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THE JOURNAL OF AGRICULTURE. ILLUSTRATED

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NOTICE.—The subscription to the *Illustrated Journal of Agriculture*, for members of Agricultural and Horticultural Societies, as well as of Farmers Clubs, in the province of Quebec, is 30c annually, provided such subscription be forwarded through the secretaries of such societies.—EDITORIAL MATTER. All editorial matter should be addressed to J. R. Jenner Fust, No. 1 Kinkora Avenue, Dorchester Street West, Montreal—or to Ed. A. Barnard, Director of the *Journals of Agriculture*, &c., Quebec.

OFFICIAL PART.

Table of Contents.

Copy of the Report of a committee of the Hon. Legislative Council, dated March 20th, 1891, approved by the Lieutenant-Governor, 21st March 1891.

On the approval of certain resolutions of the Council of Agriculture.

The Hon Commissioner of Public Works, in a memorandum, dated the 20th March, 1891, recommends that the resolutions of the Council of Agriculture, a copy of which is annexed to the said memorandum, adopted by the said Council of Agriculture at its sessions of the 11th and 12th March current, be adopted in conformity with the regulations of the article 1614 of the revised statutes.

Certified. (Signed) GUSTAVE GRENIER,
Clerk of the Executive Council.

Deliberations of the Council of Agriculture of the Province of Quebec, at its Meeting of the 11th and 12th March 1891.

SESSION OF MARCH 11th.

The Council, under the presidency of the Hon. H. Joly de Lotbinière, met in the room No. 119 Parliament Buildings, Quebec, at 10 A. M.

Present: The Hon. MM. G. Ouimet and Sylvestre; MM. J. Pilon, vice president, S. N. Blackwood, A. and E. Casgrain, I. J. A. Marsan, J. Décarri, R. Ness, Ant. Rocheleau, M. Valois, C. N. Péloquin, Joseph Ricard, H. D. Moore, and J. I. Tarte, members of the Council.

M. J. A. Couture, V. S. of the Council of Agriculture, was also present.

M. Octave Ouellette, acted as secretary in place of Mr. Ed. Barnard, retained at home owing to serious illness.

The minutes of the Council, dated 29th and 30th October last, (1890), were read and approved.

The minutes of the Council dated 24th December last, (1890), were read and approved.

Proposed by Hon. G. Ouimet, seconded by Mr. H. D. Moore, that all the members of the Council shared in the general grief caused by the death of Monsignor Labelle, Deputy Commissioner of the Department of Agriculture and Colonisation;

That, in his person, Agriculture and Colonisation had lost a devoted friend, who had consecrated his life to the service of those two grand causes, and the Province, one of its most distinguished citizens, who contributed powerfully to the attraction of the attention of the whole world to Canada, to make known and appreciated our great resources, and to

assure us the aid of the capitalists of Europe in their development.

A letter was read from M. Eug. Guilbault, member of the Council, explaining the reason of his absence from this meeting.

A letter, dated 28th February last, was read from M. F. N. Ritchie, member of this council, giving in his resignation as a member of the Council of Agriculture.

A letter was read from Dr. Couture, V. S., inviting the members of the council to be present that evening at the examination of the pupils of the Veterinary school of Quebec; which invitation was accepted for that evening at 8.

In reply to a request from MM. J. Coulombe and A. Denis, asking that the date of the shearing of sheep might be advanced from the first of May (*sic*) as at present fixed by the regulations, to the first of March (*sic*):

It was resolved, on the motion of M. E. Casgrain, seconded by M. Robert Ness: that in future, "sheep intended for exhibition at the agricultural shows must be shorn clean on the first of April or subsequently."

In reply to the request of Mr. Thos. Kelly and others, farmers of the county of Megantic, that the limits between the agricultural societies of that county be fixed in accordance with the plan sent with this request. The question was referred to a committee composed of the Hon. S. Sylvestre, M. J. Marsan and H. Moore, who, after having heard the petitioners as well as the oppenents of the said request, reported to the counsel advising it to grant the request.

In consequence, it was resolved, that in future, the municipalities of South-Ireland and Coleraine, South-Thetford, North-Thetford, East-Leeds, Leeds, Inverness, North-Ireland, and Nelson, be comprised in the limits of the Agricultural Society No. 1 of the county of Megantic, and that the rest of the county form the territory of the Agricultural Society No. 2 of the county of Megantic.

Resolved: that these changes shall not take effect until after the 1st November next—1891—and that the secretary of the council shall then send to the parties interested such information as is necessary to assist them in organising the two societies on these new bases.

Noon having arrived, the council adjourned to enable the president to preside at the lottery between the agricultural societies for the six stallions to be supplied by the National Haras this year.

THE COUNCIL MET AGAIN AT 2 P. M.

The petition of Agricultural Society, No. 2 of Pontiac, having been considered, the secretary was instructed to draw the attention of this society to the rules of the council, and to warn them that they must conform to them.

In reply to a petition from Agricultural Society, No. 2, of Megantic, as well as to petitions from Témiscouata, Gaspé, No. 5, and Lotbinière, No. 1, the secretary received the same instructions.

In reply to a petition from M. N. Poirier and others, farmers of St. Félix de Valois, in Joliette county, praying that their parish might be detached from the territory of society No. 1 of the county of Joliette and annexed to that of society No. 2;

After having ascertained that notice had been duly given to the society No. 1, of the county of the said petition, and seeing that this society had not thought fit to oppose it; and considering also the consent of society No. 2, expressed in its resolution of December 24th, 1890; it was resolved that the prayer be granted.

A letter dated 1st December, 1890, was read from MM. E. Senécal and Sons, publishers of the *Journal of Agriculture*, declaring that they were ready to fulfil the conditions of their contract, as regards the number of lectures they were obliged to have delivered at their own expense, as well as all other conditions of the contract between them and the government.

The President communicated to the Council an account of the organisation of the Association of the Percheron Studbook of Canada, and announced that the president of the Council of Agriculture had been elected Honorary President of that association, and the Vice-President of the Council of Agriculture, one of its directors.

Resolved unanimously: that the best way of awakening the interest of our farmers in the direction of agricultural progress and to the increase the number of members of the societies, would be to distribute gratuitously the *Journal of Agriculture* to all the members of the said societies;

That the goverment be respectfully prayed to take this matter into its serious consideration, and that the Council trusts that measures will be taken necessary to insure a result so desirable in every way.

After having considered the petition of M. E. Jobin, the secretary was instructed to tell him in reply, that the council regrets not to be able to comply with his request.

The report of the Committee on Agricultural Schools, dated November 21st, 1890, as well as the replies made to that report by the directors of the said schools, were then read and discussed.

The said Report of the Committee on Schools was then adopted, on the motion of the Hon. S. Sylvestre, seconded by M. Rocheleau, in its form and tenor, and the committee was requested to visit the two schools, in the first week of April next, to see if it were possible to come to an understanding with the Directors of the schools, so that the recommendations of the Committee be put in force.

The Committee appointed in virtue of a resolution, No, 8, of the Deliberations of the Council of Agriculture, October, 29th and 30th, 1890, reported: that it met on the 10th of the present month, and that Drs McEachran and Couture submitted to it, as required by the Council, a report and two lists, containing the names of the veterinary surgeons whom they consider competent, in different degrees, to act in the examination of stallions before their entries to competition at the agricultural exhibitions.

After having maturely deliberated on this question, it was resolved: that in view of the absence of the necessary resources to organise a system of inspection as perfect as the Council desires, each society shall be permitted to select a veterinary surgeon for this inspection, on condition that their choice shall be approved beforehand by the Department of Agriculture. The said veterinaries are to be paid by the agricultural societies, and are not to receive more than $10.00 a day.

The Council adjourned at 6 P. M., to attend the examination at the Veterinary School.

SESSION OF THE 12TH. MARCH.

The same being present.

The resolution of the Committee on Agriculture of the Legislative Assembly, on *ensilage*, requesting the Council of Agriculture to take, with the concurrence of the agricultural societies, the steps necessary to encourage this great improvement in agriculture, was taken into consideration.

Resolved: that the Government be respectfully prayed to authorise this Council to appropriate the sum of $2,000.00 out of the balance of $5,000.00 voted by the legislature for the agricultural societies for the year 1891, '92; this sum to be distributed among the agricultural societies to be by

them offered as prizes to encourage the construction of silos in conformity with the instructions of the Department of Agriculture.

On the question of the admission to the Agricultural Schools of bursary pupils, selected and recommended by the agricultural societies of the Province of Quebec, the secretary of the Council of Agriculture is requested to send a circular to the agricultural societies explaining clearly all the formalities to be followed by them, to obtain for the young men they recommend admission to the Agricultural Schools.

Resolved: that the date at which the Herd-book shall be closed cannot at present be fixed; and that the book shall remain open until further order.

On a motion, proposed by M. Tarte, seconded by M. Rocheleau, it was resolved: That sheep and pigs may be registered in the pedigree-books opened by the Council of Agriculture, by the transmission of their pedigrees to the secretary who shall submit them to the commission on the Books of Pedigrees.

Resolved: To amend the regulation that obliges the agricultural societies that are desirous of purchasing or hiring breeding animals to obtain the consent of the Council of Agriculture, by substituting for this consent, that of the Commissioner of Agriculture.

Moved by Mr. Ness, seconded by M. Marsan, and resolved: That no agricultural society shall have a right to offer prizes for thoroughbred stock less in amount than those offered for crossbreds.

Resolved: that the effect of the clause forbidding for the future the offering of prizes in the cattle, sheep, and pig classes, for male breeding animals, unless they are thoroughbred and registered, be suspended for one year, as the societies did not receive notice of this new regulation in time.

For the same reason, it was resolved: that the regulation ordering the agricultural societies to offer prizes to those housewives who, from the same cow, during one year, shall have made the greatest quantity of butter or of its equivalent in milk, and the greatest net profit from their poultry, be suspended for one year.

Resolved: that the secretary write immediately to all the societies that have not yet sent in their programme, desiring them to do so at once.

