white, or white with small black specks throughout; the silken Plymouth Rock—that is, a Plymouth Rock with a plumage almost webless—and some others we know only in name. But except the white and black Minorcas, white Wyandottes and Plymouth Rocks, we will not likely see them admitted to the standard at the next meeting of the association, and we would expect the two latter to get the cold shoulder but for the fact that some of those who have the matter in hand are interested in them.

All these things, however, tend to keep the interest in poultry growing, and will work untold good to the poultry fraternity, and through them to farmers and the country generally.

FOR THE CANADIAN LIVE-STOCK AND FARM JOURNAL.

Poultry Keeping.

BY A. HARRINGTON, RUTHERVEN, ONT.

(Continued from July.)

We presume this difference in strains holds equally good with other breeds. Mr. Bartlett, of Lambeth, in his excellent current article, "Poultry on a Large Scale," gives his preference to the Wyandotte for a general purpose fowl, stating that it eats less, lays more, etc. Now we do not wish to enter into controversy with Mr. Bartlett, as he has urged his claims in a very moderate and gentlemanly manner, yet we think he has fallen into the common error of judging a breed from the specimens at hand, probably all of one strain, or nearly so. We have had conclusive evidence that this is not right, or rather, that the point we have taken concerning strains has been proven conclusively correct, viz., that the strain is everything.

A friend of ours this spring left with us some choice Wyandotte eggs, to hatch and raise for him. There was room for another egg in the nest, so we placed in one of ours. This egg and six of the Wyandottes hatched, and the brood of seven was placed in the edge of a clover field to await future developments. These birds were fed together and alike of course, and strong, handsome birds they were, but we are sorry to say the Wyandottes disappointed us. When our Plymouth Rock was fully feathered the Dots had barely started, and to this day they look ragged compared with the Rock. In size there is no difference, but their very backward feathering killed this strain (remember, we are speaking of strains) in our estimation. Very likely there are strains of Wyandottes that feather fast, mature early and lay well, and Mr. Bartlett may have one of them, but we think his judgment of breeds a little hasty, however well intended, though other writers have made the same mistake.

We know there are strains of Rocks (eggs \$5 a setting, too) that are not worth feeding.

We hope that in the above we have not hurt Mr. Bartlett's feelings, as our intention was merely to enlighten the poultry subject and to impress upon the reader that a good breed is necessary to success, but a good strain of that breed is of vital importance.

We omitted to state in the proper place that young chicks must have exercise and green food as well as good care and clean quarters. A brood of chicks kept in the narrow confines of a yard containing no more signs of vegetation than the Sahara Desert, will not be likely to thrive perceptibly, unless it is backward, smaller and beautifully less. Green food is a prime necessity; and whoever confines his chicks will do well to look after this important particular.

(To be continued.)

Poultry Keeping.

BY THE REV. W. RIGSBY, KINGSVILLE, ONT.

This paper, which was originally read at a meeting of the South Essex Farmers' Institute, held in Kingsville in May, has been specially revised for the JOURNAL:

There is one advantage about fowls when properly cared for, while you may keep them for pleasure. Unlike some other pets, they fully pay their way. If you have plenty of room and you want poultry for beauty, there are a good many very fine breeds to choose from, notably the Silver and Golden Poland, or silver-spangled Hamburg, and even the White Leghorn is a pretty bird when kept in a cleanly place.

As the question of profit is a very important one, I may here say that it is not impossible to have good-looking fowls, combining both meat and egg-production. My first experience in large fowls was with the light Brahma, and I still like them. Since that time the Asiatic breeds have wonderfully increased the size of poultry. A hen that weighed five pounds alive used to be thought quite heavy, but now you find the standard weight of even a pullet of the Plymouth Rock is 6½ lbs., and of the hens 8 lbs., while with the Brahmas 10 lbs. for hens and 8 lbs. for pullets is common. The same applies to turkeys. Take the bronze. A gobbler weighing less than 25 lbs. will be disqualified in a poultry show; a hen must weigh 16 lbs. Almost all our popular breeds are either Asiatic or have Asiatic blood in their composition. Brahmas (light and dark), Cochins (black, white, buff and partridge), Leghorns, Javas, Plymouth Rocks and Wyandottes, are known to have a large infusion of Asiatic blood in their make up. Like the Durham cattle, bred almost exclusively for beef, the milk yield has been lessened, so fowls noted for size are sometimes bred to the exclusion of egg-production, although there are excellent milkers amongst the Durhams, and excellent layers amongst the large breeds of fowls. I have had just as good layers of the Brahmas as of any other class of fowls.

Perhaps the most popular fowl at the present time—that is, a general purpose fowl—is the Plymouth Rock, as I must say the few we had the past winter oblige me to admit they are a grand fowl. The Wyandotte is a new claimant for public favor, and I believe it is likely to become a popular fowl, but is hardly established sufficiently to breed true to feather. In fact there is quite a divergence of opinion as to what the plumage should be. Its feathering more nearly resembles the silver-spangled Hamburg than any other variety, save that the arrangement of the colors is somewhat reversed, the Wyandottes having more white on a dark ground. If asked, which fowl would you recommend for the farmer? I would say, Plymouth Rock at present. First, because it is a vigorous fowl, therefore the young are easily reared; second, it has no feathers on its legs, consequently not so apt to get frozen toes through wet feet in winter; third, it is now so well distributed, it is easier to get fresh blood; and fourth, it is above the average in laying qualities.

There are other breeds or combinations of blood which give good records—a cross between light Brahma and Dorking (an English variety having five toes), makes a very satisfactory fowl. But in order to accomplish anything in cross-breeding you must keep two kinds of pure-bred fowls, and there are but few farmers who can do that satisfactorily.

The Dorkings are a splendid table fowl, but are difficult to raise. I prefer the white variety. There is no class of poultry more easily bred than the ordinary barn-yard fowl—"hen fowl" as I have heard them called.

To produce most satisfactory results, not more than ten hens should be allotted to any male bird, and if I

wanted to make any progress I would see that there was some correspondence between the birds thus mated. If possible have a couple of breeding pens and let the fowls run alternate days, but when kept for laying only, male birds are not needed.

The principal hindrances in raising fowls are neglect of proper shelter and provision for a change of food. They need variety as well as abundance. Again, they are often overfed, and with food that does not tend to egg-production. Corn, especially in the summer, is not good food for laying hens. If fed this once a day in winter it will answer a good purpose. A hen is like a cow in this respect—you cannot get from her what she has not received. Farther, as in the case of a working horse, it isn't to-day's feed of grain that gives the horse strength of muscle and endurance to labor: it is the weeks of proper care preceding the day of effort. So with the hen, you can't get eggs to-day from to-day's feed. She must have had time to elaborate the hidden store of nutriment supplied by a careful hand weeks before.

Next and equally important is a supply of pure water winter and summer. The almost universal neglect of cleanliness in the hen-house causes the fowls to become infected with lice. Nine-tenths of the chickens that die or are stunted early in life suffer from lice. Movable roosts and nests in the hen-house, whitewash, and sulphur, and Persian insect powder are the means to be employed to keep down these insect pests. The price of liberty in this as in everything else, is eternal vigilance.

The profits lost from lack of a proper care of the droppings are often overlooked. I cannot give much from personal knowledge on this subject, but am credibly informed that a barrel of this material is worth a ton of stable manure. Don't use ashes in the hen house. Dry dust or plaster absorbs instead of scattering the ammonia.

As this is the day of specialties, I believe that poultry-keeping must now take rank as one of the profitable employments for either men or women, and as one of the adjuncts of the farm, which in its aggregate results is productive of very great benefit to the community as a whole.

The Apiary.

In the issue of the *Canadian Bee Journal* of June 22d, the following question was discussed: Does apiculture at this time contain any special attractions—that is, from the dollars and cents point of view, when compared with farming, mart, or other avocations? The tenor of the answers was mainly in the negative, although Prof. A. J. Cook, of Lansing, Mich., gave this answer—"I think it fully 'up with general agriculture, and have facts to 'sustain the opinion." We conclude from the answers, that it is not wise now to embark in the business expecting to make a fortune at it, still there is nothing seriously in the way of farmers keeping a few hives, partly to furnish honey supplies and partly for recreation where the inclination leads in that direction.

FOR THE CANADIAN LIVE-STOCK AND FARM JOURNAL.

The Season.

BY R. F. HOLTERMANN, BRANTFORD, ONT.

Since writing last, the season for No. 1 honey has come and almost past. True, with showers followed by sunshine, thistle will sometimes yield quite a surplus, but present indications are not such, nor does thistle yield much of a surplus one year in five. It will be a matter of surprise to the average stockman that the bee-keeper can identify honey from clover, linden (basswood), thistle and other flowers. This can readily be explained. When clover is in blossom there are but few sources from which the honey may be gathered, and these few yield generally so limited a supply that they are no temptation to the bees alongside of white and alsike clover. Linden comes into blossom about the tenth of July—this year somewhat earlier, which is uncommon. Whilst it is in blossom, and

the atmosphere being favorable to the secretion of honey, bees cannot be induced to gather from other sources. Should these conditions not be favorable, bees will avail themselves of other sources for gathering honey, and the honey may be mixed somewhat. So with thistle, which latter is often blended in somewhat with the linden harvest. Buckwheat honey follows this, and can readily be detected. From the above, all can see by means of any device through which we know, that a certain honey has been gathered during the time a certain blossom yielded nectar in greatest profusion, and that this blossom was sufficiently plentiful to yield sufficient nectar to keep the bees occupied in gathering, we know that such honey is linden, clover, thistle or buckwheat honey, as the case may be. Clover is a clear, light honey, mild in flavor; generally preferred, but not always, as some object to its mildness. Linden is also a light honey, very distinct in flavor and aroma, thick in body, or, in other words, of a high specific gravity, and a honey noted as beneficial for consumptives and those having weak lungs. Thistle honey is medium in flavor and body, and generally mixed somewhat with other honey, therefore, has generally the distinctness of its flavor lost. Buckwheat is dark, of a strong flavor, and classed as an inferior honey; preferred by few in America, but liked more generally by the British.

If in extracting honey, a super is emptied or placed upon the hive at the commencement of clover harvest, and clover yields, we know it is clover honey. There may be an extracting where clover and linden will be mixed, but this will be followed, if the season be favorable for such, by an extracting of linden, and so on. Of course an experienced bee-keeper can distinguish each by the flavor, texture and color.

Our No. 1 clover season has almost passed. As stated in my last article, my bee-yard has been conducted to prevent increase and secure honey. The last month has been an extremely unfavorable one for the secretion of nectar, yet thus far an average yield of 78 lbs. per colony has been secured, with an increase of fifty per cent. True, this is not a high record, yet good when the crop throughout America is put at one-quarter or twenty to twenty five pounds. I expect some yield from buckwheat—last year it gave twenty-three pounds per colony—and to prepare for it have been extracting all the No. 1 honey from supers for the last two days, July 14th and 15th. This is done to prevent the darker and second-class honey from being stored in the same combs with the lighter, when all must be classed as second. Many bee-keepers lose part of the value of their crop by neglecting to do this.

August should again find us preparing for winter; in fact, such preparation should have been made earlier this season. During the honey flow every colony should be furnished with a vigorous laying queen. Any colony having a queen above three years of age should, unless the circumstance be a special one, have it replaced by a young queen. To many the thought will suggest itself, how shall we know this? In reply to this, it can only be known by keeping a careful record of each queen, and when the swarm issues, move such record with the queen. The easiest and best time to introduce a young queen is during the honey flow. If, therefore, there are any old queens, as described above, they should at once be replaced. There is no necessity for buying expensive queens, as good can often be purchased for less money; but be sure you are purchasing from a party who has no foul brood in his apiary. If an apiarist frankly owns he has foul brood in his yard, we must praise his worth, and can, when he is free from it, patronize him with

all confidence. If your bees gather little or no honey this season, do not neglect them. Still give the ventilation and shade and keep them comfortable as before; this will have the effect of decreasing the consumption, which is an important factor between the present time and when they are placed in winter quarters. Be extremely careful not to expose combs of honey or anything with the least particle of honey, as it will attract the bees to rob, and have very damaging and injurious effects upon the bees. It is impossible to see that bees have sufficient stores for winter in August, as there is too much brood in the hive to permit of storage room for honey. Then, too, the needs of the colony before winter vary, and we cannot estimate their need. Hence September is the time to provide colonies with sufficient stores.

