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OFFICIAL SERIES.

THE FARMERS' JOURNAL,

AND

Transactions of the Board of Agriculture

OF

LOWER CANADA.

VOL : XII. JUNE, 1860. NO. 10.

CONTENTS.

(General.)

FARMERS' JOURNAL.—(*Editorial Matter*;) Application of the Sciences to Agriculture; Grazier and Breeder; Poultry Yard; Rural Architecture; Enquiries and Answers; Foreign Agricultural Intelligence, Obituary, and Critical Notices, &c.
HORTICULTURAL JOURNAL.—(*Editorial Matter*;) Entomology, Meteorology; Ladies Department; Markets.
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N. B.—Communications received before the 15th of each month will appear in the ensuing Number.

*O! fortunatos nimium, sua si bona norint,
Agricolos! quibus ipsa, procul discordibus armis,
Fundit humo facilem victum justissima tellus*
VIRG. GEO.

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EXTRACT FROM THE PROCEEDINGS
OF THE MEETINGS OF THE BOARD OF AGRICULTURE FOR
LOWER-CANADA, HELD ON THE 18th AND 19th OF MAY, 1860.

The President, Mr. Turgeon in the Chair.

The President opened the meeting in the presence of the following members:

- Mr. Turgeon (of Terrebonne), President of the Board, Proprietor-Farmer.
- “ De Blois (of Quebec), Vice-President, Proprietor-Farmer.
- “ Campbell (of St.-Hilaire), Knight of the Order of the Bath, Proprietor-Farmer—President of the County Agricultural Society.
- “ Casgrain (of l'Islet), Proprietor-Farmer,—President of the County Agricultural Society.
- “ Dostaler (of Berthier), Proprietor-Farmer.
- “ Pomroy (of Compton), Proprietor-Farmer.
- “ Taché (of Quebec), Knight of the Legion of Honor.
- “ Yule (of Chambly), Proprietor-Farmer—President of the County Agricultural Society.
- “ Ossaye, Professor of Agriculture in the Jacques-Cartier Normal School.
- “ Dawson, LL. D., Professor of Agriculture and Principal of McGill College, and President of the Board of Arts and Manufactures for Lower-Canada.

The question of the approaching Provincial Agricultural and Industrial Exhibition was laid before the meeting. The President, thereupon, reported the conferences which had taken place between the Board of Arts and certain members of the Board of Agriculture. Mr. Dawson, as President of the Board of Arts and Manufactures explained at length the views of that Board in relation to the holding of the approaching Exhibition. He insisted upon the necessity for the two Boards of Arts and Agriculture acting conjointly, and laid before the meeting proposals for the union.

The question of holding a Provincial Agricultural Exhibition conjointly with the Industrial Exhibition of the Board of Arts and Manufactures, on the occasion of the visit of the Prince of Wales having been put to the vote;

Mr. Taché moved in amendment that it appeared, on the statement of Major Campbell and Professor Dawson, that the special grant allowed for the holding of an exhibition this year had been given on account of the expected visit of the Prince of Wales, putting out of view ordinary considerations; that the entire grant appeared to have been entrusted to the Board of Arts and Manufactures which proposed by this means to bring to completion a building specially adapted to their purpose, and now in course of erection in the city of Montreal.

The projected exhibition have no relation to ordinary exhibitions, as is proved by the fact that the Agricultural Exhibition of Upper-Canada is about to take place in the city of Hamilton.

That the Board of Agriculture, having received no part of the special grant, and not being at liberty to choose the grounds and take the proper steps, nor being able to hold an ordinary exhibition, when a special exhibition is about to take place in the same part of the Province—so the Board

will be obliged to defer for a year the holding of the next Agricultural Exhibition for Lower-Canada. Lost upon division.

Mr. Taché thereupon proposed the following amendment :

That this Board being unable to hold an exhibition for Lower-Canada this year, believe it to be their duty to offer to the Board of Arts and Manufactures their moral influence, and the assistance of their officers to aid in organizing the agricultural part of the special exhibition with which it would appear to be charged. Lost upon division.

Mr. De Blois moved in amendment that the Agricultural Exhibition should take place at Quebec in the month of August next, and that this Board offer their assistance to the Board of Arts and Manufactures in the agricultural part of the Exhibition, which is to be held at Montreal at a later period of the season, under their direction. Lost upon division.

Mr. Yule proposed in amendment and it is resolved,

That a committee to be composed of the President, Mr. Ossaye and the mover be named, to be deputed to consult with members of the Board of Arts and Manufactures as to what conditions they could unite for the holding of the Provincial Exhibition, and that this committee be instructed to report on the morrow.

The Board took in consideration a request from three parishes of the County of Napierville, requiring authority to organize a second agricultural society for the county. Distance and difficulty of communications are the sole reasons which can in any case, authorize the formation of two agricultural societies in the same county ; and the Board do not see that these reasons have been sufficiently established by the petitioners to justify the granting of their demand.

The Agricultural Society of the County of Berthier demanded authority to employ a portion of their funds in the purchase of a public granary, alleging the promise made to the subscribers of permission to employ thus a portion of their allocation of the government grant. The Board of Agriculture not only disapprove the engagement undertaken by the directors of the Society, but their only reply to that demand can be to protest against any such employment of their funds in future, and against their making this authority serve as a precedent.

The Agricultural Society of Three-Rivers demanded authority to employ their grant in the purchase of a stallion. The Board of Agriculture compliments the board of management on the initiative it has adopted on this occasion and shall require from the Society but a detailed report of its proceedings relative to the purchase.

A portion of the County of Huntingdon demanded the formation of a second agricultural society. That demand was founded on no better grounds than that of the County of Napierville, and was rejected for the like reasons.

The Agricultural Society of the County of Gaspé No. 4, not having been in conformity with the requirements of the law as regarded the mode of obtaining the grant of 1859, demanded that the subscriptions of last year should stand as the subscriptions of the present, in order that they might be entitled to receive their portion of the public grant. Taking into view the present state of communications between the County of Gaspé and Montreal, the Board of Agriculture see fit to grant that demand.

The Board then took into consideration the modifications to be adapted in the List of Prizes of the approaching exhibition, and named a committee composed of Messrs Campbell, Ossaye, Pomroy and Yule charged with that duty.

The Secretary of the Board of Agriculture was then authorized to meet with the Board of Arts regarding the cooperation of that Board in the Agricultural department of the Industrial exhibition at Montreal.

A committee composed of the President, Messrs Campbell, Dostaler and Yule was named to audit the accounts of the year 1859-60.

By order,

The Secretary of the Board of Agriculture,
J. PERRAULT.

MEETING OF 19th MAY, 1860.

Mr. Turgeon in the Chair.

The President opened the meeting in the presence of the following members :

- Mr. Turgeon (of Terrebonne), President - Proprietor-Farmer.
- " De Blois (of Quebec), Vice-President—Proprietor-Farmer.
- " Casgrain (of P'Islet), Proprietor-Farmer—President of the County Agricultural Society.
- " Chauveau (of Montreal), Superintendent of Public Instruction.
- " Dostaler (of Berthier), Proprietor-Farmer.
- " Pomroy (of Compton), Proprietor-Farmer.
- " Yule (of Chambly), Proprietor-Farmer—President of the County Agricultural Society.
- " Ossaye, Professor of Agriculture, Jacques-Cartier Normal School.