Proposed by M. Rocheleau, seconded by the Hon. S. Sylvestre, and resolved: That every bursary-pupil of an agricultural school recognised and subsidised by this Council be required during his stay at the said school to milk at least three cows during at least a month, under pain of losing the right to his bursary; and that the Directors of the agricultural schools be required to enable all their pupils in turn to discharge this duty.

Resolved: That in the opinion of this Council clause 1116 of the Revised Statutes confer the right on every subscriber of one dollar to enjoy all the privileges of a member of the agricultural societies, except, as is reasonable, the entry to the Competition of the best cultivated farms, for which the regulations fix the additional amount to be paid.

In reply to the prayer of several agricultural societies, which have asked that the subscriptions exceeding $2.00 confer a right to the Government grant, for that excess; it was resolved: That the question was definitively settled by the Committee on Agriculture of the Legislative Assembly, which decided that any sum in excess of $2.00 be considered as purely a gift to the society.

The petition of the agricultural societies of the counties of L'Assomption, Laval, Joliette, No. 1, and Terrebonne, No. 1, praying to be allowed to hold a regional competition this year be referred to the Commissioner of Agriculture.

In reply to the agricultural societies of the agricultural region No. 3, which have prayed to be exempted this year from the competition of the best cultivated farms, it was resolved: That they are all obliged to hold this competition, which will prepare them for the Provincial Competition of Agricultural Merit, which will take place in their region next year.

Resolved. That the Council highly commends the action of Society No. 2, of Rimouski, in offering prizes for silos, and hopes that this example will be followed by other societies.

As to the request of the Rev. M. Parent, President of the Agricultural Society of the Saguenay, the President of the Council explained the reasons why the Hon. the Commissioner of Agriculture accorded to this society the payment of the grant of 1888, retained up to the present, and the Council highly approves of that action.

On the motion of Mr. Ness, the prayer of Dr. McEachran, that he be granted a salary like Dr. Couture receives, was referred to the President of the Council, with a request to report thereon at the next session of the council.

The Council decided that, in the absence of exact information on the subject, it cannot now pronounce on the request of M. Salagnard for a grant to assist him in making agricultural experiments, and in the manufacture of soft cheese.

Resolved: That the agricultural societies which buy or hire breeding-stock having a regular certificate of pedigree, are not obliged to have it revised beforehand by the veterinary surgeon and the secretary of the council when the necessity of that revision offers serious inconvenience, on account of distance or other hinderances, provided that the said certificates be perfect, and that their revision be made as soon as possible.

Resolved: that the President of the Council, assisted by the secretary be requested to revise the regulations of the Council that are now in force, before having them printed, to classify them so as to facilitate research, and to enter in them the modifications and additions made by the Council in this present session.

The Council adjourned at 12.20 P. M.

Certified true copy.

(Signed) Ed. A. Barnard,
Secretary.

The Provincial Competition of Agricultural Merit. Eastern Township Farms.

An erroneous idea has gone abroad that the Provincial Farm Competition, and in fact all County or Municipality Farm Competition, cannot suit such farms on hilly, broken, or stony ground as are common in the Eastern Township.

This is really a great error. All such competitions are meant to encourage farming which pays, whatever the circumstances or the nature of the soil may be. In all such cases, where farming is possible, it is so only because it can be made to pay. It then follows that whoever makes the most of his farm, from a paying stand point, is a model to be imitated and deserves full credit for his work.

The present Provincial Competition of Agricultural Merit, opened to the whole of the Eastern Townships this year, will we hope prove a great success. We shall be pleased to hear that the entries which must be sent to the Department of Agriculture at Quebec, before the 1st of May next, will be quite numerous.

The following letter from the President of the Council of Agriculture explains itself:

Department of Agriculture and Colonization,
Quebec 27th February 1891.

My dear Sir,—In case I should have omitted to send you the Report of the first Agricultural Competition, I now send it.

You will see that there is nothing to prevent dairy farms or stock farms from competing with the same chances of of success as grain farms. I will refer you, on that point, to the Judges, Report, on Trenholme's farm, No. 6, page 30 and on Nesbitt's, No. 7, page 34.

We look at the practical results—see page 5.

I hope that whenever opportunity offers, you will make that matter clear with those who will gladly listen to your advice,—and remain. Yours truly,

H. Joly de Lotbinière,
President of the Council of Agriculture.

The Department will gladly send to all who apply in writing a copy of the first year's report of Judges on the Provincial Competition of Agricultural Merit.

Ed. A. Barnard.

How to make the garden pay. (1)

It is again our good fortune to fall on another of T. Greiner's books. "How to grow onions" was shortly reviewed and commended in our March number. How to write agricultural books seems to be Mr. Greiner's specialty for a more interesting, practical, concise and thorough author is not to be found amongst our book acquaintances.

How to make the garden pay is—as far as we can judge a complete work. It is well printed, beautifully and bountifully illustrated. We can safely assert that all gardeners would find it greatly profitable to purchase this book, read it carefully, reread it and put in practice such advice as would suit their circumstances. This work, most readers will find, appears to be such a complete compendium of gardening —although a medium sized book—that most readers will find in it more information than they could actually expect from any such work. A glimpse at the heads of chapters gives a good idea of the system followed. The index is concise and complete:

Ch. I. Home Gardening.—Gardening for pleasure, health, profit and morality.
"Man shall not live by bread alone."

Ch. II. Market gardening and truck farming.—Gardening for profit only.
"To produce is one thing, to sell, another."

Ch III Farmers' kitchen garden.—Selection of locality and arrangement of beds.
"Well begun—half done."

Ch. IV. Requirement of success in market gardening, selection of soil and location.
"Look before you leap."

Ch. V. Hints in marketing. Secrets of success exposed.
"Doing the right thing at the right time."

Ch. VI, VII, VIII. Manures for the garden, I. Stable manure and how to manage it. II. Commercial fertilizers. Their value and use.
"Of nothing, nothing comes."—Prove all things; hold fast that which is good."

(1) By T. Greiner—Wm Henry Maule, publisher, Philadelphia, (1890). Price, $2.00.

III. Nitrates, wood ashes, and other specific fertilizers.
"Cheapest is what serves its purpose best."

Ch. IX. Garden implements, and how to use them.
"Only the best is good enough."

Ch. X. Cold frames.—Their construction and use.
"This is an art that mends nature."

Ch. XI. Manure hot-beds. Their construction and use.
"A little leaven leaveneth the whole lump."

Ch. XII. Fire hot beds and their construction.
"Nothing is denied to will directed labor."

Ch. XIII. Cold vegetable houses.—How to build and how to manage them.
"Make the most of it."

Ch. XIV. Forcing houses or pits. Simple, sensible structures, successfully managed.—Cost, construction, &c.
"What you do, do with your might."

Ch. XV. Early plants for the Home garden.—Various means and devices for everybody.
"A will, a way."

Ch. XVI. Drainage. Where needed and how done.
"The ability to overcome obstacles is a certain guarantee of success."

Ch. XVII.—Irrigation. Surface soaking and sub-earth flooding.
"More powerful than art is nature."

Ch. XVIII. Insects and other foes. Their ways of doing mischief and how to keep them in checks.
"Eternal Vigilance—the price."

Ch. XIX Fungus diseases of plants. How to prevent and cure them.
"An ounce of prevention is better than a pound of cure."

Ch. XX. Seeds and seed sowing. By machine and by hand.
"Good seed brings a glad harvest."

Ch. XXI. Novelties and why we test them.
"At our gates are all manner of pleasant fruits, new and old."

Ch. XXII. System and rotation of cropping.
"Gardener's, like woman's work, is never done."

Ch. XXIII. Weeds and how to manage them.
"A stroke in time saves nine."

Ch. XXIV. Thinning and Transplanting.
"Crowded—crippled."

Ch. XXV. Means of protection against drought and frost, simple and practical devices.
"Saving is earning."

Ch. XXVI. Hired help. Employment and treatment of labor.
"The laborer is worthy of his hire."

Ch. XXVII. Monthly memoranda, a chronological summary of the year's work.
"Doing the right thing at the right time—that is success."

Ch. XXVIII. Cultural directions. How the various crops of our gardens are grown most easily and profitably. Their leading varieties.
"Care brings crops."

Ch. XXIX. Strawberry culture. In the home and market garden.
"And it was called the Queen of fruits."

The lines which follow are taken from the author's very short preliminary remarks:

"While in the following pages I shall attempt to teach the

whole of the art, in the aspects that have been revealed to me during long years of practice, study and experiment, and propose to conform these instructions with the needs of the new beginner, both in the kitchen and market gardening, I am quite certain that even the experienced horticulturist can find new and valuable suggestions in it, and it will pay all —novice and expert—to look over these pages carefully. Any one of my readers who thus far has remained in the old ruts, let him turn over a new leaf and try the newer ways that I point out; for gardening, like life, is what you yourself make of it, a paradise of pleasure or a veritable sheol of drudgery. You have the decision in your own hands. You may leisurely accompany your visitors through the well kept grounds which are beaming with thrifty, sparking vegetation, as your own countenance is beaming with pleasure and satisfaction, and that is as free from weeds as your face is free from care, or you crawl through the beds on hands and knees, piling up stacks of weeds, with a face sour and distorted in hatred of yourself and the life you are leading. My instructions, if faithfully followed, will insure you the former conditions, and save you from the curse of the latter."

We are sure that whoever is interested in gardening and knows what he is about, will have judged from the perusal of the above summary of chapters, &c., that he cannot afford to be any longer without such a work. Our advice then will be: get this book, read it, study it out, and put in practice all you can in order "to make the garden pay."

Ed. A. Barnard.

Beefing vs Butter making.—Swamp hay for ensilage, &c.

The following correspondence is worth considering. Our friend proposes to milk his cows and fatten them in summer for the Montreal market. His reasons for not making butter in summer have weight, but, in his stead, we should simply send the milk to the butter factory near by, or to the cheese factory, and raise some Jersey-Canadian stock. He is a business man, well versed in the choice of stock and may perhaps do better than we could in purchasing milch-cows for butter and for fattening. This is a sort of business which we would rather leave to others than follow ourselves. However the the questions involved are worth full consideration and discussion and therefore we should be happy to have the matter fully ventilated in the Journal:

You have done well in your purchase of swamp hay,—12 tons for $5.00! Fools are still plentiful—but wise men, to take advantage as you have done, are still too scarce.