P. S.—I have been through parts of Ontario since writing the above, and by the perplexities and mistakes of beginners, one often receives fresh thoughts. The question often asked is, how long shall I endeavor to keep queens laying and brood rearing in the hive? Opinions vary, but generally bee-keepers of long experience do not desire to have brood reared after September 1st. Generally bees will gather enough to keep them laying moderately until that time; if feeding is resorted to at all, and we doubt its advantage, it should be honey diluted, in very small quantities, and at night. The bee-keeper should bear in mind, the good condition of a colony depends not so much upon its numbers, but the healthy and vigorous condition of its occupants, and I doubt if a colony does not wear out more than it gains ground by this stimulative feeding and excitation.

Horticultural.

FOR THE CANADIAN LIVE-STOCK AND FARM JOURNAL.

Drouth and Fruit.

BY E. D. SMITH, WINONA.

It has been said, "Eternal vigilance is the price of good fruit." But there is something else wanted also, and that is water. It is true, good cultivation preserves the moisture in the soil to a very great extent, and on proper soil extra cultivation will even nullify the effect of the most prolonged drouth. But such soil is the exception, and not the rule by any means. My beau ideal of a suitable soil for small fruits is one that is springy and remains so all summer. Though underdraining will carry off surplus water, the water rising from below the drains will be carried to the surface by capillary attraction in sufficient abundance to supply the necessary moisture to insure a crop in the worst drouth, if there is good cultivation. What I mean by extra cultivation, is going through once every two or three days with the cultivator. Once a week I would call good cultivation. When we have a drouth like the one we have experienced this summer, lasting since the latter part of April, with only an occasional light shower since, those having suitable locations and giving extra cultivation make money faster than at any other time. The dry weather is a godsend to them, for it parches up the crop of the country at large, and causes high prices, while their crop is as good as at any time. Grapes stand the drouth best, as they have roots all through the subsoil to a great depth; but even grapes are now suffering except at the foot of the mountain or other places favored with constant supplies of water from below. What with short crop and low prices, strawberries did not pay here this year.

Another feature these dry seasons brings prominently to our notice is the need of the large varieties,

and indeed this is also brought to our serious attention by the difficulty of getting pickers. Marlboro, Cuthbert or Shaffer's Colossal will yield good-sized berries, even this year, whilst Turner, Highland Hardy, Brandywine, etc., are worth picking in many cases. In favorable years the former can be picked for one cent per quart, while the latter require two cents to be paid. The same remark applies to strawberries, blackcaps, blackberries, etc. If it had not been for Indian pickers we would not have been able to gather the fruit even in this year of short crops. When we get a good year, the Grand River country will need to be depopulated of its nimble-fingered daughters of the forest. Those who have had Indian pickers are loud in their praise, giving them credit for carefulness, tidiness, and wifal for quiet and orderly behaviour. They pick about as fast as white pickers. At such times as the present, growers long for some means of irrigating, and sigh for the cheap methods of Colorado and California, where in many places farmers can have all the water they wish once a week for the small sum of \$1 per acre per annum. But we have not the perennial springs from the snow-capped peaks to afford a constant supply, and it would require an enormous pond to properly irrigate even ten acres. I have poured a half barrel of water to a plum tree and it was not half sufficient to soak the ground; fifty gallons would be required to each tree for one soaking, or ten thousand gallons per acre.

I do not think irrigating can be made to pay here, where there is so much land, that with good care can be made to produce a full crop in the worst of years. The canning factories have become a great boon to fruit-growers. Enormous quantities of fruit, as well as tomatoes, sweet corn, peas, etc., are used by these factories. In fact, under existing circumstances, the Northwest as well as the large cities of the country are supplied from southern Ontario. This trade in canned goods has taken immense strides during the past few years. There are in Hamilton alone four large factories, none of them in operation ten years ago.

Between Dundas and Stoney Creek more land is occupied by tomatoes, corn, fruit, etc., than by grain or pasture, and each year additional acres are planted on almost every farm.

The prospect here at present is for good crops of fall fruit. We have the unusual occurrence of a splendid crop of peaches, adding to the general abundance. Had the growers retained their confidence in this fruit, and properly cared for their orchards, a much larger crop would have been the result, but successive failures chilled their hearts, and of late the orchards have gone to destruction fast, so that there are not enough of thrifty trees to furnish a crop like that of seven years ago, when the orchards were in their prime. The best orchards, being the youngest, are around Bartonville and Stoney Creek and in the Niagara district, whilst the once famous orchards of Grimsby look old and feeble. Dry springs are most favorable for the peach trees on the damp sand on which most of them are planted.

July 22d, 1887.

MAKE your spare apples into cider; it will make first rate vinegar. Be careful to exclude all rotten fruit and leaves—in fact, every other foul thing. Cider for cooking or jellies should be made of choice fruit and perfectly clean. All cider should be put into perfectly clean barrels. A dirty barrel, even, unfits cider for vinegar.

IN gathering grapes for market, be very careful to handle the bunches by the stem only. Pack with care and the fruit will open up bright and nice,

The Home.

For the CANADIAN LIVE-STOCK AND FARM JOURNAL.

Wild Flowers.

BY MRS. HANEY, AIASTORVILLE, ONT.

Lovely little flowers,
Innocent and bright.
Darling little flowers,
Children of the light.

Looking far above you,
With your quiet eyes,
Coaxing golden sun-beams
From the rosy skies.

Drinking up the dew-drops
Silently and still;
Smiling thro' the meadows,
Dipping in the rill.

Scattered thro' the wild wood,
Where the robin sings;
Where the maple blushes,
Where the ivy clings.

Peeping in the fountains
Far away and lone;
Jewelling the velvet
Of the mossy stone.

God our Father sent you
Smiling thro' the land,
Fashioned by His fingers,
Painted by His hand.

To proclaim His goodness,
Since He cares for you,
Darling little flowers,
We may trust Him, too.

For the CANADIAN LIVE-STOCK AND FARM JOURNAL.

Canada at the Colonial.

In a lunch room I asked the direction to Cheapside, a name familiar to me as one of the busy centres of London, but I was told that they did not know. This information gave me my first idea of the size of the city I was a stranger in, and that, with the lengthening shadows and gaslight, warned me that it was time for a "green" Canadian to seek a resting-place; so, hailing a tiny carriage—the most comfortable imaginable—just large enough to hold one—I soon found myself very comfortably lodged in Williamson's Hotel, Bow Lane, Cheapside: not a fashionable hotel by any means, but a cosy, home-like place, where the guests were very nicely entertained at moderate charges—moderate for London, I mean. The waiters had attained to a very high degree of politeness indeed—I was thanked if I gave my order for anything, and thanked equally if I declined, which proceeding I quite admired, but didn't thoroughly understand until I prepared to leave. It was just five minutes' walk from St. Paul's the magnificent, and about the same time, for a fee of a penny or "tuppence" on the underground railway would bring the visitor to the Tower, Westminster Abbey, St. Stephen's, and other places of absorbing interest. I went to the Tower on Saturday evening, and though open every day to the public for a small fee, the crowd was so great that policemen had to interfere. It was just like our cities when some very unusual event takes place. Of all the sights to be seen in the Tower of London, among which are the crown royal, jewels and plate, none interested me more than a coarse gray cloak, which looked as though a woman's hands had carded, spun and woven the wool, out of which it was made. It was the cloak which had enshrouded the immortal Wolfe when he died fighting for his country's glory on the Plains of Abraham. As it is for the Colonial we are bound, we cannot linger among the dead—nay, living—heroes of Westminster Abbey, nor sail down the Thames—we cannot pass

through the subway with the river rushing over us, nor carefully pick out steps through Billingsgate; we can, however, take time to walk past a door leading to the Parliamentary Halls of England, which we may not enter. That entrance is for the "exclusive use of peers, peers' elder sons and foreign ambassadors." No, we may not enter, neither may William Ewart Gladstone, the peerless politician, the grandest of old men, the statesman of his age. He is neither a peer nor the eldest son of a peer. And yet we boast of our nineteenth century enlightenment!

After hearing, seeing, and all but kneeling at Spurgeon's feet, on Sabbath morning, and worshipping in grand old St. Paul's in the evening, deeply impressed with its wealth of architecture and sculpture, the roll and peal of whose organ I can yet hear, I slept soundly, and started bright and early on Monday morning for the Colonial. Through Cheapside, Ludgate, the Strand, Picadilly, past Trafalgar Square and Charing Cross—the busiest corner in the universe, it seemed to me—up Regent street to South Kensington, and then "This way for the Colonial." I pay my shilling, the stiles are turned, I am in the Grand Hall. The first object of interest, to me at least, is a collection of large pictures, representing many of the colonial cities and towns, at different stages of their growth. The pictures are very instructive as showing the present size and importance of said cities and towns. With a passing glance at all save Canadian cities—for time is precious in London when every hour means money—I find Halifax, St. John, Quebec, Ottawa, London, Winnipeg and Victoria. I have crossed the Atlantic to learn that Montreal has 174,000 inhabitants, and that Toronto is a fine city with a population of 125,000. But how is this? Where is Hamilton—the city I was proud to say I had sailed from—the name which had been duly registered with mine in my journey up? There must be some mistake. I walk round the hall again—scan its walls up and down—there is nothing of Hamilton, "the ambitious city," on Burlington Bay—of Ontario cities second only to the "Queen" city of the west, in size and importance. I turn away disappointed, and a wicked little elfin whispers in my ear, "Hamilton—the unambitious city," but for the sake of my country I wouldn't repeat the words on the other side of the Atlantic.

Passing out of the hall I enter the Indian exhibit, varied beyond expression, gorgeous beyond description—no wonder "the wealth of the Indies" has become proverbial. New South Wales, Western Australia, Queensland, South Australia, Victoria, Fiji, and New Guinea vie with each other in the variety, display, and superiority of their respective exhibits. We step over to the Cape of Good Hope, West Africa and Natal, thence to Hong Kong, North Borneo, Straits Settlements, Islands of Africa, Cyprus, Malta, British Guinea, West Indies, and at last reach Canada. On the left of the door by which I entered was a representation of the ice palace in Montreal. At a window, above which was written "Johnstone's Fluid Beef as it is sold in Canada," two young women, dressed in tobogganing costume, dispense "Fluid Beef." The exhibition visitors were sweltering with the excessive heat, but the girls in felt-like clothing, tuques and all, still served steaming fluid beef. I overheard the following remark: "Just look at those Canadian girls—how strangely they dress out there, don't they?" I thought it absurd at first sight that Canada should be so misrepresented, and my impression was deepened by the remark. I don't believe either that they were genuine Canadian girls. I supposed them to be foreigners to Can-

ada, and, dressed in *August* in the tobogganing costume of our keen winter, were taken as representations of what we all are. The average Englishman has a sufficiently exaggerated idea of the coldness of our climate without strengthening erroneous ideas in that way. At the left of the ice-palace was a fine trophy of Canadian agricultural and garden produce, including samples of grains, grasses and fruits, surrounded by a collection of canned provisions. Close to the trophy was a large collection of Canadian drugs. To the right of the ice-palace was a great collection of manufactured goods—furniture, sewing-machines, cotton and woollen goods, and a large number of pianos and organs; also a collection of New Brunswick timbers very nicely arranged. The most striking object in the Canadian court was a magnificent trophy of wild animals, including stuffed specimens of the Polar bear, seal, walrus, moose and many other animals, in front of which was a dog-sledge with its harness. The Hudson Bay Company showed a handsome collection of furs and skins—there was a carriage wrap made of fifty dark sable skins. In cases adjoining the furs was a collection of curiosities and of articles of native Indian manufacture, and in the grounds were some Indian tents and a birch bark canoe. Agricultural implements, machinery in motion, stoves and hardware, tools and implements, carriages and harness, tanning materials, school furniture, models of boats, fishing tackle, etc., mineral collections, photographic collections, etc., testified to the manufacturing power, material resources and artistic development of our prosperous young country.