The committee named to advise as to the means, conjointly with the Board of Arts and Manufactures, of holding a Provincial Agricultural and Industrial Exhibition, reported after their interview with that Board, and after inspecting the ground placed at the disposal of the agricultural department.

The report was taken into consideration, and it was unanimously resolved :

That the Board of Agriculture after having taken into consideration the propositions of the Board of Arts and Manufactures relative to the holding of a Provincial Agricultural and Industrial Exhibition at Montreal, at the occasion of the visit of the Prince Royal, are of opinion that the ground is not convenient and proper for the arrangements of the agricultural exhibition in contemplation.—Considering besides, the offers of the Board of Arts burdensome to the Board of Agriculture they feel that they will be unable to cooperate in the approaching Exhibition with the Board of Arts and Manufactures.

Mr. Dostaler then proposed, and it was unanimously carried ;

That considering the inability of the committee to come to an arrangement with the Board of Arts for the holding of the approaching Exhibition, this Board accepts the offers of the Corporation of Quebec for holding there a Provincial Agricultural Exhibition on the occasion of the visit of the Prince Royal.

Mr. Yule then proposed and it was resolved :

That Messrs Casgrain, De Blois and Taché be appointed delegates to the Honourable the Attorney-General, in order to ascertain what grant this Board may depend upon, on the occasion of the holding of the approaching Provincial Exhibition.

A committee of management, composed of the President, Vice-President, Messrs Casgrain, Pomroy and Yule was then named to take all the steps necessary to be adopted for the holding of the Provincial Exhibition.

By order,

The Secretary of the Board of Agriculture.
J. PERRAULT.

J U N E.

We experienced very dry weather during the early part of the past month, though there have been thunder storms throughout the West. Fodder, during the spring, was very scarce and valuable. Stock in many places suffered severely for want of food. The streams and rivers fell so low that a very large quantity of lumber has stuck on the way down the Ottawa. At length on the 18th and 19th and on the morning of the 26th we were visited by a severe snow storm, attended by frost, most unusual at this season. On the morning of Sunday the 20th, the streets, at an early hour, were covered white with snow, and the trees clothed in their fresh green leaves, but cased in ice, rustling in the wind with a sound resembling the dry leaves of autumn. But as we had no bright sunshine the next day, the thawing was gradual, and the foliage does not appear to have suffered materially.

When we have lengthened periods of drought, vegetation is considerably checked, and the soil becomes hard and stiff, and meadow lands are unproductive. If land, through the want of thorough drainage, should have been unfit for seeding down in spring, it should be sown with buckwheat, or carefully summer fallowed; for, one good crop is much more profitable than two bad. Take care to keep down weeds.

We presume, of course, that our readers are gradually adopting a good system of rotation; so that the whole farm may be brought under a system of regular cropping. As from the shortness of our working and growing seasons, not a moment ought to be lost in this country, we cannot refrain from repeating here, that by efficient drainage, our seasons might be greatly extended. What an invaluable benefit to the farmer would thus be realized by the most sure and simple means. At present work requires to be done, in wet soils especially, in Canada, to the day—almost to the hour—if we may hope for success. The careless and dilatory are sure to suffer. Late sowing will certainly be followed by late and precarious harvesting.

We would earnestly caution our readers against the importation of foreign cattle. No cattle should be brought from any portion of the New-England States. We have supplied some information on this subject in the present number of the "Journal." The disease has been very severe, and has extended its ravages over very wide districts.

Turnip seed may still be sown, and the seed should be previously steeped in train oil and dried with sulphur. It is thought that such treatment is favourable to its vegetating speedily—promoting, at sametime, a certain vigour of growth, and repelling insect enemies. It has frequently been proved by the test of experiment—by sowing the steeped seed alongside the unsteeped—that the first was unscathed, while the other was thoroughly riddled or entirely consumed by insect ravages. This would seem to prove the efficacy of the remedy. At all events a rapid growth is the best preventive. For after the plants get into the "rough leaf", they are safe. Summer fallows should be ploughed, and the weeds thoroughly extirpated. About [the middle of July hay harvest will commence. Timothy is then in flower, and in the best state for cutting. Timothy should not lie above half a day in swath—what is cut in the forenoon should be put in cocks before night, and that cut in the afternoon, before the dew falls upon it a second time. The less Timothy is exposed to weather, the better; as a heavy dew will injure the colour nearly as much as a shower,—though it should

be thoroughly dried before storing. Clover is much more difficult to cure, and requires more attention. It must be turned two or three times—put into cocks, and thoroughly seasoned—but rain is most injurious to the quality at any period of curing. It should be cut while in flower, and before the blossoms begin to decay. If not thoroughly dried, I have frequently mixed layers of straw with it, which former imbibes the superfluous moisture, without in any way abstracting from—nay rather adding to the value of the clover. Rick covers are valuable, though somewhat expensive. But if taken care of, they will last a long time. The horse rake is a valuable improvement. It will speedily repay itself. Weeds should be carefully cut down in the fields, and round the fences and road sides before flowering. The dairy at this season requires great attention, and be careful to find your stock in pure water in plenty. Salt should also be supplied.

J. A.

THE SUGAR MAPLE.

Lambie's Mill, Leeds, C.-E. 20th April 1860.

Mr. Editor,—As I have many opportunities of observing the farming operations of half the people in four townships, and have Agricultural Chemistry at my fingers ends, I cannot feel justified in locking up my knowledge and putting my candle under a bushel; I shall therefore trouble you now and then with a few remarks, if you will insert them, in the hope that from the observations of a looker on who proverbially sees most of the game, some of the players may take a hint and gain a more easy victory.

In the first place, I must find fault, and in the second I must point out a means of curing the fault. *Generally* in the townships of Leeds, Shefford and neighbouring townships, an improvident, hand-to-mouth system is the rule. *All* the trees are cut down, timber trees, maple trees and all others indiscriminately without any reference to the future. By and by there is not a respectable tree on the farm, the increase of labour in procuring fire-wood is greater and greater, the fields are totally unsheltered, and in 20 years the possessor is bemoaning his folly. Yet his neighbours follow the same improvident system and in another score of years our saw mills will have little to do, our houses will be at freezing point, and our farmers will have to pay for sugar, or to go without.

Now this might be avoided by a little care and forethought. Why not have 20 acres of land, a few acres from the house, for a supply of fire-wood and so save the trouble and labour of going so far for fuel? This bush should not be cleared, but only those trees that are necessary should be taken, and that with such care as to leave the others uninjured.

But what is more of importance is the sugary. There are some farms that are all a sugary. Why, if I had 100 acres of sugary, I would not destroy it but work it *all*, and would make it yield me £180 10 per annum. Allowing to the acre 49 trees, I should have 4840 trees on 100 acres. From this I should get 14,520 lbs. sugar or 3 lbs. per tree, and in money £181 10 @ 3d per pound for the sugar.

Now I want your readers to be startled at this, and to disbelieve it and ; next time I write, I will show them how to do it. I remain, &c.,

W. S. VIAL.

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ASHES CIRCULAR.

The manufacture of ashes, being a most important branch of the trade of Canada, is deserving of more attention than it has hitherto received ; and with a view to its more successful development, the subscriber has at different times issued circulars, and otherwise furnished such information as he thought conducive to the result. As, however, much improvement is still needed to make the trade all it ought to be, it seems desirable, at the opening of a new season, to return to the subject, adding such particulars as further experience suggests.