Such hay when finely cut up and mixed for 24 hours in advance with ensilage, cotton seed meal or any other substitute for bran—should produce an abundance of fine butter,—provided not over 3-lbs. of cotton seed meal be given per day. My friend should put you in the way of getting a part of a car load—the Seminary and others taking the balance. Have you communicated with Mineapolis, Min.—for bran by the car load? Mr. Dallaire proposed doing it. They deliver at a fixed rate at any station.—(I have found out since that we had better deal with Canadian millers.)

Begin at once mixing dry cut feed with green feed also cut—in advance, and mixed with richer provender. Even 20—lbs. of ensilage per day per cow would suffice to heat up the rest of the feed.

Have you read my paper, in the—March No. of the Journal, on the feeding of milch cows? Of course, in your case, with plenty of coarse provender, corn meal will replace bran. Which of cotton seed or corn is the cheaper is the question. I say cotton, by all odds—

Well, in your stead, I would not fatten. The butchers can get plenty of beef at low prices whilst gilt edge butter from a swell maker is still a delicacy.—My cows milk from calf to calf and I would no more think of beefing them than of swimming under the ice.—One pound of butter for 20 lbs. milk or less—should be your aim. You can buy in rear of Joliette or Montcalm Counties really excellent [butter] cows, of the French breed for perhaps $25.00 and much less in the fall. Feed high before they fall milking. Select young, even very young cows—and go ahead with a Jersey bull, breeding the very best butter makers in the world.

Remember that the food required to make a lb. of fat beef can give you very near a lb. of rich butter. When the butter is sold you have obtained twice the value of beef and yet the cow is yours still—ready for more butter. Let the poor old thing go for soup beef when she is tired of life—and refuses to give 250 lbs. of butter a year. Do not part with her any sooner, please. Very truly yours.

(Signed) Ed. A. Barnard.

To the above our friend answers as follows:

I have at last got all my $5 hay in: such a job as I had. I have close on 1800 bundles in all in two stacks—besides *two big double loads I put in the silo. You are undoubtedly* right in what you say about the cows and I would not fatten if I could keep them but, at any rate for the present, I am not in a position to keep a butter herd the year round—my farm is not rich enough to do so—another reason is that the man who takes my butter won't take it from the middle of June to 1st Oct. as the people he sells to go out of town during the summer so that for the summer months I am not sure of the sale of the butter—another reason is that I have to make the butter myself and it takes up too much of my time, so that I have to neglect the fruit and vegetables, both of which pay quite as well as butter, that is they bring in more money but give more bother. It costs me just about as much to feed my cows in summer as in winter and the difference in the price of butter is 5c. During the summer I can sell from $300 to $400 fruit and vegetables. Now my idea is to keep only a couple of cows during the summer to give milk and cream for the house and devote all my time to the fruit and vegetables, and then in the winter fill up the stable and make butter. Of course always keeping the best cows. What I want more than anything is manure and I think this is about the cheapest way I can get it.—I went over to see D... the other evening and had a very pleasant chat. He has promised to come and see me.—He asked me to go and speak for him at the next meeting at St-R...but I am afraid of my French. My silo is filled and I have only covered one side as I must commence to use the other at once. I had not sufficient corn and second crop clover to fill up with, so I used poor swamp hay and *ferns*. After I get down into it a little way I will send a sample to the Rev. M. Choquette and ask him to analyse it: the cattle eat it well. It took longer to heat up than either corn or clover—it is a good deal dryer. If it turns out to be worth anything, it ought to be a good way for those who have low meadows to secure their crop during a wet season when they could not dry their hay without carting it to higher land.

I covered my silo this year with about 1 foot to 18 inches of cut marsh hay and then put between 2 and 3 feet long marsh hay on top: no boards, no paper. I was in hope you might have found time to stop over here. There are several things I should like to talk about. (1)

Here is our reply: Hay is now so low, and ensilage so convenient, that you might keep more stock all the year round with profit. You can rent, it strikes me, a little more land

(1) Many thanks for the very kind invitation we receive but we are here overcrowded with work. E. A. B.

and grow all your green stuff at home, for summer feeding. Then with ensilage, cotton seed meal and cheap feed, either malt germs or bran, keep 10 or 12 excellent milkers the year round. You might also arrange it so as to have the cows come in about September, thus having but little milk to work in the busy months. ED. A. BARNARD.

Notice To Agricultural Societies respecting the distribution of the stallions of the National Breeding Stud (Haras National) amongst the societies

In accordance with a vote of the Legislature, last session, the Government has entered into an agreement with the *Haras National* Company, by which the latter undertake to supply, each year, for five years, for the improvement of the breed in rural districts, six thorough-breed stallions to the agricultural societies to be designated as hereinafter explained.

Each horse to be brought to the Agricultural Society by an employée of the owners at their own cost and to be cared for by the owners and to remain the whole time at their own ri k Each service not to cost more than $4.00 for the season, and such sum to belong to the Company.

There shall be one stallion for each district, created for agricultural merit, each of these districts being placed on the same footing; each agricultural society in each district shall draw lots, in each year, to decide which of them shall have the stallion.

The drawing of lots shall take place on the second Wednesday of March in each year, at noon, in the Department of Agriculture, under the direction of the Commissioner of Agriculture or of some other person appointed by him to represent him.

The Commissioner or his representative shall draw lots for the societies which do not send delegates and such representative shall, until further order, be the Hon. Mr. Joly de Lotbiniere, President of the Council of Agriculture.

Every delegate shall be provided with a certificate from the president or secretary of the society which he is appointed to represent, defining his powers.

The sixth stallion shall be at the disposal of the five districts each year, in their turn, commencing with district No. 1, with the understanding that the drawing of lots between the societies of the same district shall take place for the sixth stallion in the same manner as for the others and at the same time when it shall be the turn of the district to obtain the sixth stallion, so that the five districts shall have each had two stallions, during the five years.

It is understood that the society, favored by lot, shall be excluded from the drawing in the following years for the five years or for the number of years remaining.

The six societies indicated by lot shall each send a representative to the national breeding stud, at Outremont, the second Wednesday in April of each year, at twelve o'clock, to select from the six stallions—every dispute on the question being settled by drawing lots—this representative shall be the bearer of a resolution of the society accrediting him.

When the six stallions are selected at the *haras*, the owners shall deliver to the representative of each society a certificate from a veterinary surgeon that the horse handed over to such society is sound and suitable for breeding.

(By order) S. SYLVESTRE,

Secretary Department of Agriculture and Colonization.

Single or double boarded silos,—which? How covered?

My experience, for many years back—I think I was the first to mention or favor wooden silos—is in favor of a double boarded silo, made of the commonest boards and filled with dry earth between. The two feet at the base are thoroughly mixed with quick lime to exclude rats, snakes etc—Such a silo remains air tight no matter how much the boards may crack; it is proof against frost and heat and should rats bore holes, they are pretty sure to be covered in by dry earth which never packs very hard. I call it the cheapest and best.

Respecting rat holes in the beaten earth floor,—I cannot see what harm would be the outcome, as very little air could come in from such holes, unless they communicate immediately with the outside surface. A rat hole on the side of the silo is more to be feared, as the ensilage could not fill up such hole as easily as it would in the bottom.

Before filling, we examine carefully the bottom and sides, then give a few knocks all round inside, so as to fill up any vacant space between boards and the silo is then ready.

Respecting the covering, I still hold to the advantage of six or eight inches of dry earth over the boards, which makes an air tight covering and secures the farmer against all waste of feeding material, let it be marsh hay, straw etc,—All such is fit food for stock when well prepared, and mixed with richer foods.

ED. A. BARNARD.

Carter's prize prolific barley.

In February, 1890, the Government of Canada on recommendation of the Hon. the Minister of Agriculture, made provision for the importation of 10,000 bushels of two-rowed barley from England, to be sold to farmers in Canada for seed. This was imported in 5,000 bags of 112 lbs. each, the "Prize Prolific" being the variety chosen for the purpose, and this barley was offered at the cost of importation, $4 per bag, the Government paying freight charges to the nearest railway station to the purchaser. By this arrangement farmers in every part of the Dominion obtained the barley at a uniform price, but one bag only was available to each individual. This restriction was made at the outset so as to secure a wide distribution for the grain, and prevent a too rapid exhaustion of the stock, so that applicants from distant portions of the Dominion might not be disappointed. This limitation lessened the sales, and as soon as it was ascertained that the barley on hand would be more than sufficient to meet the demand on the basis of one bag only for each purchaser, the restriction was withdrawn. About 3,200 bags were sold to 2,600 purchasers, leaving nearly 1,800 bags on hand.

I am now instructed to offer the remaining stock at three dollars per bag, freight prepaid to the nearest railway station to the purchaser, with no restrictions as to the number of bags which any individual may buy. All orders must be accompanied by a remittance sufficient to cover the amount of the order. The applications will be entered as received and the orders filled in rotation as long as the stock holds out.

The germinating power of this barley has been tested from ten samples taken from different bags, the average vitality is 90 per cent, and the growth strong.

All communications should be addressed to the undersigned.

WM. SAUNDERS,
Director Experimental Farms.

Ottawa, February 6th, 1891.

Extract of the Report of Mr. Bousquet manager of the Banque du Peuple laid before the Shareholders at their last annual meeting.

EDITORIAL NOTE.

The attention of the farmers of this Province is specially drawn to that part of the Report where Mr. Bousquet shows that the Province of Ontario furnishes to the City of Montreal for its *local consumption* for meat alone over six times more than all the farmers of the Province of Quebec.

H. JOLY DE LOTBINIÈRE.

"The business failures of the year were governed to a great extent by the following causes. In looking back for the prominent and controlling causes of the unsatisfactory character of the year's business, we observe: The severe and extraordinary pressure in the money market throughout the year; the shrinkage in grain values, as well as the imprecedentedly low prices of hay, and more notably, the adoption in October last by the United States Congress of a new tariff by which it was found by our neighbors that amongst other things to be protected were their agricultural interests. To attain their purpose they have increased duties on foreign produce to such an extent as to render their market prohibitive to foreign produce, thereby affecting one of the most important branches of our foreign export, by virtually closing their door to our agricultural produce. Its coming into effect at the season where our farmers for years past had found a ready market at their door, always favorably disposed to buy all surplus production, has been sudden, unforeseen and disastrous.