It was near the close of the day that I reached the educational court of Canada, quite too fatigued and ill to take anything more than a passing glance. I remember of noticing with pleasure busts of some of our prominent educationalists—the late Hon. E. Ryerson, the late Hon. Geo. Brown and the late Minister of Education, the Hon. Adam Crooks, are all I remember now. The following from the *London Times* will serve to show the impression on the English mind of our Ontario school system: "The educational exhibit of Canada deserves more detailed notice than we were able to accord them in our previous articles. In none of the courts is this department of colonial activity so well represented. As we have already said, the educational department of Ontario, under the care of Dr. May, is more fully represented than is the case with any of the other Provincial Governments. The Ontario educational system has been in working order for many years, and is very completely organized, from the kindergarten and public elementary schools up through the various training schools for teachers, classical schools, universities, technical schools, special schools, medical and other independent schools, and scientific and literary institutions. All these classes of institutions are well represented in the Ontario court. In the gallery there are abundant exhibits showing the working and results of the kindergarten and elementary schools. In the former the training seems well adapted to educate the eyes and the fingers of the little ones, as well as to draw out their budding minds. Specimens of art work, of maps and exercises of various kinds, from the elementary schools, would come out well if placed alongside any similar specimens of this country. The art schools especially seem to be doing excellent work; any one may see for himself by inspecting the many sketches and models which are exhibited in the court. The systems in vogue in the institutions for the deaf and dumb, and for the blind, seem particularly well adapted for their purpose, and the statistics of these institutions on the central

screens, as well as the specimens of work and illustrations of method and apparatus in the gallery, are well worth inspecting by those interested in this special department of education. Evidently very great care is bestowed on the training of teachers for the various classes of schools in Ontario. The examinations which they have to undergo are formidable and comprehensive, and for the higher grades quite as formidable as that of the London B. A., and far more varied. Science holds a prominent place in the educational system of Ontario, and the specimens of apparatus in all departments—physics, chemistry, biology—for testing it, are among the prominent exhibits in the court. The Ontario Agricultural College, established 1874, is largely represented among the exhibits, and from them, as well as from the published reports and results, it is evident that the institution affords an admirable training, which must have a highly beneficial influence on the agricultural development of the Dominion. These are only a few of the more evident features of this interesting court."

(To be Continued.)

Jottings.

Business Education.—Every young man or young woman desiring a situation as book-keeper, shorthand writer, or telegraph operator, should send to the St. Catharines Business College for a catalogue and become acquainted with the workings of that flourishing school.

Important Notice.—No subscriber's name is removed from our subscription list until all arrears are paid in full, as prescribed by law. Any readers in arrears will please forward the amount of their indebtedness to the STOCK JOURNAL Co., 48 John Street South, Hamilton, Ont.

Tiles.—We regret to learn that the Beaverton Brick & Tile Co. had their brick kiln burned just as they were getting things in order after a new engine and boiler had been put in. They have gone bravely to work, we understand, to repair the damage, and we are assured they have a good stock of tiles on hand.

Molasses for Calves.—We have received an enquiry from Westbourne, Man., asking if "blackstrap" is good for calves, and how much to feed. It is sometimes fed in fitting amounts for the show-ring, but is considered hurtful to the constitution. We would advise not to feed to stock intended for breeding purposes.

The Great Northern Exhibition.—This exhibition will be held at Collingwood, 17th to 30th September. The President of this exhibition, Mr. Chas. Lawrence, Collingwood, assures us that greater preparations are being made this year than ever to make it in every way a success. Send for prize list to the Secretary, T. J. Cameron, Collingwood, Ont.

Personal.—Mr. James Taylor, the stock salesman, of Mosboro, Guelph, Ontario, has just returned from conveying a contingent of fat cattle for a number of the farmers of Woolwich township and neighborhood, to the old country. The ship containing them was wrecked in a fog at the Scilly Islands, and more than half of them were lost. They were insured.

Books.—The demand for the books, "Feeding Animals," by Stewart, "Allan's Shorthorn History," "Horse Breeding" and "The Breeds of Live-Stock," by Sanders, being so great early in the season, our supply became exhausted, but we have recently replenished our stock, and are now prepared to forward any of these by return mail. For further particulars see advertising pages.

Old Numbers Wanted.—We have had during this year numerous subscribers to the JOURNAL requesting it from the beginning. While this is very gratifying to us, it has nearly exhausted our supply, and we find we are now almost entirely out of the issues of January, February, March, April, June, July and December, 1884. If any of our friends who do not wish to keep these back numbers will send them to us, we will esteem it a favor.

Oaklands' Sale of Jerseys.—We desire to call the attention of our readers of the sale of Jerseys, grade Jerseys, Dorset Horned sheep and stallions, by Valancey E. & H. H.

Fuller, at Oaklands Farm, Thursday, Sep. 1st, as advertised in another column, where full particulars of the stock are given. This farm is ½ mile from Waterdown station, Hamilton and Toronto Branch, where all trains on that line will stop that day, and 5 miles from this city.

Application of Phosphates.—We find that along the Niagara river front a good many of our farmers purchase superphosphates in Buffalo, and pay a heavy duty thereon, that that they may apply these to their potatoes in the hill. Some who have used it thus seem to think they get better results than by using stable manure. It is applied by hand, sprinkling a part of a handful over the hill about the time of the appearance of the potato above ground.

A Sheep Shearing Machine.—The *North British Agriculturist* of June 15th gives an account of a test between a sheep shearing machine invented in Australia, and an expert hand shearer. The expert had the advantage in point of time, but the machine did the work better, shearing so much more closely that there was a gain on each sheep of several ounces of wool. An eight-horse-power engine will drive 100 shears, one man attending each. The time required for the shearing of one sheep is only a few minutes.

The Western Fair.—The Western Fair and Art Exhibition will be held in the City of London, Ont., Sep. 19th to 24th, 1887. The prize list is both large and varied. The new grounds of the Queens Park will be occupied this year. They are very near the G.T.R. in the eastern part of the city, and \$60,000 have been expended in the erection of new buildings upon them this season. The Western Exhibition is always a very successful one. Send for prize list to the Secretary, George McBroom, London, Ont. See advertisement.

Weight of a Shorthorn Bull.—"EDITOR JOURNAL: Sir,—Could you inform me through your valuable JOURNAL, what should a first-class Shorthorn bull weigh at 12 months old, and what at 15 months? By answering this, you will oblige more than one.—British Columbian." A first-class Shorthorn bull at the ages mentioned should weigh about 1,000 lbs. and 1,200 lbs. respectively. They may in some instances be forced to weigh more than the weights mentioned, but such forcing is usually hazardous. The average weight at these ages when fairly well kept is about 800 and 1,000 lbs.

Guernsey Cattle.—The Guernseys are fully equal to the best in all respects as dairy animals. They excel all other breeds in the color of their product. Their calves are large, easily fattened, and make most excellent and profitable veals. They will meet the demand for high quality milk, now steadily increasing in all our large cities. They have been bred for generations for quality, and this is so uniformly transmitted that any Guernsey giving milk of a poor quality and color should be rejected as of impure blood.—Silas Betts, in the *Guernsey Breeder* for June.

Mr. Fearman's Prize for Hogs for Slaughtering.—Mr. F. W. Fearman, of Hamilton, is generously offering the following prizes on fat hogs for slaughtering at the Great Central Fair, to be held at Hamilton, Sept. 26th to 30th. One pen of five or more hogs, any breed or cross, 140 to 220 lbs. each, 1st prize, \$15; 2d, \$10; 3d, \$5. The donor to have privilege of purchase at market prices. The judgment on these hogs for the above prizes will be for the best meat-producing qualities—large hams; lengthy, deep sides; light shoulders and heads. Excessive fat no advantage.

The Maritime Monthly.—The second number of this neat little monthly has come to hand. It is published by John W. Wallace, Fredericton, N. B., and is devoted to stock and stock-raising, especially in connection with horses. Amongst other papers it contains one on "Morgan Horses," taken from a series of articles by John Dimon, of Windsor, Ont. Why not have gone a step further and said that this paper was taken from THE CANADIAN LIVE-STOCK AND FARM JOURNAL? It does seem so difficult for journalists to deal generously with one another. We wish the *Maritime Monthly* a useful and prosperous career.

Live-Stock in the United States.—The following table gives the respective numbers and rate of increase of live-stock in the United States during the last decade:

	Jan. 1st, 1877.	Jan. 1st, 1887.	Rate of increase.
Horses.....	12,496,744	10,155,400	22 p. c.
Mules.....	2,117,141	3,443,509	47 "
Milch Cows.....	14,525,083	11,260,800	24 "
Other Cattle.....	33,511,720	17,956,100	29 "
Swine.....	44,012,836	28,077,100	39 "

The total value of all the live-stock in the United States, Jan. 1st, 1887, is estimated at \$2,400,586,938, as against \$1,268,762,872 in 1877, an increase of 89 per cent.

Cross with the Buffalo.—Mr. A. Garner, South-end, Ont., some years ago had two Shorthorn grade cows bred to a buffalo, kept at the time at the museum at Niagara Falls. The result was the production of two females, which Mr. Garner worked as oxen for three years. One of them has produced three calves, the other was barren. They were then fed and killed; the one weighed 900 lbs., beef, hide and tallow, and the other 1035 lbs. The robe of the last killed one was sold for \$40, and the beef of both was pronounced by good judges as first class. We had the above from Mr. Garner himself and can vouch for its correctness. Can any of our readers tell us where male buffalos are to be had? Why could it not be made a profitable industry to engage in this line of breeding?

The Great Central Fair.—This exhibition will be held in the city of Hamilton, Sept. 26th to 30th. The prize list for stock is, as usual, full and complete. The Great Central is always noted for its fine exhibit of horses, particularly of the lighter classes, and the prize list this year is even fuller than ever. In the sheep classes the Dorset Horned have a place, and justly so. A very long list of special prizes of creditable amounts is offered by the manufacturers and other citizens of Hamilton. Entries should be made not later than Tuesday, Sept. 20th, after which date an extra fee of 50c. will be charged until Saturday, 24th Sept., when the books will be closed. Prize lists and all necessary information may be obtained from the Secretary, Jonathan Davis, Hamilton.

The Bohemian Oat Swindle.—From the *Country Gentleman* we learn that it is estimated that at least 2,000 farmers in the Cumberland Valley, Pennsylvania, have been operated upon within the past twelve months by the clever sharpers in this line, who practice upon the farmers, shall we say, simplicity? The spoils amount to \$500,000. It is in vain for the agricultural press to come to the rescue, when the farmers will not subscribe for these, and often when they do they neglect to read them. \$500,000 would have supplied the farmers of the three counties referred to with agricultural literature for a good while, but it seems they preferred giving the money to the swindlers. Our own farmers must be vigilant. The "White Star" oat swindle is abroad in the land. It is twin sister to the "Red Lyon" wheat swindle.

A Pleased Advertiser.—An "Ontario Manufacturer" volunteers the following appreciative expression of opinion: "I have had more enquiries from my advertisement in the *LIVE-STOCK JOURNAL*, two to one, than from any other of a number of prominent journals—daily, weekly and monthly—with the single exception of the *Montreal Witness*, which latter I have found to be second to no other in the land. To a wholesome person it is a gratifying as well as a significant fact that two journals, whose eminent characteristics are a fine and high moral tone, should prove to take highest rank as advertising mediums! This fact is complimentary not only to the journals thus pre-eminent, but to the Canadian people who seem so well to appreciate and believe in such journals. To us practical advertisers it is a teaching that "circulation" is only one of two important essentials to a paying advertising medium—the other of which is character. Yours, etc., Ontario Manufacturer."

Agricultural Societies.—For years past, several agricultural societies have given a year's subscription to the *JOURNAL* as a premium, thinking this would do more real good than the small cash prize usually offered. This plan has proved so satisfactory that in some societies the number has been increased to fifty copies, which has been the means of increasing the demand for a better class of stock. Few men will read the *JOURNAL* for a year without becoming convinced that it is to their advantage to make live stock raising and the dairy interests prominent features of their farming operations, or, if they have already given some attention to these matters, improve the stock they have. It is now the season of year when premium lists for fall fairs are made up. Will not our friends in those societies where the plan has not already been adopted use their influence to have the *JOURNAL* included among their premiums? Special rates will be given where a number of *JOURNALS* are offered in this way.

"Scientific Dairy Practice."—How to Obtain it Free. A number of letters received by the publisher of "Scientific Dairy Practice," indicate that Prof. Robertson's excellent review in July number of the *JOURNAL*, has stimulated the already lively demand for the book. In view of this, W. H. Lynch, the author, desires to inform our readers that while he has a few copies left of the first edition which are obtainable by a remittance of 25 cents (either to Mr. Lynch himself or to the *Stock Journal Co.*) by waiting a very few weeks longer anyone may obtain a copy free. The Canadian Government has bought out three-fourths of the coming edition for free distribution to Canadians. Mr. Lynch advises all who are so disposed in the

meantime, to send names and addresses of themselves or others wanting the book, either to W. H. Lynch, Danville, Que., or to any member of the Dominion Parliament, in which case they will be supplied just as soon as the book is out of press, without unnecessary delay.