Manufacturing.—First sort pot ashes should contain at least 75 cent. of pure alkali. The result is not difficult of attainment, if proper care be taken. The most frequent cause of inferiority is a greater or less mixture of dirt resulting from an imperfect leaching process. The raw material in many cases being field ashes, is more or less mixed with earth. The leaches should be clean, and have a layer of pure lime, say five or six inches deep ; the quantity of lime being regulated by the purity or otherwise of the raw material.

Another cause of inferiority is the adulteration of the ashes with lime, salt, sand, &c. It thus frequently happens that ashes which to an unpracticed eye would appear first sort, are too weak for the standard. The effect is, however, readily detected by the inspectors, who, in addition to the accuracy acquired by long experience, apply tests in doubtful cases. In reality, therefore, nothing is gained, while much is sometimes lost by adulterations. The use of lime, except in the leaches, should never be resorted to.

Another cause of inferiority is weak ley. The last run of the leaches, when too weak to float an egg or potato, can be more advantageously employed for wetting the next leaches, as, besides injuring the quality of the ashes, the product is scarcely worth the time expended in boiling.

The grades by law established are first, second and third sorts, and unbrandable Nos. 1, 2, 3, 4 and 5, and in selling the custom of the trade is to deduct one-eighth on every grade from the selling price of firsts. Thus No. 2 has one-eighth deducted, No. 3 one-quarter, and so on ; unbrandable No. 5 would have seven eighths of the price of firsts deducted.

Packing.—Barrels in which ashes are packed should be made of oak or white ash, well seasoned, and covered with round hoops to the extent of two-thirds of the barrel. The casks should weigh about 80 lbs., or equal to one-eighth of the gross weight when filled ; the tare to be accurately marked on the barrel by the cooper. The dimensions established by law are 20 to 22 inches diameter of head, and 30 to 32 length of stave ; larger or smaller are always condemned.—Unseasoned casks or whiskey barrels should never be used, as the moisture causes the ashes to deteriorate. The ashes should be allowed to cool thoroughly before packing, and be emptied by coolers into the barrels ; two good-sized coolers being sufficient to fill a barrel. Pot ashes should be as little broken as possible, as the more they are broken, the more rapidly they deteriorate by the action of the air. If the ashes have begun to melt before packing, the cakes may be rubbed with dry slacked lime to prevent further melting, but lime or raw ashes should never be thrown carelessly over them, as this injures the appearance, and must be separated in inspection. The barrels should be well filled, but in no case should stones, wood, lime, raw ashes, straw or dirt be put in to fill up, as

these must be removed in inspection, and a charge incurred for doing so ; while there is another charge made by the purchaser on barrels not full, as before shipping he must incur the expense of filling. When packed, the barrels should be well coopered, with a few shingle nails in the end hoops to prevent their slipping off ; and if not forwarded to market at once, should be kept perfectly free from moisture.

Forwarding.—In this department much irregularity, delay, vexation, and, in some cases, loss of property have hitherto occurred, mainly owing to ignorance of the rules of forwarding on the part of the shippers, and carelessness on the part of forwarders. It has sometimes happened that one or more barrels have been forwarded without any mark whatever ; the freight note at the same time furnishing no clue to the owner's name or place of residence : and because returns are not promptly forthcoming, the consigner writes angry letters, when the fault lies with himself and the forwarder who took the property without proper marks.—Others, again, only put the consignee's initials on the barrel, or his name on a card nailed on and liable to be rubbed off, and out of several lots thus marked, coming from various persons and places, and arriving about the same time, he is expected to know to whom they respectively belong, and to make prompt and accurate returns ! Another irregularity frequently occurring with forwarders is furnishing a freight bill of ashes belonging to various consigners and coming from widely different places, with the whole number of barrels put down as one lot, and the charges lumped in one sum ; the consignee being left to determine the amount to be affixed to each as best he may. We can understand how a person in some backwood locality may suppose that everybody must know *his* ashes without distinctive marks and numbers, but we can only wonder at the carelessness of forwarders in taking charge of and forwarding property in this slovenly, unbusinesslike manner. We have again to insist that every barrel of ashes is legibly marked with paint, giving the name of the sender and place of residence, the name of the consignee and residence, and a running number. No other marks should be used, as many marks only lead to confusion. In cases where a merchant may forward the ashes of one or more of his customers, they can be as readily distinguished by the number as by the addition of his name. A bill of lading or forwarder's receipt should in all cases be taken, having the marks and numbers carefully specified, as on the barrels, and be enclosed in the letter of advice. Each shipment should be regularly advised, and the letter should be dated from the place where it is desired the remittance should be sent, in all cases carefully specifying the marks and numbers, and mode of remittance desired, whether in bills by mail or otherwise. Forwarders should invariably insert marks and numbers in their manifests and advice note as, without these simple precautions, we see no possibility of tracing or proving delivery of missing barrels.

Pearl ashes cannot be manufactured except by persons who enter regularly into the business, and who must, consequently, have all necessary knowledge.

JOHN DOUGALL,

Commission Merchant, No. 270 St. Paul Street, Montreal.

SUBSTITUTE FOR COTTON.—The annual report of the Secretary of State on Foreign Commerce, for 1859, contains a despatch from F. S. Claxton, American Consul at Moscow, in relation to the economical use in Russia of a fibrous plant as a substitute for cotton in the manufacture of cloths. This plant, whose botanical name is *Aselepias Cornuti*, he states, is said to be a native of Canada, to grow with and without cultivation, and, after undergoing a process, as yet a secret, to be in every way suitable for manufacturing purposes. The sample of the

cloth which I have seen, and of which a specimen is promised me, compared favorably with cotton goods, Nos 50 to 60 "picks" to the inch.

It is represented as a hardy plant, withstanding well the climate of this latitude, and is propagated from a seed sown in May and maturing in September; it is then cut and dried in the open air, or water-rotted, like hemp, to be afterwards broken and husked in the same manner.

Its subsequent treatment is the secret of the inventor, who has the sole privilege in Russia for ten years, which he has disposed of at a large price, and which he proposes securing by patent in England and France. The estimate put upon the value of this process for the United States is extravagant, considering the price of cotton and its probable depreciation, in case all that is claimed for the invention is realized. I think the secret may be purchased by a little management for two or three thousand five hundred roubles.

The inventor admits that the manufacture wholly from this material will involve some changes in the "speeders and spinners," but asserts that, mixed in equal proportions with ordinary cotton, no change will be necessary. He estimates the cost, all labor, &c., included, at four copecks per lb—one hundred copecks equals one rouble, seventy-five cents.—N. Y. *Economist*.

THE CULTIVATION OF FLAX.

Messrs. Perine, Brothers, Comestogo, Co., Waterloo,

DEAR SIRS:—Those who are anxious for the material prosperity of Canada begin to feel that some effort should be put forth to procure for the province the introduction of crops that will not only supply the place of wheat, but that will at the same time be more reliable in their growth than the grain. All will admit that while wheat remains the staple product of Canada, and yearly subject to the uncertainty which has marked its growth for several years back, that the progress of the province will be but slow, while our trade and credit abroad will be greatly impaired. For some years back the cultivation of wheat has greatly decreased in productiveness, which has so discouraged the farmers, that in many parts of Canada very small crops are raised. Last season a large amount was destroyed by frost, rust, &c.; indeed for several seasons both by insects, frost, and the uncertainty of the weather, fall wheat has proved a failure, and would have caused the greatest depression in this county were the farmers not able to bear up against such failures. In other parts of the Province, the failure of this staple has been much greater, causing great depression in all departments of trade. These facts have aroused the attention of agriculturists and others to the necessity that exists for the introduction of some other crops that will prove equally remunerative, while they will be less liable to failure from the causes which have destroyed the wheat for past years.