Depending in early spring on their usual market, farmers unfortunately had raised produce in those expectations, to be suddenly deprived of it, and thus it has upset their calculations, and involved great losses to them.

The consequences have been that most of their agricultural produce now lies in their barns, which were already overloaded with the crop of 1889, especially in hay, with no demand for it, and no prices. In fact, prices for hay do not realise to farmers above the cost of marketing. Hence, the depreciation in farm value, the poverty of farmers, and their inability to meet interest due on mortgages. A great number being unable to effect new loans in order to carry them temporarily have been severely tried and many have succumbed under the pressure.

The first set-back in business then originated with the country storekeepers, who depend entirely for activity on farmers' returns, and from them it spread to the community. This accounts for the numerous failures, the great falling off in the wholesale trade, the complaints of bad collections from the rural district and the stagnancy and depression that now prevails in business. The inability to effect the sale of our crop has deprived the country of millions of dollars and lowered our purchasing power to that extent, and it also accounts for the scarcity of money.

THE AGRICULTURAL SITUATION.

We must admit that the new United States tariff, known as the McKinley Bill, has to a certain extent temporarily disturbed our trade relations, and that it has given rise to a crisis in our entire agricultural community. In order to calculate to what extent will fall the blow received by our agricultural community, and in order to measure its effects upon production, consumption, mercantile activity, it is necessary to look over the list of produce exported and its value. The value of the exports in agricultural produce by the Dominion in 1889 to the States, according to the Government statistics, has been nine millions and a quarter. Out of that amount the Province of Ontario comes in for a very larger proportion. For instance, their exports in barley and eggs amounted in that year to pretty near 8,000,000. Hay from the Province has been the most important item, figuring in the exports to an amount of 6,000,000. Therefore, taking for granted that the United States tariff renders their market prohibitive to our farm produce, the disturbance in our agricultural exports for the Dominion will be nine millions and a quarter, each Province taking its share. The agricultural community of the Province of Quebec, for its share will then be deprived of an outlet in its produce, to the extent of at most $1,000,000, $600,000 of which is accounted for by the hay export. Now, supposing that the McKinley Bill put an end to hay raising in this Province the question that arises is, what is to be done by our farmers to parry the evil and to make up for the loss of a market which for years past had been a source of revenue to them?

WHAT MUST BE DONE?

The opportunities offered and the chances left to our farmers to recuperate the loss of that market are numerous. First, to relieve them from their present alarming state new methods of producing have to be adopted at once to supply the wants of other countries, and unless we can quickly effect a change in our mode of farming, and not later than this spring, the chances are that disagreeable consequences will follow. The agricultural interest, like all other producing power, is apt to make mistakes, and over production bears as disastrous consequences to them as it does to any manufacturing interest. For instance, hay raising has been overdone for two or three years past in this province. The consequences have been that a great surplus exists with no demand for it, explaining, therefore, the shrinkage in its value. The farmers should then regulate their production by the wants of the local consuming power first; and then adapt all surplus of production to the wants of the most profitable and suitable foreign markets. To depend on foreign markets for the sale of the bulk of their production, and to neglect local wants has seemed to be our way of doing in this province.

I cannot too severely blame the neglect of our domestic market by farmers, for the domestic want is of far greater importance in its relation to the condition of the people and to the prosperity of the province. For the purpose of showing at a glance the great advantages and benefit that can be derived from our local markets by farmers adapting their mode of farming to its wants, the table below will furnish a graphic illustration, as accurate as possible, *of the most important items of farmers' produce for which the city of Montreal had to provide for its consumption during the year, indicating also where its supplies came from:—*

ONTARIO.

	Number.			Weight lbs.	Av'ge price.	Av'ge Amount
Buchers' cattle....	57,580	800	to	1,100	$4.00	$2,303,000
Live hogs	30,300	200	to	310	5.00	378,000
Dressed hogs	105,935	100	to	175	6.50	964,000
						$3,645,000

QUEBEC.

Butchers' cattle....	12,200	500	to	1 000	$4.00	$ 366.000
Live hogs	7.480	150	to	225	5.00	71,000
Sheep.....	25,946	75	to	125	6.00	155.000
						$ 592,000

Thus the city of Montreal has to provide outside of this province for eighty-five per cent (85 p. c) of its meat consumption and the amount paid for it reaches over $3,645,000. Why should we not keep that money in this Province? Why should we deprive our farming interests, trade and industries, of such an amount, to the benefit and advantage of other provinces? Farmers have just lost a market for their hay of $600,000 to $800,000 a year. Here is an opportunity offered to compensate for that loss, and of far greater importance to them and to our local general trade.

The raising of hogs is carried on in Upper Canada with considerable profit and it becoming an important feature with their farming, in fact, the impulse lately given to it has been such that in one year they have supplanted American hogs in the Montreal market. In 1889, 49,000 hogs from the United States were imported into Montreal, while in 1890 hardly any have been seen. Who can deny the ability of our farmers to raise hogs and cattle, in order to supply the wants of the city? As for all surplus of production, England will offer a ready market if our farmers care to familiarize themselves with the conditions and requirements of the English market.

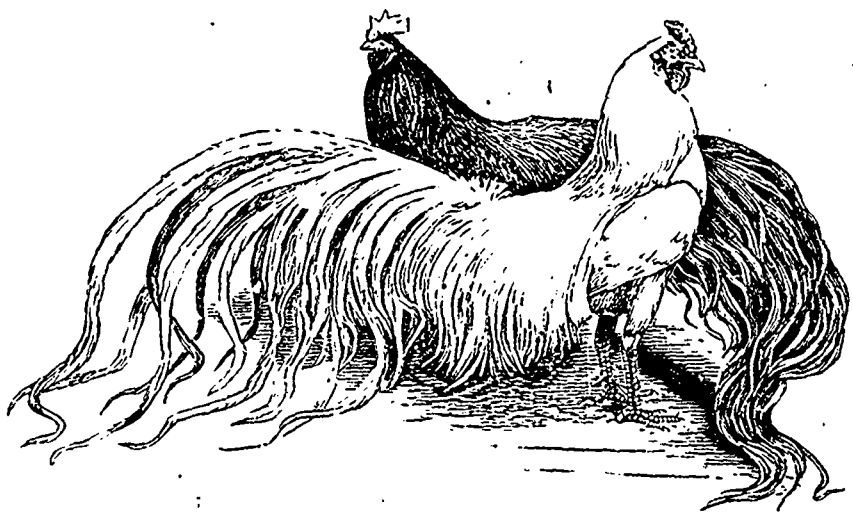
It is of service to refer to these matters here, because of their bearing upon the future. The remedy to our stagnancy in business to a great extent lies in the hands of our farmers, and to comment upon the salient points of agriculture with regard to our prosperity in trade is a duty of every business man. Mixed farming has often been advocated, and this mode of culture will have to be accepted in order to save our farmers from their alarming state. There exists a shrinkage in our present mode of culture, and farming is not properly attended to in this province. It is certainly this that ails the agricultural interest, and it is because of that the commercial interest has been disturbed.

EXPERIMENTAL DAIRY STATIONS.

This memorandum is submitted as outlining the plan which I would propose for the establishment of branch Experimental Dairy Stations in the several provinces of the Dominion.

THE NEED.

The magnitude of the dairy interests of Canada is unequalled by any other single branch of agriculture or manufacture in the Dominion. The success of the cheese trade in Ontario and Quebec has been satisfactory to the farmers. The other provinces, in many respects, are as well adapted for the prosecution of this industry, but a little outside encouragement is needed to set it going in them.



JAPANESE GAME FOWL.

The cattle trade of the Dominion is assuming large proportions, and the probabilities are that in the coming years this trade will assume still large proportions. The table of our exports below will offer a comparison, and will demonstrate that we do not take our share in this important item of revenue to farmers, and that proper attention should be directed to it.

		Weight lbs.		
Export cattle—				
From the North-West	8,300	1,000	to	1,300
From Ontario.....	112,336	900	to	1,400
From Quebec, Eastern Townships.....	2,500	1,100	to	1,400
Export sheep				
From Ontario.....	42,172	130	to	200
From Quebec.....	1,200	100	to	130

Dairy products from their great demand on foreign markets assure an outlet for all we can raise, and in that direction a movement of progress seems to have been made; but a great deal more remains to be done and a closer attention should be given to the work.

Then the milk from cows in Quebec is different in quality from milk in Ontario. Investigations into the best methods of carrying on the business in each of the Provinces would furnish valuable guidance for the dairymen of each. As an instance of the need of this, let me refer to the experience of one brief trip to the Saguenay district last summer. One cheese-maker drove 60 miles to receive one day's instruction from me at a factory at Ha Ha Bay. His patrons reported afterwards that the cheese from his factory sold for one cent per pound relatively higher than they did before. A branch Experimental Dairy Station could be visited at least once a year by large numbers of cheese-makers.

Then the instructors of the cheese makers in the several provinces would acquire uniformity in their methods, from having the privilege of visiting these stations. That would do away with the differing qualities and the names—as "On-

tario Cheese," "French Cheese," and give us a better reputation for uniformly fine "Canadian Cheese."

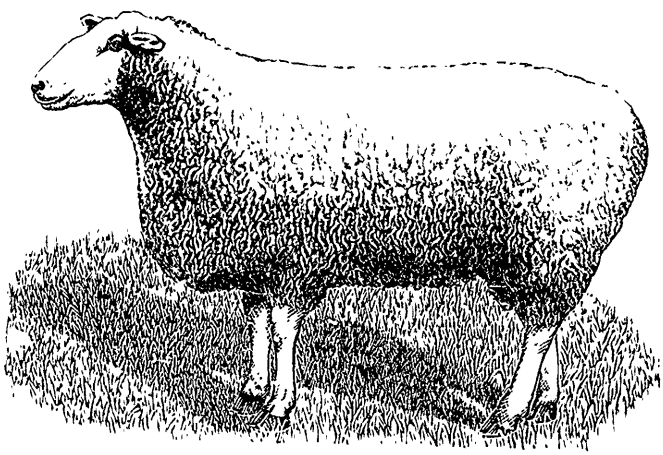
Then the manufacture of small, fancy varieties of cheese, which are in great demand in England—as well as in home markets— could be introduced into Canada through these experiment stations. A few trial shipments of these to foreign markets would furnish useful data for the guidance of dairymen and the promotion of trade.