Great Success of the Collynie Bred Bull Reformer.—We learn from the *Aberdeen Free Press* that the Shorthorn bull Reformer, bred by Mr. William Duthie, Collynie, Aberdeenshire, Scotland, has made a splendid record this year in the English show yards. He was got by the sire Earl of March (3487), and out of the dam Ripped Josephine, purchased as a yearling from Mr. Duthie by Mr. Law, New Keig. He worked several strong opponents as a two-year-old at the Highland Society's Show in Aberdeen. At *Dumfries* last year he was placed second in the aged class, and from thence he went to England, passing into the possession of that very successful exhibitor, Mr. Handley. This year he came out with first honors at the Bath and West of England Show, at the great show at Essex he got first prize, beating his famous rival, Royal Ingram, and winning also the Havering Park 100 guinea cup for the best Shorthorn, and the Waltham Abbey cup, as the best animal in all the cattle classes. Since the Essex show, Reformer has again stood first at Reading, beating Royal Ingram there also. The wonderful show-yard success of this bull reflects much credit on the Collynie herd which has furnished so many good bulls for Canada in recent years, as well as for other lands.

Remarkable.—A remarkable instance of maternal instinct, was displayed on Monday night in connection with Mossom Boyd & Co's Big Island Stock Farm. One of the cows of the thoroughbred Polled Angus herd was brought over from the Big Island to the Farm on the mainland, her calf being left on the Island. Thoroughbred aristocrats of the old sod are frequently charged with losing their parental instincts, and neglecting their offspring. Such is not the case with this particular thoroughbred. At about nine o'clock, Mr. Davidson, Superintendent of the Farm, noticed the cow in the meadow, quiet and apparently unconcerned, but though she appeared to graze the toothsome clover in sweet content, her heart was not at ease. No, her heart was on the Island, with John Bell, beating its blooming little head off, to John's intense disgust. At ten o'clock, by John's chronometer, he was brought to a sitting posture in his couch by a terrible bellowing and boeing over at the stable, and before he could arrange his disordered night cap, the boeing and bellowing was repeated at his door. Lighting a lantern, John went out, and there was the cow sure enough. Over to the stable they went, the old cow dodging from side to side, and affectionately giving John a rub in the ribs with her nose, much to his inconvenience, as his hands could not be used to ward off her caresses and act as braces at the same time, without serious loss to the grace of his tout ensemble. The cow had travelled a mile from the Farm to the lake shore, and swam a mile to the Island, in order to return to her calf, and must have accomplished the feat within an hour. That is the kind of stuff the Polled Angus of Big Island Stock Farm is made of.—*Bocaygeon Independent*.

The Provincial Exhibition.—The forty-second Provincial Exhibition of the Agriculture and Arts Association of Ontario will be held in the city of Ottawa, Sep. 19th to 24th. The prize list this year is a good one as usual. There are eight sections for horses, ten for cattle, nine for sheep and five for pigs, in addition to the poultry, implement, grain and fruit department, etc. In Clydesdales there is a special sweepstakes prize of \$25, presented by the Clydesdale Association of Canada for the best Clydesdale mare of any age, recorded in the Clydesdale Stud Book of Canada. The American Clydesdale Association offer a silver medal to the owner of the best Clydesdale stallion, and another to the owner of the best Clydesdale mare, recorded in either the Canadian or American Stud Books, bred in the Dominion; all competing animals to be recorded in the American Clydesdale Stud Book. Any further particulars may be obtained from Chas. F. Mills, secretary American Clydesdale Association, Springfield, Illinois. For Shorthorns, herd prizes are offered for best herd and for best Canadian bred herd. Pen prizes, consisting of jubilee silver medal, are offered for imp. and for Canadian bred in the classes for Leicesters, Lincolns, Southdowns, Hampshire and Oxford Downs, and the Prince of Wales prize goes to the best pen of Shropshire Downs. Jubilee silver medals are also offered for pens of imp. and Canadian bred in the Berkshire and Suffolk classes of pigs. Medals are offered for the best milkers of the Shorthorn, Ayrshire, Jersey, Holstein and grade classes, milking properties only to be considered. The Canada Company's prize is offered this year for the best 25 bus. of fall wheat, of the red or amber varieties. In the dairy department handsome prizes are offered for creamery and dairy butter for exportation and for other purposes, and the prize list for cheese is ample. We may also add what we

have referred to before, that the scenery of the Ottawa, where the Exhibition is to be held this year, is very fine. It is worth going a long distance to see the monumental piles of our Parliament Buildings, with their imposing impressiveness; the lumber mills of the Ottawa, where logs are cleft into slabs, boards and timbers, as rapidly as they can chase each other up the gangway, and to see the big kettle of the Ottawa's boil, as it has boiled with an awful hissing during the long centuries of the past.

The Mertoun Lodge Shorthorns.—We are in receipt of the private catalogue of the herd of pure bred Shorthorn cattle, the property of The Right Hon. Lord Polwarth, Mertoun House, St. Boswells, N.B. It affords us peculiar pleasure to give a notice of the present condition of the herd whence came our own stock bull Waterloo Warden (4722). The females catalogued number 98 head, of which to are Victorias and 2 Alpines of the Killybeg Mantlini tribe, 2 of the Aylesby Bright and 2 of the Aylesby Ruby branch of the Studley Anna tribe, 8 of the Aylesby Flower tribe, 2 of the Killybeg Lady Betty tribe, 3 of the Aylesby G. tribe, 9 of the Aylesby Tellunas, 10 of the Aylesby Foggathorpes, 6 of the Killybeg Calomels, 2 of the Killybeg Hecubas, 7 of the Killybeg Georgies, 2 of the Warlaby Farewells, 21 of the Aylesby W. (wave) tribe, 2 of the Kings Fort Nancy tribe, 1 of the Easthorpe Strawberry, 4 Barmpton Gwynnes, 1 of the Stamwick Park Princess tribe and 4 of the Oxclose Fairfax tribe. The breeders of both sires and dams are given, an excellent practice in any catalogue. Then follows a summary of females according to sires and tribes, after which comes a list of the more prominent sires mentioned in the pedigree of the females, with a portion of the pedigree of each sire. This list comprises 140 individuals, and a large majority of them are of Booth blood. The sires at present in use are, King of Trumps (31512); red and white; bred in 1872 by Mr. J. B. Booth, Killybeg. Sir Arthur Irwin (44016); roan; bred in 1879 by Mr. Wm. Linton, Sheriff Hutton. Man o'War (Aylesby W); roan; bred in 1885 by Lord Polwarth. St. Boisail (53624), (Bright); rich roan; bred in 1885 by Lord Polwarth. Sir Mowbray Christian; red and white; bred in 1886 by executors of Mr. T. C. Booth; and Crested Knight (Farewell); roan; bred in 1886 by Lord Polwarth. Then follows a description of the Border Leicester and Shropshire flocks of sheep, the latter at Humber in East Lothian. The flock of Leicesters originated in 1809, and has for a long term of years been entirely self supporting. The average prices for shearing rams during recent years at ram sales have been about £24, while individual rams have sold from the flock for £195, £180, £170, £160, £155 and £150, each. The flock of Shrops have been in existence for 90 years. It is founded mainly on drafts from the flocks of Lord Chesham, and Messrs. Barker, Beach & Co., and may be seen on application to Mr. Anderson, Humber, Upper Keith. The Clyde horses are descended from the best prize winning strains in Scotland. The horses last used in the stud were Pride of Galloway (601) and Good Kind (2846), Goldenberry (2828), by Darnley (222), is the present stock horse. There is also a herd of Berkshire and Middle White pigs. Mertoun is one mile from Maxton station and three miles from St. Boswells, N. B. Railway, and may be viewed any week day on application to Mr. James Rodgers, Estates office, Mertoun, St. Boswells.

Table of Contents.

STOCK DEPARTMENT:	PAGE
Editorial Notes	560
An Editor's Idea of Fairness	561
The Breeding and Management of Swine	562
Mixed Husbandry, with Cattle as a Speciality	563
The Style of Hog Wanted	564
Stock Raising in Ontario	564
Of Which Sex is the Colt	564
Dominion and Industrial Exhibition	564
Special Prizes	564
Farming in Manitoba	564
Purchasing Stock for the United States	56
A Chatty Letter from the Ottawa	56
Reply to Mr. Dryden	56
Prof. Robertson's Criticism of <i>Scientific Dairy Practice</i>	56
A Strange Show-yard Decision	56
A Difference of Opinion	56
Ayrshire Revision	56
Rambling	56
Inquiries and Answers	56
Stock Notes	570
VETERINARY DEPARTMENT:	
Horse Shoeing	57
Sturdy in Sheep	57
Cure for Disabled Mare	57
Rheumatic Ox	57
FARM DEPARTMENT:	
Editorial Note	57
Fall Wheat, Its Failures, Causes, and Remedy	57
Bulletin X.—Weeds, Agricultural College, Guelph	57
Report of the Judges on Prize Farms—Continued	57
Hints for August	57
DAIRY DEPARTMENT:	
Hints on How to Make Prize Butter	57
Over-salting Butter	57

POULTRY DEPARTMENT:

Poultry Prospects	572
Poultry Keeping	572
Poultry Keeping	572

APIARY DEPARTMENT:

Editorial Note	573
The Season	573

HORTICULTURAL DEPARTMENT:

Drouth and Fruit	573
------------------------	-----

HOME DEPARTMENT:

Wild Flowers (Poetry)	574
Canada at the Colonial	574

MISCELLANEOUS:

Advertisements	576-582
Jottings	575

Stock Notes.

Horses.

Mr. Wm. Rennie, seedman, Toronto, has erected large stables on Duchess street, within five minutes' walk of the seed store, and is now expecting daily a large consignment of some 16 head of pure bred Clydes, 1, 2, and 3 years old, 12 of them are stallions. Six shetlands are also coming and two Welsh ponies. A number of the stallions are from Old Danley (222).

The Messrs. Galbraith Bros., Janetville, Wisconsin, U. S., have commenced importing Cleveland Bays along with their other draught horses. They received a shipment at the end of June consisting of 10 head, all of which arrived in splendid shape, and are the best that money can buy in England. Amongst them are some of the principal prize-winners of the Old Country, as Lord Derby, Star of Cleveland, etc.

Mr. John McIntosh, Stellarton, Pictou Co., Nova Scotia, a contractor and breeder of Clydesdale horses, and Shorthorn cattle, is advertising some of these in another column. The Shorthorns were originally purchased from A. Johnson, Greenwood, Ont. Mr. McIntosh along with a few others, are working up the interest in thoroughbreds in that locality, and we hope they will meet with that success of which their enterprise is deserving.

Mr. Anson Garner, Southend, Ont., is one of a company owning three imported Percheron stallions, one kept by the above gentleman, one by D. Shirk, Humberstone, and the third by John Miller, Bertie. These were purchased—one from the Oaklawn stud of N. W. Dunham, Illinois, and the other two from Powell Bros., Springboro, Pa. The stock from these horses is good, quite a number of them having gone to the States in the face of a 20 per cent. duty.

Mr. Thos. Good, of Richmond, Ont., writes us to say that the Clydesdale stallions purchased last spring, Jock Elliot and Duke of Argyle (although not so successful as The Montgomery last year), have made fairly successful seasons. Doncaster, for a 3-year-old, has done remarkably well. All three have proved themselves sure foal getters, which will, no doubt, tell for them in the future. The Clydesdale stock on the farm are all doing well. Bell of Richmond has a dandy filly at her foot, by The Montgomery.

Shorthorns.

Mr. E. L. Puxley, Westbourne, Man., importer and breeder of Shorthorn cattle, writes: "All our cattle in this section are doing grandly, and more especially thoroughbred calves."

Mr. Laport, Maple Lane Farm, Mildmay, Ontario, has sold one yearling bull Duke of Ambleside, to Mr. Louis Moyer, Ambleside, and sold another the same age, Queen's Favorite, to Mr. D. Culliton, Mildmay.

Messrs. R. Rivers & Son, Walkerton, Ont., report their stock as doing well and the crops excellent. The stock bull Victory at 20 months weighs 1,485 lbs., and is suiting admirably. That part of the country has been blessed with a fair share of rain, which cannot be said of a good many sections of the Province.