The subject of the cultivation of flax is one about which a good deal has been written of late in the public journals; but all that has been said is too general, and not of that practical nature to warrant our farmers turning their attention to its culture, instead of wheat and other grains, of which long experience and practice have made them familiar. Before the farmer, in this or any other section of the province, will devote his time and labour to the raising of flax, he must have some reliable information from those who have had some experience in its culture that it will pay. As you have been long engaged in the cultivation of flax, as well as in dressing it, consequently fully competent to afford useful and reliable information, I have taken the liberty to address you this letter, and to put a few queries to you which will afford our farmers the information of

which they at present stand so much in need. Let them be convinced that the growing of flax is more remunerative than wheat, or equal to that grain, but is more reliable, and I have no doubt its cultivation would be very generally engaged in. Am I not warranted in stating, that such of the farmers in this county as tried it last year, as an experiment, are well satisfied with the remuneration they have received from their labour? It is because I feel satisfied that its culture, on the whole, would pay better than wheat, while the risk growing the former, as regards sure crops, would be at least 25 per cent. less than the latter.— But in order to elucidate this more fully, I will feel obliged by your furnishing me answers to the following questions:—

- 1st. How long have you been engaged in the cultivation and dressing of flax?
- 2nd. Do you think the soil and climate of this country, generally adapted to its growth?
- 3rd. How many acres of flax have been cultivated in this county during the past year? And, has this been sufficient to keep your scutching mills constantly supplied?
- 4th. What kind of soil is best suited to the growing of flax?
- 5th. Does the soil require more preparation for the reception of flax than wheat?
- 6th. When is the best season for sowing flax seed?
- 7th. Do you not think that as good a quality of flax can be raised in Canada as in any other country?
- 8th. What is the average quantity grown of an acre of land?
- 9th. Can you give me the cost of the cultivation of an acre of flax on ordinary farm land?
- 10th. What would the producer's nett profit be on the acre, when the flax is selling at ordinary rates?
- 11th. Do you find a ready market for all your dressed flax?
- 12th. Do you not think that the cultivation of flax by our farmers generally, would pay better and prove less risky than that of fall wheat?

I ask these questions for the benefit of the farmers of this and other counties, as many of them are anxious to procure information on this subject, and I know none better qualified to furnish it than yourselves.

I remain gentlemen. Yours respectfully,

D. McDOUGALL.

Telegraph Office, Berlin,)
9th April, 1860.)

To the above queries the following very full and satisfactory answers were received from Mr. W. D. Perine, of the firm of Perine Bros. of this county, which are the best we have yet seen; and coming as they do from one who has been long engaged in the cultivation of flax, they can be relied on, and will be read with a great deal of interest:

(To the Editor of the Berlin Telegraph.)

DEAR SIR,—I am happy to lay before your readers any information that will facilitate the culture of flax, and I know of no more concise way of doing so than to answer the questions contained in your favour of the 9th April:

I have been engaged in the cultivation and dressing of flax for seven years.

I think the soil and climate of this country generally well adapted to the growth of flax, and am happy to state that this opinion is concurred in by an extensive flax-grower from the north of Ireland, a Mr. McRae, who did us the honour to pay us a visit in July last, for the purpose of examining the growth and quality of flax in this county, both of which he pronounced to compare favourably with that grown on his own farm.

The amount of flax grown in the county of Waterloo last season was about 700 acres, which has sufficed to keep our mills running a little more than half the year, say seven months; the lack of material being a very great disadvantage.

I have universally raised the best crops of flax upon heavy soils, where fall wheat is more liable to fail. I prefer in all cases a deep loamy soil, with clay subsoil. I think sandy or gravelly soil should be avoided, as upon such soil the excessive heat of the sun tends to prematurely ripen, thus rendering the growth short and the fibre light.

I do not think that more labour is required for a crop of flax than a crop of wheat; in fact all that has been sown in this county for the last seven years has not received one-half the attention to the preparation of the land as a similar amount of fall wheat. But I do not think that deeper ploughing and better preparations of land would materially increase the products of the flax crop.

Experience of the past three years proves that early sowing is necessary for good returns, say, from 25th April to 5th May. From personal observation I am not prepared to say that we can raise as good an article of flax in Canada as is raised in other countries, but from what I can gather from flax growers from other countries I am inclined to believe that *we can*, preparation of soil being equal. Still, I doubt if we can make as good an article of flax from the green straw as they can in Ireland, owing to the manner of handling during the rotting process. However, further experience may prove the contrary. As to the average product of the acre we stated to the Board of Agriculture over a year ago, that it was 300 lbs. of lint and 12 bushels of seed. But we find during the past season in all cases where farmers have taken good care to prepare the land and attend well to the rotting and handling of the straw, that the products are much greater than we at that time stated.

The cost of harvesting and preparing for the scutching mill a crop of flax will not exceed \$7 per acre, and as to preparing the land, as I before stated, the cost of the ordinary method as now practiced is very little if any more than that of spring crop.

The average of the producer's profit, exclusive of harvesting and preparing for scutching, is something more than \$30,00 per acre.

We have as yet found no difficulty in disposing of all flax dressed by us.

It is admitted by all that have sown flax in this county, that it is far more remunerative than wheat, and you would be fully warranted in saying, that it is 25 per cent. less risky than spring wheat and 50 per cent. less than fall wheat in this county.

In fact there has been no instance of failure of flax in this county for the last seven years, when it has been sown in proper season and the land under a proper state of cultivation to receive the seed.

It cannot be denied that there has been a great many poor crops of flax raised since I undertook to introduce its culture among the farmers of the county of Waterloo, seven years since. But it has been more the result of inexperience of the producer, than the fault of the crop itself.

Hoping that the information I may have given you will be of service to your numerous readers, — I remain, Sir, Yours truly,

Conestogo, April 17, 1860.

W. D. PERINE.

THE HOG PRODUCT OF 1859.

The following tables are from the Annual Statement of the Cincinnati *Price Current*, and are undoubtedly nearly correct, that journal having returns from almost every packing point in the West. The hog crop of 1859-60, although large, is shown to be $5\frac{3}{4}$ per cent. less than that of 1858-59, and $1\frac{1}{4}$ per cent. less than that of 1857-58, but $16\frac{3}{4}$ per cent greater than that of 1856-57, an increase which is undoubtedly proportionally larger than the natural increase of consumption. In some respects packers have acted more judiciously than last year, nearly all the hogs then packed having been put into pork, and the very heavy stock which they have been compelled to carry has kept the market in a constant state of depression. This year, however, there is a greater supply of bacon sides, and with the active demand for the English market, which has prevailed since the packing season commenced, most of this portion of the product will undoubtedly be disposed of at a remunerative price. Although there is a considerable falling off in the number of barrels of pork packed, the total stock in the country must be as great as at this time last year, the stock of old pork being unusually large. There is also a slight decrease in the production of lard equal to about $1\frac{1}{4}$ per cent. from that of last year, which was considered light.— Taking everything into consideration, the year opens with better prospects than did the last two seasons, considerable quantities of lard, pork, and bacon already having been shipped to foreign countries, and appearances indicate a continued shipping demand, while the trade for a home consumption is decidedly better.