No endeavor will be made or should be made to displace the cheese industry, by a butter one. Our country is exceptionally well fitted for the production of cheese during the summer, even if not so well situated as many other competitive countries for the production of butter for export during that season. It is impossible to develop the butter making industry during the winter months to a great magnitude, and with more remunerative profits to agriculturists than arise from summer dairying. The possibilities of cheap and suitable winter feed by the use of ensilage have been well and satisfactorily demonstrated. In the winter season, the average price of butter is almost twice as much as during the summer. Safe transportation can be economically provided for during the cold weather.

New, small and fancy varieties of cheese would be made.

Investigations under the direction of the Dairy Commissioner would be made; and some of the cheese would be brought to the curing room in the dairy building at the experimental farm to prosecute enquiries into the causes of bad flavor in cheese, which is becoming a menace to the success of the trade in recent years.

Butter would be made at the stations, particularly during the winter, for us as already indicated,—viz, to promote winter dairying among farmers and to facilitate the getting a foreign demand at high prices for Canadian butter.



First-prize Border-Leicester Ram.

The buyers in England hardly know what fresh made Canadian creamery butter is like. The quantities exported are often stale before they reach the consumer. That fact led the members of the Dominion Dairy Convention in Ottawa last year to pass a resolution urging upon the Government the desirability of making a provision of at least $5,000 for the purpose of making weekly shipments with a view to opening up this trade.

The Danish Government supervised the shipments of butter for a considerable period, and one of the Australian Government gives bonuses now to promote shipments.

These branch Experimental Dairy Stations would encourage the farmers to furnish milk during the winter season, and also provide small quantities of finest butter to be used as trial shipments for introducing fresh-trade creamery butter to foreign markets.

Butter has been carried by the Canadian Pacific Railway across our continent to Asiatic markets, and Canadians ought to be able to supply those markets.

The West Indies offer many markets that might be secured to Canadians by the making of new trial shipments in specially adapted packages. The publishing of the results of these would furnish valuable commercial data and the enterprise of commerce would do the rest.

Branch Dairy Experimental Stations should be organized in the several provinces for the stimulation and guidance of dairy farmers. Through them it would be practible to spread acceptable information as to the best practices. Everyone would be welcome to visit and learn. Frequent publications of bulletins on the results of experiments would keep them before the public, and that within a few months from their establishment.

At the Colonial and Indian Exhibition in 1886 I had charge of over $10,000 worth of butter and cheese sent there by the Provincial Government of Ontario. The fresh-made creamery butter was sold to take the place of Danish butter, and during intervening years I have had enquiries for such butter from importers, who state that they will pay the Danish price for quality similar to what they received then.

I would suggest that suitable cheese factories or creamery buildings be rented by the year in the several provinces. A guarantee by the Dairy Commissioner would be given to the farmers who furnished milk, that they would receive for it a price equal to or slightly higher than the average price realized from neighboring factories.

A sum of 1,500 for the running expenses of each station and to provide for probable losses in trial shipments of butter would be sufficient to cover the expenditure; an extra sum of $500, for each station for apparatus and fittings, would be required the first year. The location of the experiment stations need not be permanent in one district in any province. After serving one district for a year or two the station could be transferred to another; and after several years work, if the

stations had fully served the purpose of their existence, they could be discontinued, and the plant in each could be disposed of.

The Imperial Parliament gives a grant of £5,000 sterling for the support of similar stations and instruction.

Recent occurences that have interfered with commerce have directed the attention of farmers to the possibilities of making farming pay better by new methods and the acquisition of new markets. The time is ripe for leading the farmers in the right direction.

These stations would be very useful and exceedingly popular with the agricultural cheeses. If provision is made for their establishment, no effort will be spared to make them realize more than has been set forth in this brief memorandum.

I have discussed the plan and its advantages with Professor Saunders, Director of Dominion Experimental Farms, and he approves of the proposals. JAS. W. ROBERTSON.
Dairy Commissioner.

MAINTAINING FERTILITY.

We call attention to an extract from Professor Robertson's able address to Manitoba, which we give below. Many farmers in this Province must admit that the soil does not produce even one third of what it gave after the first croppings, when the soil was new. And yet a great many are not prepared to save all the fertility contained in the solid and liquid manure from their stalls, much less do they admit the necessity of maintaining fertility by exporting just such produce only as butter—which carries away with it no element of fertility, or by purchasing fertilizers, or what is better, purchasing low priced foods containing an abundance of fertilizing material, such as cotton seed meal, bran &c., which, if well fed, to produce milk, meat, &c., give a money return far superior to their cost, and yet leave fertilizers, in the shape of manure, worth much more even than the cost of such food.

We hope the time has passed, when amongst the well to do farmers of this province public speakers on agriculture will be supported in such errors as we heard some years ago. Let it be remembered that phosphoric acid, or bone forming material, potash, nitrogen and lime are costly materials, to be found in all crops grown, and that what is exported of such crops makes the farm by so much the poorer. It follows also that all produce of the farm, be it live stock, or the produce of live stock, grain, roots &c.—containing as they all do—without exception, such fertilizing materials, carry away by exportation from the farm a notable quantity of such fertilizers—and make the farm poorer to the exact amount which such fertilizers would cost to replace.

ED. A. BARNARD.

Some men may be disposed to pooh-pooh my advice, when I say that the farmers of Manitoba ought to give heed to their way of farming lest they exhaust even the bountiful store of fertility which nature has left in their soil. It is an incredibly large bank account which cannot in time be exhausted by the repeated and frequent "chequing" of a prodigal who never makes a deposit. Meanwhile, many fields begin to evidence the need of a dressing of barn-yard manure, and when they receive it, give a profitable account of the treatment. At a meeting in Portage la Prairie the other evening, Mr. Glennie, from the Portage Plains, which are not reported to be the least fertile of all the lands in Manitoba, said he had put a heavy dressing of barn-yard manure on one of his fields last winter. He is a careful, observant man, a farmer with practical experience in Ontario, and is doing well on his farm. He said that the wheat on that field ripened some eight days earlier than the other wheat on his farm. All risk of damage by frost was avoided and a heavier and better crop was harvested. It will pay the farmers of Manitoba to begin in good time to conserve the wonderfully productive power of their land, by keeping large numbers of stock and putting back upon the fields the barn-yard manure. As it is better in old age to have a character and constitution that have not been wrecked or wasted by the dissipations of early folly and vice, so is it better in the maturer years of a country's agriculture to have soil that has never been "broken-hearted" by continuous grain-growing and grain-selling, than to have it robbed of its elements of fertility without any effort at restoration.

T. E. Vasey, Sulphate of Ammonia,
P. O. Box 1777, Works Hochelaga.

Montreal, March 25th 1891.

ARTHUR R. JENNER FUST, ESQ.,
1 Kinkora Avenue, City.

Dear Sir,—Replying to your enquiry for price of Sulphate of Ammonia. My present price is 3¼c. net cash s. o. r. Montreal for small lots of not less than 1 barrel of 300 lbs., but for quantities I would make a special rate. I guarantee N H 3 = 25 %, and it tests from about 25¼ % to 25½ %.

Yours faithfully, T. E. VASEY.

The above letter from Mr. Vasey will, I hope, be found interesting to many of my readers. At the price, for quantities, which we may take to be 3 cents a pound if a ton is ordered, nitrogen will cost 14½ cents a pound at the outside. In England nitrogen, in sulphate of ammonia, is selling for 13½ cents, so we have, at last, this most valuable fertiliser at a reasonable price.

This, at the rate of 125 lbs. per acre, added to 300 lbs. of Capelton plain superphosphate, will cost $5.55, or $26 a ton, and will be found far better for all practical purposes than the mixtures that are sold at from $32 to $40 a ton. (See March number, p. 50.)

Again; sulphate of ammonia, 150 lbs.	$4.50
200 lbs. bone-meal.....	3.00
	$7.50

should give as good a crop of swedes as 15 tons of farmyard manure, and the grain-crop afterwards would be good.

A. R. J. F.

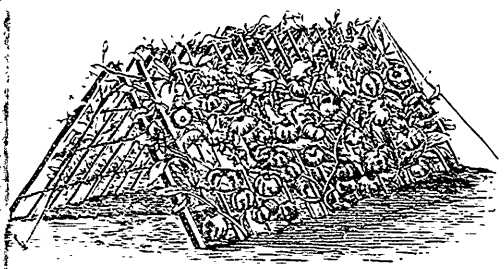
Japanese Game Fowl.

The engraving (reproduced from a large and handsome plate in Harper's Weekly of Feb. 7) shows one of the rarer varieties of poultry displayed at the exhibition of the New-York Poultry & Pigeon Association, which closed last week—one of "the Japanese long-tailed breeds, generally known as the Shinotawaro, or Phœnix, and the Yakohama Games. These birds" [says the writer of the accompanying article] "are remarkable for the length of their tail feathers, which trail on the ground, and often measure two to three feet when a year old." Our contemporary adds:

"As a rule, the general public are inclined to look upon chickens, ducks, geese and pigeons as lacking in interest and scientific or economic value. Gradually, however, a different view is being taken, and an enormous increase of attention is surely fastening itself upon our feathered domestic friends.

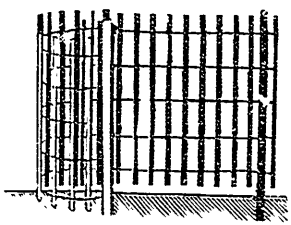
Not only are the farmer, breeder and fancier doing their utmost to further their interests in this direction, but there is a sure progress toward the evolution of what may be aptly called the "amateur" breeder. Inter urban life close beside our great cities has so largely increased of late years—and is still growing every day—that opportunity to cultivate a closer acquaintance and friendship with all the domestic animals has become to an army of people a part of their daily existence."