Mr. John Lamont, of Caledon, Ont., reports that his herd of Shorthorns is increasing. He has also bought a young Hereford bull from the herd of Mr. F. Fleming, of the Park, Weston, Ont., which will enable the people of the neighborhood to compare the growth of grade Hereford steers for export with that of Shorthorns.

Mr. Peter Arkell, Summerhill Farm, Teeswater, Ont., has made the following sales of pure Shorthorn bulls during the past few months: 1 to James Henderson, Wingham; 1 to John Agnew, Belgrave; 1 to Samuel Needham, —; 1 to P. McKenzie, Lucknow, the imported bull Councilor; 1 to John Hogan, Wingham; 1 to Patrick O'Callaghan, Whitechurch; 1 to Joseph Walker, Teeswater; 1 to D. T. McKenzie, Lochalsh; 1 to Hugh Whorton, near Guelph; 1 bull calf and pair shearing Oxford Down ewes to John Cusen, Harriston; and all at good prices.

Mr. T. C. Pattenon has sold a dozen Shorthorn yearling bulls at good prices to Mr. L. Hartshorne, of Dundee, Manitoba, who came over from the North West with a commission to buy stock for the settlers in the neighborhood of Battledore. Mr. Hartshorne served the full term at the Guelph Agricultural College, and is an exceptionally good judge of cattle and sheep. The animals he has taken back filled three cars and were a credit to his judgment. He came prepared to give a good price for a good article, which, having regard to the great cost of shipment and travelling, is the only paying policy for our friends in the territories.

The enterprising firm of Sharman & Sharman, of Souris, Manitoba, have again added to their already choice herd of Shorthorns by the purchase of the two-year-old heifer Red Countess, a thick, heavy-fleshed animal that has already won prizes wherever shown; also the highly-bred Cruickshank bull Buchanan

Advertising Rates.

The rate for single insertion is 18c. per line, Nonpareil (12 lines make one inch); for three insertions, 15c. per line each insertion; for six insertions, 12c. per line each insertion; for one year, 10c. per line each insertion. Cards in Breeders' Directory, not more than five lines, \$1.50 per line per annum. No advertisement inserted for less than 75 cents.

Copy for advertisement should reach us before the 25th of each month (earlier if possible). If later, it may be in time for insertion, but often too late for proper classification. Advertisers not known at office will remit cash in advance. Further information will be given if desired.

FOR SALE—A SUFFOLK PUNCH STALLION, 4 years old. Address, JUDSON ROSHDUGIT, Branchton, Ont. jn-6

FOR SALE—A number of Pure Shorthorn Bulls, with splendid pedigrees and good individually, two of them old enough for service, also, **Young Berkshire Pigs**, both sexes, with twelve crosses of the very best English blood. Prices positively cheap. THOS. SHAW, Woodburn P. O., Wentworth Co., Ont.

FOR SALE, Two litters, Poland China Pigs, farrowed May 18 and 26. Pedigrees eligible for A. P. C. R. guaranteed; g. dam, Beauty, one of A. C. Moore & Sons, Illinois, best. Also Tecumseh, sire of above, farrowed July 21, 1884. Write for prices. jv-3 JOHN MORRISON & SON, Mandaum, Ont.

FOR SALE A number of Shorthorn Bull Calves, by Imp. Waterloo Warden (47222) and British Sovereign, a grandson of the great Sir Simeon, also Shorthorn Cows, Heifers and Heifer Calves, and some 20 to 30 head of high-grade Shorthorn Females, different ages. Would make a splendid lot for herd building in the North West. THOS. SHAW, Woodburn, Co. Wentworth, Ont.

FOR SALE.

The subscriber has for sale a few choice young "Berkshires," Chester Whites and "S. E. Yorkshire" pigs. Write for prices, etc. jv-1 C. EDGAR WHIDDEN, Antigonish, N. S.

BERKSHIRE PIGS.

Your choice of 40 BERKSHIRE Boars and Sows of different ages. Good pedigrees and individual excellence, at reasonable prices. J. E. BRETHOUR, Burford, Ont.

FOR SALE.

A few good SHORTHORN females, some of them show animals and prize winners, in calf to an imported bull; can furnish a splendid young herd. Michigan parties can visit me cheaply and quickly, just eight miles from river St. Clair; reasonable figures. Address or see D. ALEXANDER, Brigden, Ont.

DORSET HORNED SHEEP.

Dorset Horned Sheep, the most prolific, producing lambs twice within the year, the most hardy, and the earliest to attain maturity. Full particulars of

DUKE & SON, Dorchester, England. my-if or, STANFORD & ROLPH, Markham, Ont.

SHORTHORNS FOR SALE

SEVEN BULLS—From ten to seventeen months old, and a number of COWS AND HEIFERS, all registered in D. S. H. H. Book. Address, J. & W. B. WATT, SALEM, ONT.

ARTHUR TOPHAM,

78 Wood Street, Bold Street, Liverpool.

Exporter of every description of English pedigree Horses, Cattle, and Sheep. Buyers visiting England offered every assistance. Lowest rates for freight. jv-6

For Sale or Exchange.

FOR A WELL BRED HEAVY DRAUGHT STALLION OR Standard bred Trotting Brood Mares or Fillies in foal.

A fine herd of registered Ayrshire cows and heifers, consisting of ten cows in milk, ten heifers and one 1 year-old bull. These are choicely bred and great milkers; will be sold cheap to make room for trotting stock. Three fine high grade young Hereford bulls, also a number of fine grade

Hereford, Angus, Holstein, and Jersey

Heifers. About 25 head of Shropshire Down ewes and lambs; Canadian bred Clydesdale colts and fillies, 1 and 2 year old. A very fine Morgan Stallion, 8 years old, stylish and a good traveller. Grand-daughters of Rysdyk's Hambletonian (20), and Volunteer, in foal to standard sires. Registered Berkshire pigs all ages.

FOR CASH. A few very choice A. J. C. C. H. R. Jersey females. Solid colars.

Address,

E. PHELPS BALL,

Vet. Surgeon,

"Lee Farm," Rock Island, P. Q.

Laird, got by imported Cruickshank bull Vernillion; he is a fine promising young bull and with the care he will receive from his new owners he will be sure to be heard of again. He was awarded 2d prize at the Western Fair, London, last fall in a large ring. He also obtained 2d prize at the show in St. Thomas. Both of these animals came from the herd of W. S. Hawkshaw, Glanworth, Middlesex Co.

Mr. Geo. Thompson, Alton, Ont., is the owner of some 26 head of Shorthorns, mainly Dates in their foundation. Some are of the Laura Languish family, bred from imm. Laura Languish, by imp. Sweetmeat. Some are Mysies, from the imp. cow Mysie 37th, bred by A. Cruickshank, Siltiton. Several cows and heifers are of this strain, and there are other good ones such as the Syms, of Red Kirk. Mr. Thompson has used such bulls as Cambridge Duke 2nd, a Rose of Sharon, bred by B. F. Vannet's, Kentucky; the Earl of Airdrie, bred by L. Combs, Kentucky, sire, 2d Duke of Oneida, dam, 17th Duke of Airdrie. The present stock bull is Corporal Crimson, bred by A. Johnson, Greenwood. His sire is imp. Lewis Arundel, and dam, Crimson Flower 2d, by imp. K. C. B. —. Mr. Thompson has been located as at present for 10 years, but kept good cattle long before that date.

Mr. H. H. Spencer, writes: "My stock have done extra well this season. The Shorthorn calves are an extra lot, all got by Cruickshank bulls. My Shropshires have been very prolific, producing a very choice lot of lambs. I think the date will be very good this season, as I have already shipped seven very choice lambs this year. One, a nice yearling, to Mr. W. C. B. Ruthin, Deseronto, Ont., and six other very choice to Mr. Uriah Privett, Greensburg, Ind., U. S. Amongst this lot there are some extra show rams. The noted show ram, Thomas Barber, 1665, vol. 11, A. S. S. record, brought down the scales over 300 lbs., and some of the yearlings are over 200 lbs. each. My Berkshires have bred well, and am having ready sale for them. Have sold a sow to Mr. Wm. Mane, Brooklin; a sow to Mr. A. Retchen, Brooklin, a choice boar to Mr. John Brown, Springfield, Ont.; a boar to Mr. Johnson, of Cannington, Ont.; a boar and sow to Mr. W. A. Torer, of Quebec, and 9 other boars and sows in the vicinity of Brooklin."

Galloways.

Mr. Wm. Kough, Owen Sound, Ont., has sold to Mr. Wm. G. Smith, of Portage la Prairie, the cow Duchess Louise, —1067— Duchess Louise 3d, heifer calf of above, calved 6th April, 1887; the bull Pioneer of Owen Sound 3236, calved 6th June, 1886, all pure-bred Galloways; and the bull Black Prince, calved 4th April, 1886. Mr. Smith bought all the half bred Galloways he could find in the neighborhood calved in 1886, paying about \$50 each for bulls and heifers. The quality of the cross is so conspicuous that the farmers in the neighborhood of Mr. Kough's herd are using the Galloway breed in large numbers.

Jerseys.

The sale of Messrs. Valancey E. & H. H. Fuller will be held on Thursday, Sep. 1st. Full particulars of sale given in another column. This will be one of the most important sales ever held in Canada, not to speak of the Dorset Horned sheep and horses.

Sheep.

Mr. David Turnbull, Pond Mills, Ont., is now in Britain, purchasing Shropshire Down sheep, which are expected to arrive before the time of the autumn exhibitions.

Mr. Wm. Laidlaw, Wilton Grove, has just returned from England, having bought the best Cotswold sheep he could find. They will be shipped soon after the Royal Show in England.

Mr. George Deo, New Sarum, Co. Ligon, Ont., purchased in the fall of 1886 pure bred Merino ewes, fifty in number, also the half interest in the famous imported ram, Chance, from Mr. Rock Bailey, Oak Grove, Union, Ont. From this flock, mostly yearling ewes, Mr. Deo has raised forty lambs, a few of the ewes having dropped lambs twice inside of six months, and the entire flock averaged 12 pounds of wool each, which, at the low price of 20 cents, Mr. Deo reminds us, places the Merino sheep at the front as the most profitable sheep for the farmer to keep, as he can keep many more on an equal quantity of feed. We are pleased to notice that this useful breed of sheep is again coming more and more into favor.

It has long been a motto with Mr. John Dryden, M. P. P., Brooklin, Ont., that there is much more room at the top of the ladder than at the bottom for operations even in stock. He has accordingly bought 70 head of Shropshire ewes of the very best and purest breeding from such breeders as Farmer, Bowen, Jones, Crane and Tanner, Everall, Mansell, etc. The excellent quality of the stock comprised in this purchase, will, no doubt, create a sensation in the show-rings this fall, commencing with the Toronto Industrial. They were to leave Liverpool on the 20th July, and as the consignment is more in number than will suffice for Mr. Dryden's own wants, it will afford an excellent opportunity for parties desiring it to get first-class blood of this breed at reasonable prices.

FOR SALE Some eight or ten very well bred Shropshire Down Ram Lambs and one Shearling, all bred from imported stock on both sides. Terms easy. THOS. SHAW, Woodburn, Co. Wentworth, Ontario.

BROOKSIDE FARM

New Glasgow, Pictou County, N. S.,

H. J. TOWNSEND, Proprietor,

—BREEDER OF—

STANDARD-BRED TROTTERS

American Cattle-Club Jerseys,

Shropshire Down Sheep, Collie Dogs, Black-Red Games, Pekin Ducks, Toulouse Geese. Correspondence solicited.

FIRST ANNUAL SALE

OF

THOROUGHBRED STOCK

OAKLANDS JERSEY STOCK FARM

Thursday, Sept. 1st.

THE JERSEYS INCLUDE

Sons and daughters of CANADA'S JOHN BULL, sweepstakes prize bull of Canada, admitted to be one of, if not the best bred Jersey bull in the world, and whose get produce the highest price on the market. He is more closely related to MARY ANNE OF ST. LAMBERT than any bull in the world, save his own son, Oaklands' John Bull. DAUGHTERS of COUNT ST. GEORGE 8403 (Coomassie), sire of Madge 24726, 25 LBS. IN 7 DAYS at two years old; FIRST PRIZE (74 ENTRIES) Royal Jersey Show, 1882; SOLD AT AUCTION FOR \$2600; grand daughter SWEEPSTAKES. DUKE 1905, SIRE OF SIX TESTED COWS over 14 lbs. Grand daughter of KING KOFFEE 11843, sire of 4 TESTED COWS OVER 14 LBS. Female descendants of EUROTAS, 778 LBS 1 OZ. of butter in a year—CARLO 5559, Yankee 327. Gilderoy 2107, sire of 12 tested daughters over 14 lbs. Duke of Darlington 2460, sire of 6 TESTED DAUGHTERS over 14 lbs. MERCURY 432, sire of 12 TESTED DAUGHTERS over 14 lbs. Daughters of GOLD COAST 5521, whose female ancestors (except one) have all for three generations, tested over 14 lbs. and whose dam, Oza, tested 22 lbs. 10½ oz. Also

PURE ST. LAMBERT BULL CALVES

sons of CANADA'S JOHN BULL, out of tested daughters of STOKE POGIS 3rd, the greatest of all Jersey Bulls. THE COWS include prize-takers and tested cows and are superb animals; some freshly calved, others due to calve to our celebrated stock bulls. All are registered, or will be registered before sale, in the American Jersey Cattle Club Herd Register.