Hogs Packed.

	1858-9.	1859-60.
Ohio	638,397	680,858
Indiana	412,289	454,046
Illinois	591,380	504,935
Kentucky	396,117	322,487
Missouri	163,774	190,260
Tennessee	65,172	26,800
Iowa	163,974	166,936
Wisconsin	33,932	54,500
Total	2,465,035	2,350,822
	2,350,822	

114;213 Hogs,

showing a decrease from the total number packed last year.

The following statement shows the average weights of hogs and the yield of lard this year, compared with the year previous :

	Average weight per Hog.		Yield of Lard per Hog.	
	1858-9.	1859-60.	1858-9.	1859-60.
	lbs.	lbs.	lbs.	lbs.
Ohio	190	191 6-19	26	26
Indiana	185 $\frac{1}{2}$	892 $\frac{1}{2}$	23	27
Illinois	187	191	27	30
Kentucky	219	197	36	31
Missouri	190 $\frac{1}{2}$	194 2-9	25	26
Iowa	181	191 $\frac{1}{2}$	23	29
Tennessee	212	189	28	26
Wisconsin	230	207	28	29

The aggregate weight of hogs compare with last year as follows :

	Lbs.
1858-59	404,786,362
1859-60	402,294,685
Decrease this year	2,491,667

Total Yield of Land.

	Lbs.
1858-59	66,276,925
1859-60	65,406,738
Decrease, lbs.	870,187

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MANAGEMENT OF A SKINNED FARM.—*Editors Country Gent.*—I have a farm of 120 acres, one and a half miles from the one upon which I reside, with no farm buildings upon it. About 30 acres is bottom land surrounded entirely by water, and in spring the greater part overflows; consequently it is safe to plow it only in the spring. The grass is mostly run out. As I make no manure upon the farm, how shall I manage to make it produce a paying crop? I think its fertility needs to be increased. I can obtain swamp muck convenient for the bottom land, but not for the higher, which is gravel and gravelly loam. What system would you pursue to increase the fertility of the last named, and what course of cropping would you follow? Lime has to be hauled near forty miles. As the upland is naturally dry, what mixture of seed would you use in seeding for pasture? An answer from yourself or some of your subscribers, will much oblige,

E. R. B.

For seeding, use clover and timothy for the upland, and timothy and red-top for the low-land. There are so many circumstances in relation to the low-land of which we are not informed, that we cannot give definite advice. If it is sod-bound, plow and re-seed. If it wants vegetable matter, &c., plow in green crops. If the reverse, dress with ashes and some yard manure. If the overflowing leaves no sediment, or is by clear water, top-dress the grass with an inch of soil.

For the upland, plowing in green crops will doubtless be very useful. These crops may be clover, buckwheat, or thickly sown corn; or all. Some manure occasionally would help much—also, ashes and perhaps plaster on the clover.—The rotation to be chosen will depend entirely on the nature of the crops it will grow, and on markets

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SAW-DUST AS A MANURE.

We are pleased to notice an increasing attention to the subject of agriculture, especially in this State. Scientific labor is being applied to almost every branch and it is producing the desired results. Next to drainage, we think the most desirable object to be attained by our New-England farmers is a sufficiency of manures to keep the land in heart. Nature has evidently provided for herself, and if man would follow out the teachings of nature, he would find that her generosity knows no stint, if rightly taken advantage of.

We noticed, in last week's *New England Farmer*, a query propounded by an intelligent farmer of Orange, in this State, as to the value of pine saw-dust for the purposes of bedding cattle, and we feel tempted to give our experience. In the years 1855 and 1856, while residing on the homestead in the town of B—,

Franklin county, Mass., we conceived a plan for saving the urinal deposits of the stock, and also to absorb the juicy part of the droppings. We had access to a large sawmill, about three-quarters of a mile from the barn, where large quantities of hemlock and other timber were annually sawed. We commenced carting saw-dust into the barn shed about the first of September, and continued it through the winter, filling up the large bay as fast as the hay was spent. Our plan for using was as follows: first, to cover over the entire surface of the stable floor to the depth of three or four inches with saw-dust, and for the convenience of the milch cows there was placed on the top of the saw-dust coarse brakes and spent corn fodder—this last was shaken up every morning and night, and replenished as often as necessary, and the entire stable cleaned out once a week.—Under the cattle and young stock saw-dust only was used. So thoroughly did this absorb all the urine and juicy substances that when thrown into the shed, the stable floor was as dry as the barn floor. The manure heap in spring gave 148 large ox loads—from saw-dust 70 loads, muck 20. The manure was entirely free from heat—was so thoroughly pulverized that no fork was necessary to load it; and the crop of corn in the fall fully responded to the benefits of this treatment.

There is another valuable manure to be found around sawmills, and we have often wondered, as we rode through Orange, Athol and Erving, that the farmers did not use it. We mean the accumulations about the log-way which have been rotting there for years. Nothing better can be added to the compost heap, especially for potatoes and the purposes of top-dressings.—*Commercial Bulletin.*

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EXPORTS OF GRAIN FROM CANADA.

The following table shows the exports of grain from Canada to the United States during the year 1859; also the amount Oswego received, compared with other ports. Some shipments have undoubtedly been made over the Suspension Bridge, and Victoria Bridge at Montreal, but the amount that has reached the States by these routes must be very small:—

Imports of Canadian Wheat.

Received at Oswego .. .. .	.bu	854,685
“ Buffalo .. .. .	..	426,607
“ Rochester .. .. .	..	416,821
“ Cape Vincent .. .. .	..	214,735
“ Ogdensburg .. .. .	..	106,360
		1,161,523
Total imports of Wheat .. .. .	..	2,019,208

Imports of Canadian Oats.

Received at Oswego .. .. .	.bu	128,259
“ Buffalo .. .. .	..	180,064
“ Rochester .. .. .	..	20
“ Cape Vincent .. .. .	..	4,306
“ Ogdensburg .. .. .	..	35,600
		219,999
Total imports of Oats .. .. .	..	348,249

Imports of Canadian Barley,

Received at Oswego .. .. .	.bu	552,420
“ Buffalo	200,895	
“ Rochester	700	
“ Cape Vincent	127,945	
“ Ogdensburg	16,260	
		<hr/> 345,806

Total imports of Barley 898,220

Imports of Canadian Rye.

Received at Oswego .. .. .	.bu	172,377
“ Buffalo	1,217	
“ Rochester		
“ Cape Vincent	54,108	
“ Ogdensburg	10,940	
		<hr/> 66,265

Total imports of Rye 238,642

Imports of Canadian Peas.

Received at Oswego .. .. .	.bu	129,620
“ Buffalo		
“ Rochester	8,178	
“ Cape Vincent	14,979	
“ Ogdensburg	1,202	
		<hr/> 24,359

Total imports of Peas 153,979

The aggregate receipts of grain at Oswego, and other ports as above, foot up as follows,

Canadian grain received at Oswego	bu	1,837,361
Canadian grain received at other ports		1,820,937
		<hr/>

Total receipts 3,658,298

Showing that Oswego receives more than half of the grain shipped from Canada to the States.