Our New Garden Trellis can be used for all kinds of crop that require support by staking, whether vegetables or flowers, so that it can never come amiss in the smallest garden. The Double Trellis is shown as used for tomatoes, but it can be used to nearly equal advantage in growing cucumbers, squashes, Lima and other pole beans. The Single Trellis is used



DOUBLE TOMATO-TRELLIS.

mainly for peas, and it will be found on trial to be far ahead of the old plan of using brush or string. For flowering plants that require support, it is, of course, equally valuable, as it can be used exactly in the same way, according to the nature of the plant, as for vegetables, in short, for any plants that require support, we earnestly advise the use of these Trellises. It is substantially formed of galvanized wire, and light, yet



PEA TRELLIS OR FENCE.

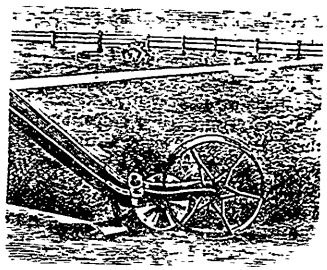
strong wood work; and as it can be rolled up so as to occupy small space, it can, with ordinary care, be used annually for many years. Supplied in ten foot and twenty foot lengths.

	Per Running Foot.	Per 100 Running Feet.
Pea Trellis, 4 feet high	10c	7c per foot
" 3 "	8c	6c "
Tomato Trellis, single, upright	10c	8c "
Tomato Trellis, 4 feet high, double. See cut	20c	11c "

50 Feet Supplied at 100 Foot Rate.

The "Planet Jr." New Grass Edger.

A cheap, handy and effective Grass Edger is a treasure, and here it is; one with which you can in an hour edge beautifully the walks and the *flower and shrub beds* of an ordinary half acre lawn. Think of it; why, in the usual way, it would take a day. This perfect little tool does either *straight or curved* work most accurately, edging at the desired angle. The operator being quite a distance behind the working part of the tool, can readily detect and rectify irregular or crooked spots in the edges, and once made true, the after work consists only in keeping the establishment line exact.



NEW GRASS EDGER.

For heavy work, the frame forms a pocket, just the proper size to carry a brick, which gives the needed additional weight for effectual service.

Strawberry growers will find it also a rapid and perfect tool for cutting off surplus runners. For this work the hoe may be removed.

By removing the wheel the hoe may be used alone with great satisfaction in the vegetable garden, first cutting away from the crop, and then returning the earth. Price, $4.00

The illustration (reëngraved for the *Country Gentleman* from a lithographed plate issued by the North-British Agriculturist) shows a remarkably fine Border-Leicester shearling ram which has won important prizes for his owner, Arthur J. Balfour, M. P., chief secretary for Ireland, Whittinghame, Prestonkirk, Scotland.

OUR ENGRAVINGS.

Canadian phosphate mine.—I was surprised to see that only 23,000 tons of our apatite, so rich in phosphoric acid, were exported last year. This quantity would not manure more than about 230,000 acres.

Imported French Coach Stallion.—For a full description of this stamp of horse, I cannot do better than refer my readers to p 147. of the October No. of the Journal.

Shorthorn Heifer, Josephine 2nd.—This superb heifer, the best animal exhibited at any of the English shows this last year, is of Scotch extraction, though of course descended from the old Collings' stock Rather a Shorthorn year this, seeing that this breed has won: 1. Champion plate at the Smithfield club; 2 Elkington Challenge plate at Birmingham; 3. Champion plate at Norwich; 4. Beat all England at the Dairy-show in London; 5. Per-centage of meat to carcase at Chicago.

Swine-feeding—In Bulletin No. 54, Mr. Shaw, of the Agricultural College Guelph, relates a series of experiments on the feeding of pigs, entitled "Corn ensilage and roots as Food-factors in Swine-feeding.

The animals selected were grade Berkshires; three in a group, two males and one female. I should have been glad to know if the three sows had been spayed or not, for a sow when seeking the boar is very apt to lose flesh.

The meal for these pigs was a mixture of 1 part each of oats, barley, and wheat, and 2 parts of pease, ground up together, worth ⅞ of a cent a pound. The roots were valued at 8 cents a bushel and the ensilage at $2.50 a ton. Eight cents a bushel for roots is equal to about $4.00 a ton, which seems to me high for consuming price. I think $2.00 would be ample for the ensilage, and $2.50 for the roots.

No. 1 group had only meal—average 15½ lbs. a day;
No. 2 had 20 lbs. of roots and 5½ lbs. of meal;
No. 3 had 15 lbs. of silage and 5½ lbs. of meal a day;
} apiece, I presume.

The pigs on roots drank very little water; those on silage only chewed it, rejecting a large proportion of it, just as I have seen them treat tares many a time. The meal was sprinkled on the silage, so I fancy a good deal of the former was wasted. The results are:

1. That it pays the farmer handsomely to fatten store pigs in winter on a meal ration such as that used in this experiment, when the prices of food and pork bear the same relation to each other.

2. That it does not pay the farmer sufficiently well for the trouble to feed store pigs on a ration of roots in winter when the meal ration used is a small percentage of the whole ration.

3. That when store pigs are fed in winter on corn ensilage and a meal ration, which is but a small percentage of the whole ration, they are fed at a loss.

4. That it will pay better to use a meal ration in winter that will ripen store pigs for market in 77 days, than to first use a ration which tends mainly to develop bone and muscle during that period, followed by a meal ration that will ripen them for market in 41 days.

5. That in fattening pigs it is a serious mistake to attempt to hasten the process by giving any more food than will be eaten clean when it is given. A. R. J. F.

The Richmond Sod Cutter.

This machine is meeting with high endorsement among railway men and others, and has proved to be a *great success*. It will enable you to beautify your station grounds, parks and lawns at a low minimum of cost.

This new implement cuts the sod of uniform width and thickness, in any length, so that it is particularly adapted to giving solidity to slopes in cuts and on embankments, working equally well on level or uneven surface, cutting both ways with the land and leaving no sod uncut. Being light of draft, easily managed, strong, neat and durable, warrants us in making this recommendation.

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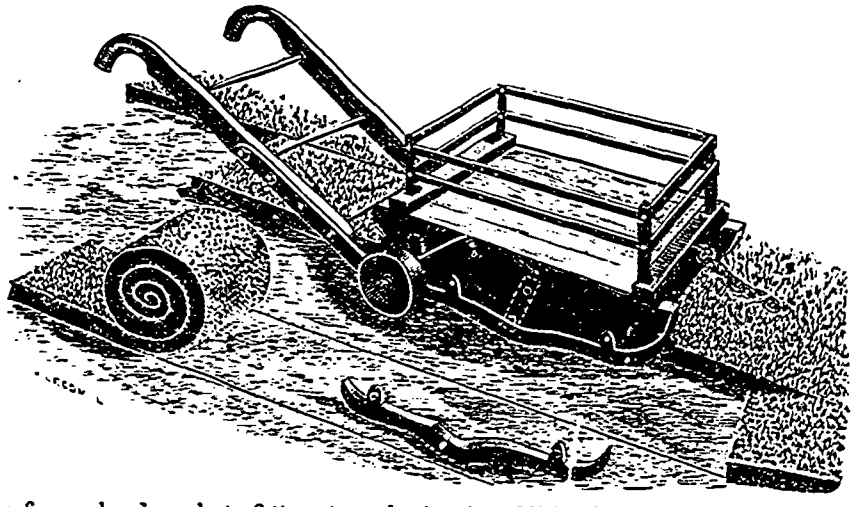


An additional discount to dealers. For terms, please write to the Richmond Sod Cutter Co., Richmond Ind.

Ontario Agricultural College, Farm Department.
Guelph, Feb. 11th, 1891.

A. R. J. FUST, ESQ.,

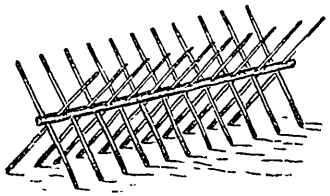
Dear Sir,—Please pardon me for not replying sooner to your kind letter of Jan. 2nd. I have not been very long returned from the lecture-tour of the institutes.

Am glad to know that you are pleased with the experiments that we are making in reference to the culture and use of rape. Thanks for your suggestion in regard to feeding it by folding. There are a few difficulties in the way of doing this successfully, I think; but we mean to experiment with it when the time comes again. Thanking you for your kind wishes I am yours truly, THOMAS SHAW.

ANSWER.

Dear Sir,—The engraving annexed will show the best form of hurdle for folding sheep or rape. If the sheep are given to jumping, the best way to stop them is to run an iron

wire along the tops of the hurdles: this will throw them back, and they will soon tire of trying the dodge.



The *bar* is of 4-inch pine, ten feet long, and the transverse pieces—6 inches apart—are of inch stuff, morticed.

One and only one difficulty I found in using this form of hurdle: the sheep try to creep out at the corners of the fold. To obviate this two or three bars might be fixed, on cleats or otherwise, but with full grown sheep or large lambs little bother of this kind will ensue. Very truly yours,

JENNER FUST.

In the month of October last, the Company of the Haras National, obtained from the government of the Province of Quebec, an annual grant of $6000, which had been previously voted to be granted to a National Stud Company for the improvement of breeds of horses throughout this province.

The Company at present own nothing but Percherons and French Coachers. They have nothing specially adapted for the improvement of the lighter breeds. I think that most breeders would not consider it desirable to put a French Canadian pony mare of from 13 to 14 hands to a Percheron Stallion.

The old French Canadian horse, is almost extinct, but there are still, on the French-Canadian farms throughout the province, a considerable number of ponies of all sizes from 13.2 to 14.2 in height. These ponies make good drivers in light traps, but are quite unsuited to the saddle. When these pony mares are put to the right sort of Stallion, the produce, is almost always a pony or cob, showing quality, and good riding shoulders. Ponies and cobs of this description, if good for saddle or harness, and handsome in appearance sell exceedingly well in the United States, notwithstanding the McKinly Tariff. A friend of mine, owns at the present moment in Montreal, a 13.3 pony, by a small thoroughbred horse out of a French-Canadian pony mare.