We will also sell some GRADE JERSEYS. We will offer for sale a draft of

DORSET HORNED SHEEP

Imported or from imported ewes and rams, as well as a

SHIRE STALLION, OLD SORT

inbred to William the Conqueror (2343) and who is one of the best Shires ever imported to this country.

IMPORTED CLYDESDALE STALLION STAR OF GARNOCK

Sire, Star of the North (2435); dam, Garnock Maggie (2810), and

Standard Trotting Bred Stallion Isaac W 1388

Sire, Warlock (1387), brother of Viking, 2.20½; g. sire, Belmont (64), sire of Wedgewood, 2.19; Nelwood, 2.18¼, and twelve others in 2.30; g. g. sire, Alexander's Abdallah (15), sire of Goldsmith Maid, 2.14, and four others better than 2.30. Dam, Grace Galloway; she by Happy Medium (400), sire of Maxy Cobb, 2.13¼; Busy Medium, 2.20¼; Brigadier, 2.24¼, and twenty-three others better than 2.30; he by Rysdyk's Hambletonian (10), sire of Dexter 2.17¼; Nettie, 2.18; Orange Girl, 2.20; Gazelle, 2.21, and thirty-five others better than 2.30—dam Princess. Grace Galloway's dam, County House Mare, dam of Netrie, 2.18; she by Seeley's American Star (14), sire of four better than 2.30. Warlock's dam, Waterwitch, dam of Viking, 2.20½; Mambrino Gift, 2.20; Scotland, 2.22½; Wavelet (trial) 2.28¼, she by Pilot, jr. (12), sire of three in 2.30, and of the dams of Maud S., 2.8¼, Jay Eye-See, 2.10.

OAKLANDS FARM is ¼ mile from WATERDOWN STATION, on Hamilton and Toronto branch of Grand Trunk Railway, and five miles from Hamilton. ALL TRAINS on this branch will stop at Waterdown Station on that day.

Sale at 11 o'clock. No Postponement on Account of Bad Weather.

VALANCEY E. & H. H. FULLER.

IMPORTANT SALE

OF

SHORTHORNS

AT DELAWARE

(12 miles from London, 3 miles from Komoka Station, G. T. R.)

ON THURSDAY, 13th OCT.

When the entire herd was sold last year, knowing the suspicion with which draft sales are held, and the poor prices so often realized, has reluctantly concluded to offer the ENTIRE BELVOIR HERD. Nothing marketable will be retained. This will be an opportunity to obtain the best Bates blood seldom offered to the Canadian breeders, and the proprietor confidently looks for that support from them which heretofore has been so generously given by breeders in the United States. Catalogues in due time.

RICHARD GIBSON.

DELAWARE, ONT.

We (THOS. NICHOLSON & SONS) having dissolved partnership, and as I, the undersigned, am retiring from business, I will sell my portion of the

SHORTHORN HERD OF CATTLE

numbering 17 head, by

PUBLIC AUCTION

WITHOUT RESERVE

—TO BE HELD—

ON SEPTEMBER 7th, 1887

¼ miles south-west of Park Hill Station, G. T. R., Co. Middlesex, consisting of Cows, Heifers and Bull Calves.

The calves and heifers are the get of the celebrated prize bull, "Prince Albert." The cows are also in calf to him and Imp. Warrior. They are all registered in the D. S. H. H. B., several of them having been prize-takers at County and Township Shows. Every animal offered will be sold to the highest bidder.

TERMS—\$25.00 and under, cash; over that amount 12 months' credit.

Catalogues sent on application.

THOS. NICHOLSON,

aug-1

Sylvan P. O., Ont.

WESTERN FAIR,

Industrial and Art Exhibition

LONDON, CANADA

SEPT. 19th to 24th, 1887.

LIBERAL PREMIUMS

will be given for Live Stock, Horticultural Products, etc.

\$60,000.00

have been expended in erecting new buildings on the Queen's Park for the forthcoming Jubilee Exhibition.

A GRAND PROGRAMME of attractions is being prepared by the Committee.

Prize Lists and all information may be had on application to the Secretary.

This exhibition will be the great event of the season. Wait for it.

A. W. PORTE,

President.

GEO. McBROOM,

Secretary.

WYTON

Stock-Breeders' Association

BREEDING OF PURE

HOLSTEIN AND FRIESIAN CATTLE

A SPECIALTY.

We have the only pure breed of Aaggie Stock in the Dominion, the head of our herd being Sir James of Aaggie, No. 1452, H.H.B., Vol. 6. Also Aaggie Ida, No. 2600, H.H.B., Vol. 6. This family is noted for its exceptionally fine milk producers.

The largest herd of Holstein cattle in Canada, from which we are prepared to sell bulls and heifers. If you are in want, come and see us. Prices reasonable. Correspondence solicited.

Address

WM. B. SOATON,

Secretary, Wyton, Ont.



NOTICE TO CONTRACTORS.

SEALED TENDERS, addressed to the undersigned and endorsed "Tender for

WHARF, SAULT STE. MARIE,

will be received until FRIDAY the 5th day of AUGUST next, for the construction of a wharf at Sault Ste. Marie, Algoma County, Ontario, according to a plan and specification to be seen on application to Captain Wilson, Collector of Customs, Sault Ste. Marie, and at the Department of Public Works, Ottawa, where printed forms of tender can be obtained.

Persons desirous of tendering are requested to make personal enquiry relative to the work to be done, and to examine the locality themselves, and are notified that tenders will not be considered unless made on the printed forms supplied, the blanks properly filled in, and signed with their actual signatures.

Each tender must be accompanied by an accepted bank cheque made payable to the order of the Honorable the Minister of Public Works, equal to five per cent. of the amount of the tender, which will be forfeited if the party decline to enter into a contract when called upon to do so, or if he fail to complete the work contracted for. If the tender be not accepted the cheque will be returned.

The Department does not bind itself to accept the lowest or any tender.

By Order,
A. GOBEL,
Secretary.

Department of Public Works,
Ottawa, 14th July, 1887.



TIMBER AND LAND SALE.

CERTAIN lots and the timber thereon situate in the Townships of Allan, Assignack, Bidwell, Billings, Carnarvon, Campbell, Howland, Sheguiandah, Tehkummah, and Aills on the Manitoulin Island, in the District of Algoma, in the Province of Ontario, will be offered for Sale at Public Auction in blocks of 200 acres, more or less, on the first day of September next, at 10 o'clock, a.m., at the Indian Land Office in the Village of Manitowaning.

Terms of Sale.—Bonus for timber payable in cash, price of land payable in cash, a license fee also payable in cash and dues to be paid according to Tariff upon the timber when cut.

The land on which the timber grows to be sold with the timber without conditions of settlement.

At the same time and place the Merchantable Timber of not more than nine inches in diameter at the butt on the Spanish River Reserve and French River lower Reserve will be offered for sale for a cash bonus and annual ground rent of \$1.00 per square mile, and dues to be paid on the timber as cut, according to Tariff of this Department.

For full particulars please apply to Jas. C. Phipps, Esq., Indian Superintendent Manitowaning, or to the undersigned.

No other paper to insert this advertisement without authority through the Queen's Printer.

L. VANKOUGHNET,
Deputy of the Supt. Gen'l.
of Indian Affairs.

Department of Indian Affairs,
Ottawa, 2d June, 1887.

3j-2

FOR SALE A number of pure-bred April Berkshire Pigs, with pedigrees of twelve crosses of the purest blood. Prices reasonable. THOMAS SHAW, Woodburn, Co. Wentworth, Ont.

FREE A TRIAL PACKAGE OF THE Celebrated MARIUS AMBER WHEAT to anyone sending me the address of ten farmers, large growers of wheat. Address, L. D. STAPLES, PORTLAND, MICH. aug-2

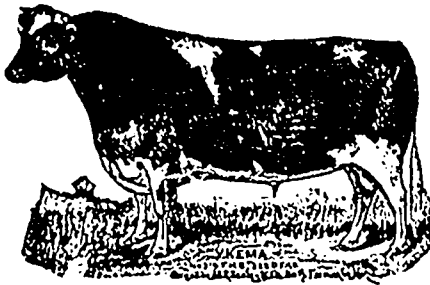
WESTMINSTER POULTRY FARM
J. W. BARTLETT, Proprietor, Lambeth P. O., near London, Ont.,

EGGS FOR HATCHING from Choice PLYMOUTH ROCKS, WYANDOTTES, and DARK BRAHMAS.

This season I bred the highest scoring P. Rock Cockerel ever shown in Canada, with one exception, scoring 95 points. Eggs, \$2 per 13 from same yard.

In Wyandottes and Dark Brahmams my birds made the highest score ever made in Canada. Wyandottes, 94; Brahmams, 95 points. The breeding birds in both these yards score from 90 to 94 points, proving them the best in Canada. Eggs, \$3 per 13.

SMITH BROS. MOUNTAIN VIEW STOCK FARM



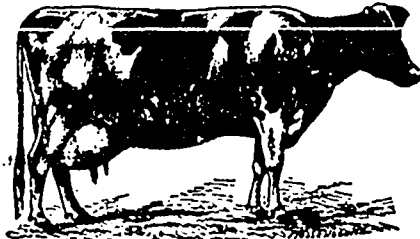
DUNDAS, ONT.

Breeders and importers of pure-bred

HOLSTEIN-FRIESIAN CATTLE

Stock always on hand for sale. Send for catalogue. Visitors always welcome. jne-6

The Manor Stock and Dairy Farm



HOME of the imported Holstein-Friesian bull MARS ELLIS No. 661, Vol. 1, H. F. H. B., selected in North Holland by special request, and whose 3 calves secured first prizes at the Dominion Exhibition, held at Sherbrooke, Que., Sept. last, 1886.

Parties wishing to secure bull calves or yearlings from such a grand individual and out of nothing but imported Holstein-Friesian cows, will find it to their advantage to write to

F. N. RITCHIE,
Ste. Anne la Pevade, Co. Champlain,
on line C. P. R., near Quebec.

No Reserve. All stock for sale, and in A1 condition.

M. COOK & SONS, Aultville, Ont.

Importers and breeders of

SUPERIOR STRAINS OF HOLSTEIN-FRIESIANS



Herd headed by the famous bulls: Sir Archibald, whose dam, Kronje, has a record of 66 1/2 lbs. of milk in a single day, and 18 lbs. 12 oz. unsalted butter in seven days, and who has won more medals and first prizes at the leading fairs during the last two years, both individually and as head of herd, than any other Holstein bull in Canada. Jennie B's dam Barrington 4207, out of Jennie B, who has a milk record of 82 1/2 lbs. at four years of age, and by the famous Barrington out of Hamming, with a record of 99 lbs. milk in a single day. Cows all selected with great care and from the most noted milk and butter strains. Young bulls for sale at a bargain. Write to us before purchasing. Satisfaction guaranteed.

MAPLE LODGE STOCK FARM

Stables one mile west of Lucan Crossing, of London, Huron and Bruce and Grand Trunk Railways.

We breed and have for sale first-class

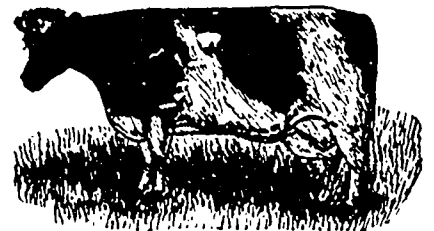
SHORTHORNS, LEICESTERS and BERKSHIRES

The choicely bred bulls BARON CONSTANCE 5th and DUKE OF COLONUS head the Shorthorn herd. A few very fine young bulls and a choice lot of young cows and heifers for sale. Prices right.