By converting the flour into wheat, the total exports of grain from Canada to the United States in 1859, exclusive of the amount shipped by Suspension Bridge and Victoria Bridge, was 4,371,323 bushels.

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NUTRITIVE QUALITIES OF THE ONION.—The onion deserves notice as an article of great consumption in this country, and it rises in importance when we consider that in some countries, like Spain and Portugal, it forms one of the common and universal supports of life. It is interesting, therefore, to know that, in addition to the peculiar flavour which first recommends it, the onion is remarkably nutritious. According to analysis, the dried onion root contains from twenty-five to thirty per cent, of gluten. It ranks, in this respect, with the nutritious pea and the grain of the East. It is not merely as a relish, therefore, that the wayfaring Spaniard eats his onion with his humble crust of bread, as he sits by the refreshing spring; it is because experience has long proved that, like the cheese of the English labourer, it helps to sustain his strength also, and adds—

beyond what its bulk would suggest—to the amount of nourishment which his simple meal supplies.

CAHOON'S PATENT SEED-SOWER.

The machine stands within the common wagon body, occupying a space not exceeding three by four feet. It is propelled by means of a cast iron wheel fastened to the spokes of the hind wheel of the wagon, or the left wheel of a farm cart. This attachment is formed by hooks, and may be accomplished by any one in five minutes. The wheel has long pointed cogs, each of which play into a link of the endless chain that passes over the small cog wheel on the end of the spindle, extending from the machine over the side of the wagon-body. This spindle, by wheel work, drives the distributor—a small funnel-shaped sheet-iron hollow cone placed horizontally—the mouth of which is shown at the bottom of the hopper. On the interior of this funnel or cone are four ribs or strips of sheet-iron half an inch to an inch wide, extending from the apex to the mouth. The operation is thus—as the wagon wheel turns the spindle is revolved rapidly and the distributor very much more rapidly, while the grain being poured into the hopper escapes in the small end of the cone, which being whirled with great velocity, throws the grain as represented in the cut, even and a great distance.—The amount of grain thrown out is in proportion to the motion of the wagon, the gauge remaining unchanged

The whole is, however, arranged with regulators so that any desired quantity can be sown upon an acre, as well as any kind of seed, lime, plaster, ashes or guano. The hand machine, a cut of which is also shown, operates upon the same principle, the crank in the hand answering to the wheel and chain.

Charles E. Greene, Esq., of Yolo Co., Chairman of the Committee on agricultural implements, at our late State Fair, held in this city in September last, says, in his report, that "one man with the hand machine can sow fifty acres per day, and a horse-power machine will sow one hundred and fifty acres per day, and do the work much better than it is possible to do it by hand." The same gentleman now, January 3d.—1860' says: "I have sowed with the machine during the present season over nine hundred acres, and I am prepared from experience to testify to all that was said in the report. It scatters good wheat perfectly *sixty feet wide*, and to sow one hundred and twenty-five acres per day, is an easier task for a span of horses than to do an ordinary day's work at harrowing, while there is an evenness to the grain when it comes up which will be admired, and it will surprise every one acquainted with hand sowing only." We write this description and insert these illustrations solely for the benefit of the cultivators of the soil; and any one who has scattered grain with the hand half as many days as we have, and has occasion for further exercise of the same kind, will be grateful for the knowledge of an *easier*, as well as a more excellent way. A sample of the machines may be seen at the rooms of the Society.

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HOW TO RAISE GEESE.—*Mr. Editor*:—I recently found some inquiry in the *Farmer* about raising geese, and as I am an old hand at it, I thought I would reply. When they commence laying, which is usually April or May, a box with bran or cotton on the bottom should be provided, so that eggs will not roll about. As often as there is an egg laid in the box, the rest of the eggs should be turned over very carefully. When the goose is done laying, and wants to set, she will make her nest, feather it, and set on it; the nest should then be

taken out very carefully, and a nest made with about four quarts of horse manure and some chaff on that; let it be made large and commodious, and then lay the nest the goose made on the other very carefully, not disturbing the straw nor feathers. Fill in all around the nest, making it about level, so that the goose can go on and off with ease. The goose sets four weeks; mind the time correctly. Two or three days previous to the time of hatching, place the eggs in a broad, deep thing, with milk-warm water to let them swim, and those that have live goslings in them will bob round and swim and those that have not, will sink or be still; the gosling will break the shell on the end that stands out of the water. Do not put the eggs in water after the shell is broken, but drop some water on the goslings bill when the gosling is hatched and nest-dry. Take it in the hand, and with the thumb and finger press the bill open and drop in a pepper corn, and then some sweet cream; have ready some green turf, place it round the nest, and sprinkle on it some Indian dough, where the goose will pick, and learn her young. They are a very tender fowl, and require care till their feathers are grown, after that they need not be fed, if they run in the road. They can be plucked three times the latter part of the three summer months; some think it very wicked to pick them, but they shed all that you pick, quills and feathers: they can be tried, and if they come hard, wait a week or two. Do not let the young go to the water too soon; have a short thing for them to drink out of; if they should get chilled, take them to the fire and put warm ashes on their back, and feed them with cream with a tea spoon.

Two geese are better than three, and one is better than two, as they are apt to beat each other, and unless they hatch all together, they will beat the young. When I kept geese, I fed them on corn till the grass grew, and not after that till they were fatted in the fall.

CORDAGE FROM THE OKRA PLANT.—A correspondant in Arkansas, has sent us a specimen of the material for cordage, made from this plant. He informs us it is taken off as soon as the frost has bit the stalk and made it slip freely. The specimen is coarser than Manilla, and possesses less tenacity, and will not therefore, we think; be of much value. At the same time we would commend every effort to discover the best plants for this purpose, as millions of dollars are expended for the materials for cordage, and a plant that shall furnish it cheaper, better, and more abundantly than flax or hemp, will be a great acquisition.

HAY AND BUTTER.—A correspondent of the *Ohio Farmer* boasts of having raised from one acre, at one cutting, 9,315 lbs. of timothy and red-top hay, for which he received the premium at the fair of Summit county; and that he has a cow from twenty-four and a half quarts of whose milk he made five pounds and ten ounces of thoroughly prepared butter—cow fed on hay and corn stalks, with peck of soft corn per day.

PIN WORMS IN HORSES.—Will any of your contributors give a remedy for pin worms in horses? Such a remedy would be of much value to very many of your readers.—*Exeter, N. H., Jan., 1860.*

Remarks.—Mix a gill of clean wood ashes with cut feed, and give the horse every other day one feed for a week, and watch the result. If you observe small white streaks about the anus, continue the dose a week longer.

SUBSCRIBER.

HAY REQUIRED FOR COWS.—Otis Brigham of Westborough, Mass., after 70 years' experience in farming, says in the *N. E. Farmer*, that good cows will eat on an average 20 lbs. of hay per day, when giving milk, and 15 lbs. when dry—not by guess work, but tested by actual weighing for months at a time. They will pay well for their keeping, by an average of 6 qts. of milk per day through the year. He estimates summer pasture at 50 cents a week, and milk at 34 cents a quart.

PLEURO-PNEUMONIA.—A communication having been lately received by the Royal Agricultural Society of England from the Central Society of Agriculture in Belgium, requesting information on Pleuro-pneumonia and the means adopted to combat the disease, having particular regard to the effects of inoculation—a reply was ordered to be made that inoculation was not found in Great Britain to rest on any scientific basis, and as such it has not received the sanction or support of the Royal Society.