Though so small, she has in miniature all the ranginess, and the delightfully smooth action of a thoroughbred under the saddle. The owner of this pony mare has twice refused offers of $500, 100 guineas, from American purchasers. Captain Campbell, late of St. Hilaire, now living in Hampshire, Eng. wrote to me some time ago, that cobs and ponies, if nearly thoroughbred, and with good riding shoulders, sold for almost any money in England.

It seems to me that it would be a great benefit to the French Canadian farmers of the Province of Quebec, as well as to all others who own these French-Canadian ponies, if a few stallions, of the right kind, were acquired by this company, in order to effect an improvement in this class of horseflesh and to enable the owners of it to breed it to the best advantage.

As this company calls itself a national institution, and is supported by a government grant, it would not be out of place if it were to keep a few stallions specially adapted to the improvement of the lighter breeds of horses, such as they are to be found in French-Canadian farms, as well as of the heavier breeds.

What are wanted for the purpose, are Barb, Anglo-Arab, or undersized, but well shaped and sound thoroughbred stallions. Yours truly, C. F. B.

I do not think Arab stallions would improve our Canadian ponies as the shoulders of the former are generally heavy (1) It is not necessary to employ "undersized" sires, as the size of the fœtus is regulated by the size of the dam.

A. R. J. F.

"Bleury," Ste. Thérèse.

Dear Sir,—Thank you very much for accepting my brief suggestion for the improvement of French Canadian ponies in Canada, and the nice way in which you have written to me about it. I know that you have an uphill task in writing up agriculture and everything connected with it in this country. I do not know much about farming, but I am anxious to learn, and I have the taste for it and would rather indulge in it than in any other occupation that I know of. The breeding of stock is the only thing in connection with farming, that I know anything about and of course that is the attraction for me. I make this my home all the year round, and only regret that I cannot do the same thing in England that I am doing here: I keep a thoroughbred stallion, and a few brood-mares, and try to breed a few colts every year. I try to get my brood mares as well bred as possible, provided that they are strong enough to do my farm-work (some of my ploughing is very stiff clay), and I may say, that the handiest mare I have for all kinds of farm work, ploughing especially, is the mare with most thoroughbred blood in her. But she is 16.2, on short legs, with very good bone and substance. I do not breed cobs or ponies myself, but as there are so many French Canadian ponies knocking about the country, it seems to me that a few proper stallions distributed about the country, could not fail to effect a wonderful improvement in these animals of cob and pony size, in a few years. Of course, if bred of the right sort, they would be worth instead of from $50 to $80 a piece, anything from $150 to $500, according to action, amount of quality &c., &c.

I mentioned 3 kinds of Stallions for this purpose, last and least a small thoroughbred stallion, because that kind of animal could be more easily and cheaply procured, either from England, or the States, not because I think that he would be better than a *pure* Arab or Barb.

A *pure* Arab, standing not less than 14.3, has the loveliest shoulders in the world, quite equal to any thoroughbred, and girths, and measures more below the knee, in proportion to his height, than a thoroughbred horse of 16 hands. His head, which must be seen to be appreciated, is seldom if ever approached in beauty by a few strains only in the thoroughbred, his hind quarters are so beautifully shaped and his tail is put on in such a manner as to make these quite distinctive traits in this breed. Then, last but not least, he is by a long way, the *soundest* horse in the *world*, and he is also the gentlest and most intelligent As size, or rather increased size, would not be the object aimed at, but a uniform height of 14 2, or 14.3 hands, cob size, and a uniform standard of handsome shape with as much quality as possible, and as my suggestion is not to try to breed *horses* out of these French Canadian pony mares, but animals of the same size, only much handsomer in appearance, and better shaped in every particular, equally fit for riding and driving; the objection against the Arab, on account of his want of size, would not apply.

(1) They used to be. But it is years since I have seen an Arab. Those sent to William IV, by the *Imaun of Muscat*, had *very* heavy shoulders.

The great objection would be the enormous cost of a *pure* Arab Stallion. Last autumn the French government offered a private party in England, $4,500 for a little 14.2 hand Arab horse 19 years old, and that, because he was known to be *pure*, but the offer was refused. It is a mistake to suppose that Sir Wilfrid Blunt, Miss Etheldred Dillon, Rev. B. Vidal, are, or were the only champions of the Arab, in England, or the only people, who know something or all about him in England. Mr. Henry Chaplin has the highest opinion of Arab blood, and is anxious to see a fresh infusion of it into the English thoroughbred. The Earl of Bradford, Master of the Horse, under Gladstone, bought a pure Arab mare from Blunt in 1884, and put her to the thoroughbred horse Chippendale. The produce was the colt, Solyman, a winner at Newmarket last July. Of course for racing purpose the Arab is not in it, as compared with the thoroughbred, and the amount of abuse he gets from the professional trainers and breeders, is various and wonderful. It is quite bad enough that he is at a mechanical disadvantage, compared to the longer striding thoroughbred on account of his diminutive stature, without imputing to him faults which he does not deserve, or not giving him credit for the good qualities he undoubtedly possesses. A great many people, have either never seen a thoroughbred Arab, at all, or derived their impressions from the specimens of mongrel Arab, that they have seen, which are horses of quite a different colour. This is a long digression, but to come back again to the ponies, anything like pure blood in the Arab line is, I am afraid, quite too expensive for a national and patriotic (??) Co. to indulge in for the benefit of us poor farmers. Lord Harrington, who breeds hunters for his own use, being an M. F. H. and also cobs and ponies, and who has been quite successful, in both instances, says that he uses Barb stallions (for the cobs and ponies of course), put to Exmoor pony mares, that they have very good shoulders and that they get them in their produce even when the mares are defective in this respect. Hence he values them very highly and prefers them for this purpose. I have not had time to hunt up his letter in the Field about it.

I consider that the English thoroughbred race horse, the *fons et origo* of all quality in all the other breeds of horses except those for heavy draught, has been deteriorating for some time, in other respects besides soundness, of which there can be no doubt. Whether a more judicious system of breeding fewer and better horses, from the existing best and soundest strains, will effect that improvement, or whether at some future date, a fresh recourse to Arab blood will be resorted to, remains to be seen. I have always thought that for the province of Quebec, taking everything into consideration, a Suffolk Punch of the old Stamp, (1) not exceeding 15 2 in height, would have been the most suitable horse, for farmers to breed to, for agricultural purposes, properly so called.

Excuse this long scribble. Yours truly,

March 1st 1891. C. F. BOUTHILLIER.

Farm Gleanings.

BRITISH COLUMBIA CROPS.—Mr. John Oliver, of Boundary Bay, finished his threshing tour at Langley some time ago. During the ten weeks he was engaged in the work, he threshed in all 1,200 tons of wheat, oats and barley. Mr. Oliver reports a very good crop all over the district, and the grain in every instance was saved in splendid condition. Wheat averaged from 40 to 60 bushels to the acre, oats from 60 to 70, according to locality and soil. The heaviest crops were obtained on the flat lands. He considers the farmers should go more heavily into barley growing, as it is a very profitable crop.—*Columbian.*

Now, this would go to show that Mr. Oliver threshed 120 tons of grain a week = 20 tons a day, including time lost in moving from barn to barn, &c.

Taking 36 bushels of wheat, 50 bushels of oats, and 44 bushels of barley, to weigh, respectively, a ton, the mixed grain would probably run 43 bushels to a ton, and the threshing must have been carried on at the rate of 860 bushels a day!!!

Forty-five quarters (8 bushels) of wheat, 50 of barley, and 60 of oats, are a good day's work for our best English 8 horse-power steam threshing-machine. May I be excused if I say that the *Columbian* must have dreamed all this?

A. R. J. F.

EDITOR "JOURNAL OF AGRICULTURE"

I enclose a couple of clippings from the "Field Farm & Stockman" which I think will be of some interest to many of your readers. If we want this Province to take a high place among the butter makers the sooner we commence to test milk sent to the creameries the sooner we shall reach that place. —I know of many patrons of creameries who are at present very far from being satisfied with the returns they receive for their milk, and consider it hard lines they should be called upon to help to support the farmer who is too mean and stingy to feed his cows properly.

If a change is not soon made it is not very difficult to see what the result will be.—Those who are now sending rich milk will stop at home and make their own butter or ship their milk to the nearest town where good milk will always find a ready sale and poor milk not up to standard cannot be sold.—Then those who are now sending poor milk will be so disgusted with their returns that they also will give up sending.—Therefore, if the Creamery men want to keep their business, I think they will find that it will pay them to commence at once to refuse to take milk below a fixed standard and let the standard be high. He may lose a few patrons to commence with, so he will have a little work but he will make a better piece of butter.—Besides those that do continue with him will receive so much better returns that they will be encouraged to increase their stock so that the creamery will before long be the gainer.

As the creamery business is worked at present I consider it nothing more or less than the means of giving premiums to those who keep the poorest kind of stock, fed in the poorest and cheapest manner, and am therefore not surprised that this Province has such a poor name for butter.— "FARMER"

What shall the small dairyman do with his milk?

In answer to this question Mr. C. P. Goodrich says in the Dairy column:

"If it were not for one thing I should say, 'Patronize the creamery.' This 'one thing' is the fact that the creamery man persists in crediting the patron only with the weight of milk delivered, regardless of the amount of butter it contains, notwithstanding there are tests by which it is practicable to determine the per cent of butter fat. This state of things is destined, if it continues, to work incalculable injury to the dairy industry of the country for it is a constant inducement for patrons of creameries to breed and feed cows so as to produce the largest possible quantity of milk, regardless of qua-

(1) I too. A. R. J. F.

lity. It offers a bounty to the man who can succeed in getting the most water into his milk without violating—that is, by running it through his cow.