Come and see us. JAS. S. SMITH, Maple Lodge P. O., Ont.



A. C. HALLMAN & CO., NEW DUNDEE, WATERLOO CO., ONT.



Importers and Breeders of Thorough bred

HOLSTEIN-FRIESIAN CATTLE.

Herd headed by the noted prize-winner Prairie Aggie Prince H. F. H. B. No. 2, first prize at the Industrial and Provincial in 1886; dam, Prairie Flower, 5 yr. old butter record of 20 lbs. 1 oz. unsalted butter per week. This herd has been crowned with more honors in the show-ring than any other herd in Canada. Selections made from the finest herds and most noted milk and butter producing families in America. Every animal selected for its individual merit—symmetry, size and weight a special object. Our motto, "QUALITY." Stock for sale. Visitors welcome. Correspondence solicited.

JAMES DRUMMOND,

Petite Cote, Montreal.

Importer and Breeder of PURE-BRED

AYRSHIRE CATTLE



Of Large Size, and from Choice Milking Strains.

The herd numbers 65 head, and for three years in succession has won Provincial or Dominion prize as best milkers. The imported bull PROMOTION (3212) at head of herd.

Young Stock on hand at all times for sale. fe-1y

OAKLANDS 'JERSEY' STOCK FARM.

(All registered in the American Jersey Cattle Club Herd Register.)



Cows with well-authenticated test of from 14 lbs. to 24 lbs. 13 oz. in one week, and from 81 lbs. to 106 lbs. 12 1/2 oz. in 31 days are in this herd. Young bulls (registered in the above herd book) for sale from \$100 to \$500 each.

A herdsman always on hand to show visitors the stock, and the stock-loving public are always welcome.

no-y VALANCEY E. FULLER, Hamilton, Ont.

ALTON HALL STOCK FARM.

H. SORBY, Proprietor.

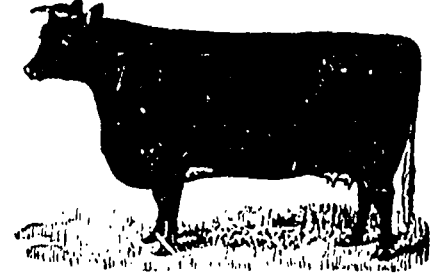


IMPORTERS AND BREEDERS OF GALLOWAY CATTLE AND PLYMOUTH ROCK FOWLS.

Galloway Bulls, Cows and Heifers for sale, (near Guelph.) H. SORBY, Proprietor, Gourock, Ont.

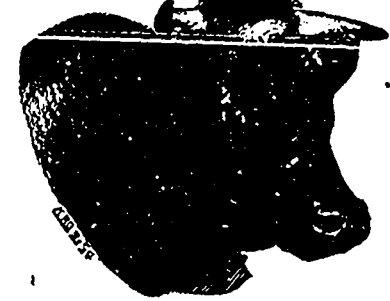
IMPROVED YORKSHIRE PIGS
SHIRE AND CLYDE HORSES. **SHROPSHIRE SHEEP.**
J. Y. ORMSBY, V. S., **ORMSBY & CHAPMAN,** *GEO. S. CHAPMAN.*
 —MEMBER—
English Shire Horse Society
Dominion Clyde Horse Association.
English Nat. Pig Breeders' Association.
American Sheep, Sheep Breeders' Assoc.
 All our pigs registered in the English Herd Book. "Good Stock with Straight Pedigrees," our motto.

FRANK R. SHORE & BROS.
 R. R. STATION, LONDON, P. O., WHITE OAK.



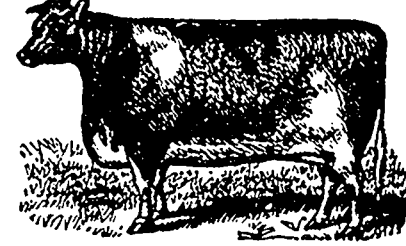
—BREEDERS OF—
SHORTHORNS AND SHROPSHIRE
 Have a grand lot of bull calves sired by our imp. Cruickshank bull Vermillion (50587), and a very choice lot of heifers, now in calf to Vermillion; also shearing ram and ram lambs from imp. sire and dams. Prices moderate. Terms easy.

JOHN DRYDEN,



BROOKLIN, ONT.
 BREEDER AND IMPORTER OF
Shorthorns, Clydesdales, and Shropshire Sheep.
 Last importation of bulls and heifers arrived in Dec., 1885. Send for Catalogue.

ARTHUR JOHNSTON,
 Greenwood, Ont., Can.



18 Aberdeenshire Shorthorn Bulls
 (VERY FINE)
 and heifers landed at Greenwood on Dec. 18. Twelve imported and six home-bred bulls for sale, besides cows and heifers, imported and home-bred. Send for Catalogues. I have also imported Clydesdale stallions and mares for sale. Claremont Station on the C. P. R., and Pickering, on the G. T. R. Come and see me.

MESSRS. H. & I. GROFF,
 Elmira, Ont., Can.,

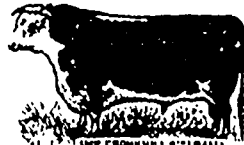


Importers and Breeders of
SHORTHORN CATTLE.
 The highly-bred Booth bull Lord Monrath—2208— is at the head of the herd. Lord Monrath was bred by Sir Hugh Aylmer, of West Dereham Abbey, Stokeferry, Norfolk, Eng. The Mantilla, Lady Day, Roan Duchess and Princess strain Young stock always on hand for sale. Correspondence solicited.

THE GLEN STOCK FARM,



Innerkip, Oxford Co., Ont.
SCOTCH SHORTHORNS,
HEREFORDS,
ENGLISH SHIRE HORSES,
BERKSHIRE PIGS.

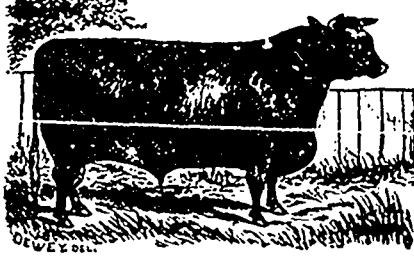


SEVERAL grand BULL CALVES FOR SALE at reasonable prices, out of imported cows by imported Earl of Mar (47851), winner of Gold Medal at the Grand Dominion and 30th Provincial Show and numerous First Prizes, also some very fine Hereford heifers and bull calves, by imported Cronkhill 8th, out of imported cows, for sale. Cronkhill 8th, our Hereford stock bull, was winner of silver medal for best Hereford bull of any age, at the Industrial Exhibition, 1884, and of the silver medal at the Grand Dominion and 40th Provincial Exhibition, 1885. P. O. and telegraph office at Innerkip. Farm is one mile from Innerkip Station, on C. P. R. (Ontario Division), and a short distance from Woodstock Station on the Canada Pacific and Grand Trunk Railways.

GREEN BROS., THE GLEN, INNERKIP.

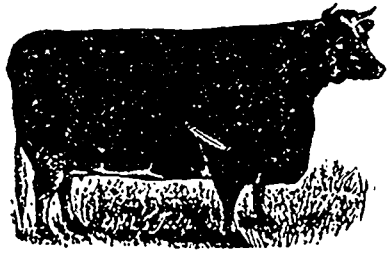
C. G. Charteris & Son,
 BEACHWOOD FARM CHATHAM, ONT.,
 BREEDERS OF
Pure SHORTHORN CATTLE
 The splendid young roan bull 10th Earl of Darlington, bred at "Belvoir," and possessing the blood of the Darlington, Oxford, Airdrie and other famous strains, at head of herd.
 Four bull calves for sale, sired by Crown Prince (12165) and Lord Byron (8821), and a few heifers, all registered in the new Dominion Herd Book.
 2 Miles from Chatham on the G. T. R.
 Nov-12

RUGBY FARM



J. S. WILLIAMS, Knowlton, P. Q.,
 BREEDER OF
Shorthorn Cattle and Berkshire Hogs
 Herd headed by the Bates bull Duke of Rugby, and bred with strict reference to individual merit and milking qualities. Animals recorded in both American and B. A. herd books.
 My Berkshires are of the choicest breeding—large size and grand individuals. For prices and other information, address as above
 Aug-7

BOW PARK HERD
 OF



PURE-BRED SHORTHORNS
 Have at all times a number of both sexes for sale. Catalogue of young bulls recently issued.
 ADDRESS, **JOHN HOPE, Manager,**
 my-y. Bow Park, Brantford, Ont.

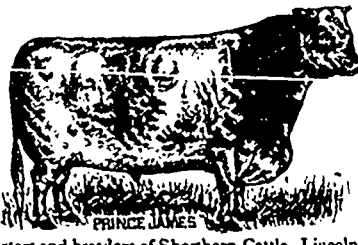
Colonus Stock Farm.
Shorthorn Cattle

of the highest breeding and individual merit, and
OXFORD DOWN SHEEP.
 Young stock for sale of both sexes.



WM. MURRAY,
 CHESTERFIELD, ONT.

JOHN FOTHERGILL & SONS,
 Burlington, Ont.



Importers and breeders of Shorthorn Cattle, Lincoln and Leicester sheep.
PRINCE JAMES,
 The highly-bred Shorthorn bull, winner of 3 silver medals, 8 diplomas, and 20 first prizes at the leading exhibitions in Ontario, at head of herd. A number of choice young bulls and heifers, sired by Prince James, for sale. Visitors welcome. Correspondence invited.

J. Y. REID, HILLSIDE, ONT.
 (2 1/2 miles south from Paris.)



BREEDER of Shorthorn Cattle, all registered in the new Dominion Herd Book. The highly bred Bates bull, 7th Earl of Darlington, bred at Bow Park, at head of herd. The herd is composed of a choice lot of young cows and heifers, all of the ROAN DUCHESS strain. Young stock at all times for sale. Apply to **James Geddle, Manager, PARIS, ONT**

MANCHESTER WHEAT.

Unexcelled in Quality, Productiveness and Hardiness.
PRICE \$5 00 PER BUSHEL. Freight prepaid to any railway station in Ontario. Bags Free. Also NIAGARA RED, TASMANIA, MARTIN'S AMBER, DEMOCRAT and all the leading varieties of wheat worthy of cultivation. PURE and CLEAN. Send for Catalogue. Address **JOHN S. PEARCE & CO.,** Seed Merchants, LONDON, ONT.
 Mention this Paper.

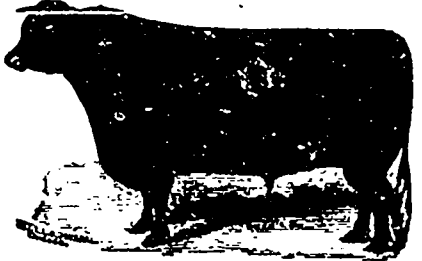
SHORTHORNS and SOUTHDOWN SHEEP FOR SALE.



A CHOICE LOT of young Cows and Heifers, in calf by the young Cruikshank bull Crim-on Lavender - 3493—, bred by Arthur Johnston, Greenwood, Ont., and some heifers and bull calves also from above bull and No. 1. All the above cattle eligible in the new herd book. Also a fine lot of yearling ewes and ewe lambs and yearling rams and ram lambs, and some older ewes, all bred from imported stock. Do not miss the chance if you want a ram, some ewes or some Shorthorns. Come and see us or write. Visitors welcome.

SETH HEACOCK, Oakland Farm, Kettleby P. O. Aurora Station, N. & N. W. R., 30 miles north of Toronto, shipping station.

MESSRS. J. & R. HUNTER, ALMA, ONT.



Importers and Breeders of SHORTHORN CATTLE. Clydesdale Horses and Shropshire Down Sheep. A good selection of young bulls, from 4 to 20 months old, including the pure Booth Commander-in-Chief—the others are mostly Booth blood—are now offered for sale.

TERMS REASONABLE. JAMES DEANS, Spruce Farm, Box 9, Paris Station P. O., Co. Brant, Ont., BREEDER OF SHORTHORN CATTLE



Two young bulls for sale, sired by Brigade Major -509-. Two miles west from Paris Station, on two of the G. T. R. Visitors met at the station.

FOR SALE.



VAUGHAN, Imported from Aberdeenshire, Scotland, two years old; solid color, dark red; has proved himself a sure sire, and considered by competent judges a model Shorthorn in every point.

THIS BRED by William Magor & Son, Whitevale, Ont., three years old, color, roan, will calve in October. Imported bull, Vaughan. A very large cow, suitable for raising heavy stock.