PULVERIZED CULINARY HERBS.—The culinary herbs raised and put up by Mr. Hoyes Nourse, of Danvers, are sure to meet with favor, wherever introduced, from the fact that they are fresh, in neat packages, and, most important consideration of all, unadulterated, being raised on his own farm and put up under his own supervision.

HOW TO PAINT NEW TIN ROOFS.—Scrape off the rosin as clean as possible, and sweep the roofs. Wash it with strong soda water, and let it remain until a shower of rain has fallen upon it. Give it a coat of pure Venetian red, mixed with one-third boiled and two-thirds raw linseed oil; the second coat may be any color desired. The soda water dissolves the rosin remaining after scraping; and it destroys the greasy nature of the solder, and that of the new tin, so that there will be sufficient "grip" for the paint to adhere firmly. The Pure Venetian red is one of the most durable paints for metallic roofs, but is often rejected on account of its color. The above mode of painting will set aside this difficulty.—*Scientific American*.

SOAKING SEED WHEAT.—Mr. Walter R. Neal, of Maysville, Ky., writes to the *Rural American*, that in the fall of 1858 he prepared 20 acres of land for wheat, and at the same time his brother, whose farm adjoined his, prepared ten acres. The land, seed and mode of preparation, and time of sowing were the same. The only difference was, he says, "my brother soaked his wheat before sowing, in strong brine, and then rolled in lime; while I sowed mine without either. Now mark the result. At threshing time my yield was 13½ bushels to the acre, which was about an average yield in the neighborhood, while my brother's averaged 22½ bushels to the acre. Still further, my wheat was damaged with the smut, while my brother's wheat was entirely free from smut and all foreign seeds."

COLORING MATTER FOR BUTTER.—In your paper of Jan. 14, I perceive that Mr. Everett, of Princeton, Mass., speaks of using the juice of carrots in making butter; I presume this is done to improve the color of the butter. I have known other coloring materials to be used for the same purpose. I cannot believe the use of any such material to be desirable. When cows are in good condition,

generously fed, their butter will be yellow enough, without such colouring ingredients. I am surprised that any one who feels competent to instruct others in the making of butter, should think it necessary to use the juice of carrots to color it. My mother, who made as nice butter as I ever saw, some seventy pounds per week through the months of June, July and August, never used any such extra material to color the butter.

AN ALARMING DISEASE AMONG CATTLE.

Much excitement is prevailing in Massachusetts in regard to a fatal cattle disease, that has been common in Europe for many centuries, brought into the commonwealth last May by an importation of four Dutch cows from Holland by Mr. Winthrop W. Chenery, of Belmont, near Boston. Two of these cows were very sick when the vessel arrived in port, one of them not having been on her feet for twenty days, as was stated. It was thought by Mr. C. that the sickness was owing to the negligence of those having the stock in charge on the passage, and he attempted to recover damages, but failed in doing so.

The two sick cows were removed from the vessel to the farm on wagons as they were unable to walk, the other two being driven thither. One of the sick animals was soon after killed, recovery being deemed hopeless, and the other soon after died. In about a fortnight after, another cow of the same importation was taken sick and died in about ten days. And the disease continued to spread until Mr. C. lost 27 cattle, composed of the various breeds, the Dutch of his former importations seeming to be less liable to it than his Short-Horns and others.

About the first of July Mr. C. sold three calves, a bull and two heifers, half Dutch, to Mr. Curtis Stoddard, of North Brookfield, a young and enterprising farmer of that town. In August, several weeks after they were removed from Belmont, one of the calves was taken sick, and after lingering for several days died. Other animals of his herd were seized in a similar manner, and have died. The herd of his neighbors, exposed to the disease, have been affected by it, until it has manifested itself on three farms in North Brookfield and two in New Braintree.

Though Dr. Dadd was consulted by Mr. Chenery, from the outset, and others, subsequently, not a word about contagion was heard, until some time in August, when Mr. C. at once refused to sell any more animals, or to allow any cows to be brought to his Dutch bull. It may be interesting to add that Mr. C. lost two animals turned out to pasture after the imported cows were brought to his barn. So that in view of all the cases, there can be little doubt that the disease is contagious, though it is maintained by some in Europe that it is not, while others and the stronger part, claim that it is. The disease is called *pleuro-pneumonia* epizootic of cattle, epizootic answering to epidemic in the human family. It is not the murrain, as reported in some papers.

Mr. Chenery wrote to his correspondents in Holland, inquiring about the condition of these cows when they were shipped; whether the disease named above was prevalent among the herds from which they were selected; and also concerning the treatment of the disease. He received a reply, the purport of which was, inoculate the well with the virus of a sick animal, stating that 50 or 60 per cent had been thus saved. An account of the mode of inoculation is given in Dr. Dadd's book on the diseases of cattle.

On Friday, the 9th, a hearing was had before the Legislative Agricultural Committee, to see what can be done, or what it is best to do to immediately prevent the spread of this malignant and fatal malady among cattle. It is thought by some that the entire herds of cattle where this disease has shown itself should

be indiscriminately slaughtered, whether fit for beef or not, and that the State Legislature now in session, should make an appropriation for that purpose.

Mr. David Whiton, Hingham, Mass., has lost seven head of cattle out of eleven that have been taken sick since the first of February, with an endemic called influenza. Mr. W. takes excellent care of his herd, feeds well, keeping his stables clean and well ventilated, and his cattle daily carded. Hence the more extraordinary that such a herd should be thus attacked. The disease seems to have subsided.

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SHADE TREES IN PASTURES.—A beautiful tree with its symmetrical form, refreshing coolness, green shade, its million leaves, every one with myriads of microscopic veins and vessels, and its millions of sap-pores through the roots, trunk, and branches,—is a most wonderful and extremely interesting object, and I cannot but respect any man who admires it and endeavors to save it from destruction. But this does not vitiate fact. There may be rare and extreme cases where cattle are injured for want of shade; but careful, measured experiment,—that test of all disputed questions, when fully tried with all needed variations—has shown that cows give more milk, make more butter and cheese, and increase more rapidly in flesh, when not enticed to spend most of the day in shade, in switching, and kicking flies. Farmers, therefore, who farm exclusively for profit, will keep their fields clear of trees, for which they should compensate by ample ornamental and well planted grounds about their dwellings. But if profit is a secondary object, and the plowman is willing occasionally to encrop roots in his furrow, and the owner is willing to lose that part of his crop shaded by trees and exhausted by their roots, he can intersperse his fields with shade trees, and they will certainly present a picturesque effect.

I am aware that it has been “discovered” that pasture is frequently more luxuriant under trees, and that this has been ascribed to the enriching influence of shade—when in fact it is entirely owing to the fact that the cattle spending half their time there, have *top-dressed* it perhaps at least a hundred times as copiously as any other equal portion of the field.