That it does have this effect is already apparent in many cases. I know of a number of instances where creameries were started a few years ago in districts where men had been breeding butter breeds of cows, and the first year the per cent. of butter to the 100 pounds of milk was remarkably high, but the per cent. has each year fallen till now it is very low. Patrons are disposing of their rich-milking, high-grade Jersey herds that it has taken them years of care and selection to build up, and replacing them with cows that may give a little more but very poorer milk. The consequence is that the yield of butter per cow for the whole district has sensibly fallen off. The fact is well established that all profitable butter cows have a high per cent. of butter fat in their milk.

The strife of the patrons by each one trying to send the thinnest milk is resulting in loss to the district, taken as a whole, and if continued will result ruinously to our herds of dairy cows, to the dairyman, and lastly, to the creamery man.

THE REMEDY.

Now, it will be asked. "What are you going to do about it?" The creameryman says it is too much work and expense to do the testing and the consequent extra book-keeping. He thinks it is of no interest to him so long as he now gets his regular four cents a pound for making all the butter and he will do it, for it matters not to him how the money is divided. It seems to me that the remedy is very simple. It lies entirely with the patrons. Let any considerable number of them combine and firmly, demand the testing, and I believe it will be done. If it is not done, then let them withold their milk and make it into good butter—such as the market demands—and they will be the gainers by it. Now, I do not believe that I am advising anything that will injure the creameryman. I do not wish to. On the other hand, I believe it will be for his benefit, for it will greatly increase his patronage. I know of a great many private dairymen who had herds of butter cows and who are good feeders, who would gladly patronize the creamery if they could be sure of getting credit for the full amount of butter their milk contains. "But," says the creameryman, "those who gets smaller dividends will do some terrible kicking." Let them kick. Let them withold their milk if they choose. They will soon find that they cannot get anything out of their milk beyond what it contains, and will soon return and bring better milk from better fed cows.

Now, as to whether the patron or the creameryman shall be to their expense of the testing, that is just as the parties can agree on that matter. I believe it will pay either party to pay the expense. I remember, many years ago, when I used to sell beef cattle at Fort Atkinson, I had to pay for the weighing or let them go for what the buyer guessed they would weigh. I choose to pay for weighing. Now-a-days the buyer chooses to weigh. It gives better satisfaction. So it will be some day with the creamerymen testing milk.

Importance of testing milk in the creameries.

Through the Bureau of Dairy Information, Mr. C. P. Goodrich relates an instance to illustrate the importance of testing milk to determine the amount of butter fat it contains, and paying for it accordingly.

I have a friend who has been for many years a private dairyman. He has gradually, by intelligent breeding and feeding, and with an eye solely to butter production, built up a splendid herd of butter cows. He has made money enough in dairying to enable him to buy a much larger farm than he before owned, and located near a creamery, which he commenced to patronize a few months ago.

Not long since he told me he was not satisfied at all with the returns he got from the creamery. "Why," said he, "during the months of June and July I got forty-five cents a 100 for my milk. About four pounds to the 100, average of about fifteen cents a pound, and four cents out for making does it you see. Now, the milk of my cows will make six pounds to the 100—I know it because it has done that for some years, and, besides, I kept it at home one week in June and it did it then. I know they say the separator can get more out of milk than I can, but I can get that. As to price, I have always got as much as, and usually more than, the best creamery But of fifteen cents six pounds is ninety cents, just double what I got. Now, I can't stand that. To keep the cows—feed, care for, and milk them, and carry the milk to the factory, and then give half to have the butter made is too much for me.

I don't know what to do. I have no conveniences in making butter on this farm, and I don't want to be at the expense of $200 or $300 for fitting them up. Besides, my wife has always made the butter, and I don't suppose we could hire anybody to make it as good as she can.

I have got to do something different, and I have about made up my mind that I must let my splendid butter cows go—I hate to terribly—it has taken me years to get them—and get some others that will give more milk, no matter whether there is much butter in it or not. May be I'll get "Holsteins."

Then turning to me he said, "What shall I do?" My reply was, I will give you advice only on one point; that is, "stick to your butter cows, for by the time you get fairly changed around you will want them back again, because the creamerymen will soon be compelled to test the milk and give credit for the butter fat it contains or quit the business."

Butter-Making Briefly Described

Following is summary of an address by a good authority, our correspondent Mr. John Gould of Ohio, delivered at the recent farmers' institute at Delhi, N. Y.:

There is a call for only one kind of butter—the best. Yet there are more than 200 varieties sold in the market. Every lady who makes butter leaves a photographe of herself upon it, a reflection of her skill. There are only five simple rules to be observed, to succeed. The man is just as responsible for the quality of butter made as is the woman. When the milk comes into the house the butter is half made. Flavor of butter is not dependent much upon feed. You cannot feed flavor into a cow's butter fat. Any food a cow can digest and assimilate does not effect the flavor of her butter. Market flavor is artificial—the result of acidity. Milk and feed regularly. Have stables so constructed that there will be no odors in them. A man who will allow odors in his stables is an odorous farmer. You cannot feed richness into a cow's milk, so do not feed a poor cow. Get milk into the pans as soon as possible after it is drawn from the cows. The best creamery today is an 8-inch shot gun tin can placed in another can of water, and which any tinner can make. All the money you pay more than that for a creamery is lost to you and goes into the pockets of some potent-right man. Milk diluted one-third with water, and set at 90°, set in shot-gun cans placed in water at 60°, is the best creamery ever divised. Three-fourths of a pound of butter in every 100 pounds of milk will be lost if the milk is allowed to fall 25° before setting it.

Skim milk before it sours. Four hours before you can detect acidity in milk cream ceases to rise, no matter how much there yet remains in it. Aroma is developed by acidity, and that acidity is lactic acid, acting upon the butter fats.

What shall we churn in? In a revolving churn. Churning is simply to wear out the buttermilk, and give the butter globules a chance to get together. You cannot break butter globules. Then use some revolving or swing churn without floats inside of it. Do not work butter on a worker nor salt it there. Wash it when the granules are small, and salt in the churn. When washed perfectly free from buttermilk, and all the water has run out that will, then with a paddle evenly distribute the butter in the churn, then make a brine of two quarts of water and a quart of salt, the water having been boiled, pour in just enough of this to cover the bottom, not float it; work the butter about a little with a fork to allow the brine to permeate it, after which put on the cover of the churn, and in a few revolutions work the butter into small balls or lumps, which dip out and immediately pack for market. That is all of it. Do not pack butter for fancy marketing in pails holding more than 6 lbs., nor with more than 12 per cent. of moisture in it. More than that the merchant will charge you for. Do not send any more butter to market in balls. Have the man churn, and the lady pack the butter.

3. S. asks if the quality of a cow's milk can be improved by feeding. We have proved thas it can. In several instances have added from 50 to 75 per cent. to the butter yield after four and five years old. But this improvement is gradual, requiring from one to three years. Some will improve very rapidly up to their normal standard, and very slowly beyond. Some dairymen feed their cows so sparingly that they never reach their normal standard. Such cows, in the hands of a good feeder, may be greatly developed; but, as a rule, it is better to buy cows already develped, and then keep them at a high standard. E. W. S.

NON-OFFICIAL PART.

Buyers Are Very Exacting And Particular.

Butter buyers every where are now very exacting and particular about Butter; and refuse to look at butter of a whitish or lard color, knowing well that such Butter is only suited for cooking purposes. Such Butter, as a matter of course, cannot command a profitable price.

Butter buyers are always urging strongly upon Butter makers the great necessity of keeping a uniform color throughout the year. This can be accomplished by using the Wells, Richardson & Co's Improved Butter Color, which never injures the Butter, and always gives it a perfectly natural golden tint.

Strict attention to cleanliness, good cream, the use of Wells, Richardson & Co's Improved Butter Color, and churning with a temperature of about sixty two degrees, will produce a rich and delicious Butter of a golden tint, which must command top prices in any market. A pale, white color always detracts half the value of Butter, as it cannot prove pleasing to the eye. The Wells, Richardson & Co's Improved Butter Color never turns red, or rancid, but always tends to preserve and improve the Butter.

Butter makers will do well to avoid other makes of coloring now sold, as many of them give a disagreable odor to the Butter, many turn rancid, and spoil the entire lot of Butter. Everywhere, Dairymen are using the Wells, Richardson & Co's Improved Butter Color, and declare it to be the most satisfactory and only trustworthy. All assert that the Improved Butter Color assimilates beautifully with the Butter, and produces a tint that always satisfies the most fastidious buyers and consumers.

Are You Ready?

There is an old saying that "there is nothing sure in life except death and taxes," but the saying loses its force when Salzer's seeds are included among the uncertainties. They never die, and only need a trial to prove themselves. John A. Salzer, La Crosse, Wis., is the largest grower of Northern Grown Seeds, and makes a specialty of farm seeds. wheat, corn, oats, and potatoes. An illustrated catalogue contains full information regarding rare plants, flowers, fine vegetables, &c., with several colored plates, mailed for 5 cents, or further information can be had by refereuce to advertisements of Salzer which are appearing in our columns.

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AN OLD AND WELL-TRIED REMEDY.—Mrs. Winslow's Soothing Syrup has been used for over fifty years by millions of mothers for their children while teething, with perfect success. It soothes the child, softens the gums, allays all pain, cures wind colic, and is the best remedy for Diarrhœa. Is pleasant to the taste. Sold by Druggists in every part of the world. Twenty-five cents a bottle. Its value is incalculable. Be sure and ask for Mrs. Winslow's Soothing Syrup, and take no other kind.

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An old physician, retired from practice, had placed in his hands by an East India missionary the formula of a simple vegetable remedy for the speedy and permanent cure of Consumption, Bronchitis, Catarrh, Asthma and all Throat and Lung Affections, also a positive and radical cure for Nervous Debility and all Nervous Complaints. Having tested its wonderful curative powers in thousands of cases, and desiring to relieve human suffering, I will send free of charge to all who wish it, this recipe in German, French or English, with full directions for preparing and using. Sent by mail, by addressing, with stamp, naming this paper, W. A. NOYES.
820 *Powers' Block Rochester, N. Y.*

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A person cured of Deafness and noises in the head of 23 year's standing by a Simple Remedy, will send a description of it FREE to any person who applies to NICHOLSON, 177, MacDougal Street, New York.

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