LADY MAY, Bred by J. D. McAvoy, Ontario, two years old, color, dark red, will calve in August, of a celebrated milking strain. The heifer has a fine appearance. All animals are registered in the Dominion Shorthorn Herd Book. Address, Jy-3 JOHN MCIN TOSH, Stellarton, Pictou Co., N. S.

"FEEDING ANIMALS." By Prof. E. W. STEWART.

THIS is a practical work upon the science of feeding in all its details, giving practical ration for all classes of farm animals. It is not only the best book upon this subject, but it is the only book giving careful details of rations and food values as applied to the feeding of all classes of stock. It will pay any body having a single horse or cow, or who feeds a few pigs or sheep, to buy it and study it carefully. No farmer can afford to be without it. Price, \$2, post paid, from this office, or will be sent to any person forwarding us four new subscribers to the JOURNAL for 1887. Address, STOCK JOURNAL CO., Hamilton, Ont.

LOWLANDS HERD

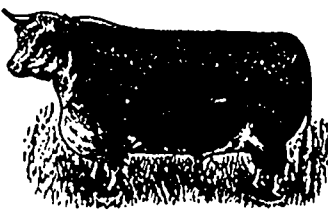


A CHOICE LOT OF YOUNG HEREFORD BULLS FOR SALE.

All eligible for or already entered in the "American Hereford Record." Amongst the sires of my herd are Auctioneer, Careful, Hayden Grove, Downton Boy, King Pippin, and Cassio. Also a fine lot of imported

Welsh and Shetland Ponies for Sale. E. W. JUDAH. "Lowlands," HILLHURST, P. Q.

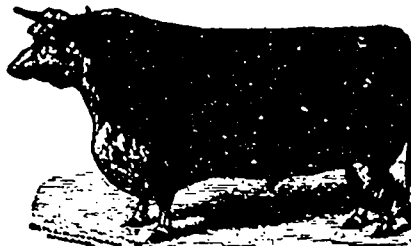
THE TUSHINGHAM HEREFORDS



THIS herd, grounded on selections from the best blood in England, is remarkable for the number and uniformity of the good calves that it has produced during the three years of its existence, owing in a great measure to the excellence of the stock bull Tushingham (8127), by Charity 3rd (6350), by The Grove 3rd (5051). Several young bulls of his get are held for sale.

J. W. M. VERNON, Waterville, P. Q. Tushingham House. WATERVILLE is on the main line of G. T. R., not far from the United States boundary.

POINT CARDINAL HERDS.

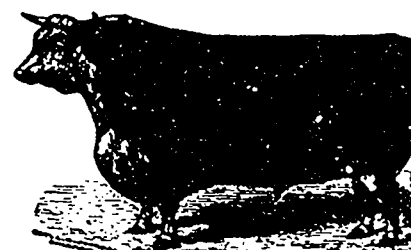


HEREFORDS Selected with great care from the celebrated herds in England. At the head of the herd stands the imported Marlow bull Rambler 6th (6630) 13514.

SHORTHORNS Heifers and bulls for sale, mostly sired by imported Duke of Hazelcote 68th, 65797. Also, a number of fine Hereford grade heifers and young bulls.

G. F. BENSON, Cardinal, Ont.

The Park Herd of Herefords,



THIS herd embraces over fifty head of choice animals. All registered. Catalogues sent on application.

F. A. FLEMING, Weston, Co. York, Ont. Farm, half a mile from C. P. R. and G. T. R. Stations, eight miles from Toronto.

100 PURE-BRED ABERDEEN-ANGUS CATTLE.



MOSSOM BOYD & CO., BIG ISLAND STOCK FARM, BOBCAYGEON, ONTARIO, CANADA.

Ericas, Prides, Windsors, Victorias, Sybils, Kinnochry Bluebells, Westertown Roses, Ballindalloch Coquettes, and Lady Fonnys, and animals of other good families, both male and female, for sale.

Bobcaygeon is in the County of Victoria, 90 miles east of Toronto and 20 miles east of Lindsay, and is reached from Toronto by the Midland Railway, a branch of the G. T. R., via Lindsay, with which the boat makes close connection. Telegraph and Post Office, Bobcaygeon.

JAMES GARDHOUSE & SONS,

MALTON, ONTARIO, CAN.

Beeders and importers of CLYDESDALE & SHIRE HORSES, Shorthorn Cattle and Berkshire Pigs. Young Stock for sale. Terms reasonable.

JAMES GARDHOUSE & SONS, MALTON STATION, Highfield P. O., Ont.



CLYDESDALES FOR SALE

ON REASONABLE TERMS.

NOT long arrived, a superior lot of Clydesdale Stallions, ranging from one to four years old, including gets of the celebrated sires Druid, Lord Kirkhill, McCammon, Lord Erskine, Newman, Belted Knight and Garnet Cross. Catalogues will be published shortly.

ROBERT BEITH & CO., Aug. 21, '86. BOWMANVILLE, ONT.

D. & O. SORBY,

GUELPH, ONT.

Breeders and Importers of Registered

Clydesdales.

Sixteen imported Clydes on hand, nearly all of them prize winners in Scotland, and of which four are stallions. The above are

FOR SALE,

along with a few Canadian bred. Visitors welcome.

THE NEW BOOK, by J. H. SANDERS, on "HORSE BREEDING," in which the general laws of heredity are exhaustively discussed and applied to the practical business of breeding horses, especially with reference to the selection of breeding stock, and the management of stallions, brood mares and young foals, will be sent to any address, post-paid, on receipt of publisher's price, \$2.00, or will be sent to any person forwarding us four new subscribers to the JOURNAL for 1887. Address, STOCK JOURNAL CO., Hamilton, Ont.

ALLEN'S SHORTHORN HISTORY

BY HON. L. F. ALLEN.

The only work of its kind in existence. FOR SALE AT THIS OFFICE. Price, \$3.00, post-paid, or will be sent to any one forwarding us five new subscribers to the JOURNAL for 1887.

Parties writing to advertisers will please mention the JOURNAL.

HEREFORDS FOR SALE.



30 Imported Yearling Hereford Heifers

Eligible for entry in American Herd Book, all of which have been bred during the past season. Will be sold from \$250 per head up.

ALSO A FEW CHOICE YEARLING BULLS

R. B. POPE, EASTVIEW, COOKSHIRE, P. Q.



GRAHAM BROS., CLAREMONT, ONT.

RESIDENCE ONE MILE FROM CLAREMONT STATION.

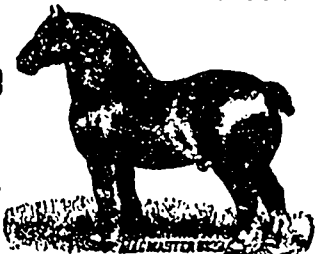
Importers of Registered

Clydesdale

STALLIONS AND MARES.

We have constantly on hand and

FOR SALE



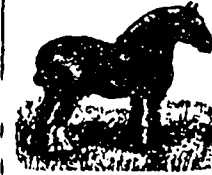
At reasonable terms, a number of superior Clydesdale stallions and mares, registered, and which have been selected from the most successful prize winners at the leading shows in Scotland. Also a few choice SHETLAND PONIES. Correspondence solicited, and visitors always welcome.

FOR SALE.

25 IMPORTED

CLYDESDALE

STALLIONS and MARES



3 Cleveland Bays, Shorthorn Cattle, Shropshire Sheep and Berkshire Pigs for sale at all times

at reasonable prices. Terms easy. Correspondence solicited. Our wagons are Claremont C P R and Pickering G T R., where visitors will be met by writing or telegraphing us at Brougham.

John Miller & Sons, Brougham, Ont.

COLDSTREAM STOCK FARM, Whitby, Ontario.

We have on hand and for sale a superior lot of imported and home bred Clydesdale Stallions



and mares. Several of them were prize winners at the leading shows in Scotland and Canada.

ALSO A FEW CHOICE SHETLANDS. Prices to suit the times.

Address, JEFFREY BROS., Whitby, Ont.

MOULTONDALE STOCK FARM.

FOR SALE



Pure-bred SUFFOLK and BERKSHIRE PIGS 6 weeks to 6 months old, at reasonable prices. Bred from imported stock. Address,

F. J. RAMSEY, Dunnville, (on G. T. Railway) Breeder Shorthorns, Berkshire and Suffolk Pigs. Imports 1 Bates bull Statira Duke 50528 at head of herd. 27 Stock won 143 prizes at three fairs this fall.

A. FRANK & SONS

Cheltenham Station, C P R R. The Grange P. O., Ont. BREEDERS OF

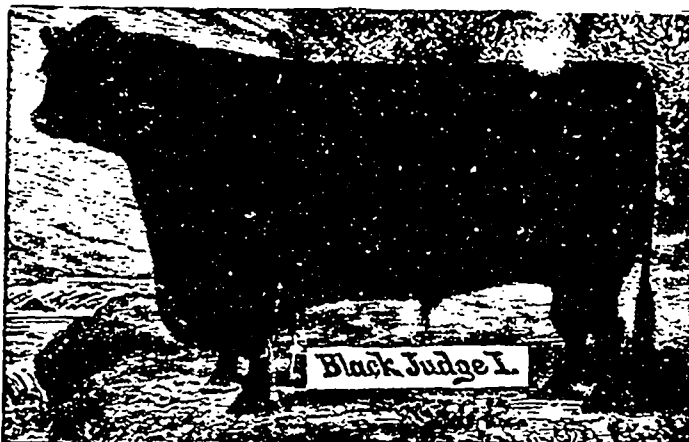
Thoroughbred Horses Shorthorns, Southdown Sheep of highest strain and pure-bred



SUFFOLK PIGS, all registered. Young stock of all the above for sale. All orders promptly attended to. A number of young Shorthorn Bulls for sale at moderate price.

CANADIAN HOME OF THE ABERDEEN ANGUS-POLL

UNCONQUERABLE



BLACK JUDGE

Black Judge 1.

First Prize Winner Toronto Industrial, 1883-1884-1885-1886. Grand Dominion and Provincial Medal and Diploma 1885. First, Medal and Diploma, best bull any age, Toronto Industrial 1885-1886. Service Fee, \$100.

KINNOUL PARK STOCK FARM, NEW LOWELL, ONTARIO, HAY & PATON, Proprietors.

WE beg to call the attention of our patrons and friends to the above splendid cut of our Champion Bull Black Judge 1, with his unapproachable record underneath. We have also much pleasure in saying that we have again taken all the leading Prizes and Honors at CANADA'S GREAT FAIR, of this year. Not once, since 1882, have we missed taking the coveted Medal and Diploma for the best herd of Aberdeen-Angus Polls, and the Medal and Diploma for best bull of any age have gone to Kinnoul Park no less than FIVE TIMES IN SUCCESSION. For four years running we have secured the first premium for cows, twice being first, second and third, once (in 1884) against a ring of fourteen of the best animals ever shown together in Canada, comprising choice herds from Messrs. J. H. Pope, Mossom Boyd, Geary Bros. and H. Walker & Sons.

We have confidence in asking intending purchasers to inspect our stock and prices before investing. We have some choicely bred Bulls and Bull calves which we will sell at prices ranging from \$100 to \$500, ACCORDING TO BREEDING AND QUALITY, and we shall have pleasure in sending to any address our Illustrated Descriptive Catalogues.

HILLHURST HERDS

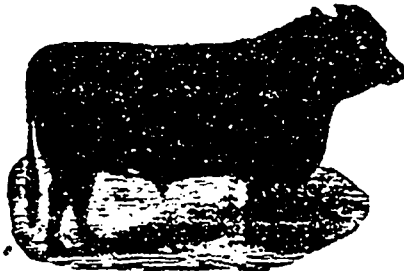
HEREFORD, ABERDEEN-ANGUS, SHORTHORN - AND - JERSEY CATTLE.



M. H. COCHRANE, Hillhurst, Que., Can.

KEILLOR LODGE STOCK FARM, THE GEARY BROS. CO'Y, Proprietors.

BLI BRO STOCK FARM, GEARY BROS., PROPRIETORS.



IMPORTERS AND BREEDERS OF POLLED ABERDEEN-ANGUS CATTLE AND ENGLISH SHIRE HORSES.

IMPORTERS AND BREEDERS OF Polled Aberdeen-Angus Cattle, Lincoln and Shropshire Down Sheep. Young stock, imported & home-bred, for sale.

Young Stock, Imported and Home-bred, for sale The Geary Bros. Co'y, Bothwell, Ont.

GEARY BROS., London, Ontario.