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HOW MILK IS CONDENSED.—Willard Hodges, Esq., of Monroe Co., N. Y., having recently visited the condensed milk establishment of Mr. Borden, of Winsted, Conn., gives an account of the same in the *Rural New-Yorker*, from which we extract the following paragraph:

“The milk is furnished by farmers at two cents per quart in the summer, and three in winter. When delivered at the factory, it is first scalded slightly, in tin cans, placed in warm water, to remove certain impurities which would otherwise adhere to the large cast iron boiler in which the process of condensing is carried on. This boiler is made of a partially circular form, and is air-tight. After the milk is poured in, it is raised to a temperature of 140°, and no higher, and is made to boil by exhausting the air. This is done by an air pump, the machinery of which is turned by a water-wheel. By this means the evaporation of the watery portion of the milk goes on very rapidly, the temperature being so low there is no danger of burning or injury from heat. The process requires constant watching. The state of vacuum and the heat of the milk are both ascertained and regulated by ingenious contrivances; the air-pump also removes the vapor as fast as it is formed, condenses it by passing through cold water, when it runs away in a constant stream. When 75 per cent of the milk has been evaporated, the process is completed, and the milk occupying one-quarter its original bulk, in a semi-fluid state, is ready for market.”

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POTATOES FROM SPROUTS.—There is a modification of this mode, which I have found an excellent one for raising *early* potatoes. It consists simply, not in taking the sprouts off, but in leaving them on the potato. Plant potatoes *now*—the earliest moment the frost leaves the ground, and even under the snow if you please—with one row of seed sprouted two or three inches long, and the other with tubers having the sprouts closely rubbed off; the former will come up about two weeks the soonest, and maintain this superiority through the season. If seed potatoes could be started in a hot-bed, as described in this communication, so as to have strong sprouts well furnished with roots, a very early crop might doubtless be obtained. Seed enough for an acre might be thus easily prepared.

BEST FOUR GRAPES.—"The Grape Growers' Association" of Hartford, Ct., at a meeting, Jan. 10th, recommended the following varieties for general cultivation, in the order in which they are named: Diana, Hartford Prolific, Isabella, Concord.

ANOTHER FLAX MILL.—We are very happy to learn that another flax mill is about to go into operation. The locality selected, by capitalists in Toronto, in connection with others in Britain, is the flourishing village of Georgetown, where there is plenty of water power, and intelligent farmers in the neighbourhood, capable of introducing a new article of cultivation.

HOW TO GROW WATER CRESS.—Please give some directions for growing the common water cress, if not too much trouble. MRS. S. M. GORDON.

Remarks.—Gather a bunch of the cress and scatter it into a clear spring; the seeds will drop out and germinate, and by so doing annually will keep it perpetual.

GUANO.—Gen. Cadwalader, of Maryland, whose purchases of guano have amounted to \$4000 a year, recommends a single application to worn out lands, naturally of good quality; and here its use should stop; it has served its purpose, and no second dressing of guano should ever be applied.

DURABLE WASH FOR WOOD WORK.—In view of the inquiries recently made on this subject, the republication of a recipe which appeared in the fourth volume of the Horticulturist, is not out of place. This wash "owes its durability chiefly to the white vitriol, which hardens and fixes the wash."

Take a barrel and slake one bushel of freshly burned lime in it covering the lime with boiling water. After it is slaked, add cold water enough to bring it to the consistency of good whitewash. Then dissolve in water, and add one pound of white vitriol (sulphate of zinc) and one quart of fine salt. To make this wash of a handsome grey stone color, add a half a pound of French blue, and one-fourth pound of Indian red; a drab will be made by adding a half pound of burnt sienna, and one-fourth of a pound of Venetian red.

HOP CULTURE—PREPARING THE GROUND AND CULTIVATION.

The steadily increasing demand for hops for the manufacture of beer and ale, and also for exportation, makes it of some importance to the hop grower, either present or prospective, to become acquainted with the various methods of culti

vation, in order to experiment, compare and choose the best system of management that can be adopted at the present time. Whether I can suggest any improvement, may be a matter of opinion till after it be tried; but as my experience has been materially different to such as I have seen related in other Agricultural Journals, I will offer it to the readers of the Co. Gent. for their consideration.

Kind of Soil and its Preparation.—The hop grows in its wild state on the banks of rivers, frequently in company with the salix or common willow, generally on rich alluvial soil, which indicates its preference for rich soil, and shows that good deep soil is the best for its growth. I prefer a retentive or moist soil, rather than a dry one, as is generally recommended, because the hop, like the grape-vine, absorbs and gives off an immense amount of water. A dry soil may produce hops that have a smaller proportion of vine to hops, than those grown in more moist ground; but the point with me is, which kind of soil will produce the greatest weight of hops to an acre. I say rather low moist ground, in proof of which I raised, 1,235 pounds the first year of pulling, on an acre of ground in 1854, which netted me nearly \$410.

New ground is best if procurable; rich ground is in any event indispensable. It should be clean, free from roots, stumps, and stones and sods, and well pulverised. There is a difference of opinion as to the best width for the rows. They may vary from six to eight feet, according to the richness of the soil, being widest on the best, because here they will attain the tallest growth and shade the most ground. Ridge up or gather the ground to the lines of the row, dragging well before plowing, and lightly afterwards, and the ground is ready for marking.

I prefer square planting to the break-joint or quincunx form, because it saves much expense in cultivation, especially in the early stages of growth. And however it may be as to the roots—there is no advantage from the row and space plan, in the matter of spading. The rows must be precisely straight, and a small stick placed where each root is to be set and subsequently become a "hill" as we call them. The cuttings vary from two to 4 dollars per 1,000 according to the ruling price of hops; and cuttings with *three eyes at least*, generally from four to six inches long, are taken from the roots. We will revert to cuttings hereafter. Supposing the cuttings fresh, with good eyes, ready to set there is a very wide difference in the mode of setting out.

Usually cuttings are put two or three in a slight excavation made with a hoe, being laid horizontally across one another, and then covered with a few inches of the finest mold at hand. I object to any such hasty slovenly planting, for several reasons. 1st. Roots so planted sucker very much. This causes much extra trouble in working and keeping the ground clean. 2nd. The suckers weaken the bearing vines and lessen their growth, and the yield of hops also. 3rd. A plantation so set out will be worn out in ten or twelve years; but if properly propagated it may endure half a century or more. In England they are set out thus, I believe: an excavation being made on the ridge, four cuttings are held with one hand, their tops of equal height, mold being drawn about them with the other—and more over and about them afterwards with a hoe.

The plantation that I owned were set out on a *theoretical* plan of my own. I wished to prevent suckering, and throw the strength of the root into the bearing vines. Had I consulted practical men, as I did, or rather imitated them, I should *not* have succeeded in this. I therefore theorized, and then made a hole a foot deep where each hill of roots was to grow, with the pole bar. I then commenced setting, being careful to prevent the roots getting too dry. The cuttings being of unequal length, I took the tops of four in the left hand, putting the other ends into the hole, and then filled in fine mold with the other hand and then pressed it down; then covering with two inches of fine mold and pressing

again with the back of the hoe. The sticks, from four to six feet long, are taken and stuck in a line near where the holes are barred. They thus serve for the vines to coil about the first summer after setting out. I think hops thus set will not sucker; at any rate, my yard did not during the three years that I owned it, after setting out in this way.

The first year the ground must be kept clean, whether it requires as much or more working than corn. The best implements for corn culture, are, for the same reason, the best for working the hop-yard, and the square form of planting Mr. W. H. Brewer at Yale, to the contrary notwithstanding—will be found the most economical to manage and cultivate.

In England, it seems, or in some hop districts there, hops are cut in the spring. On this continent some cut in spring, others in the latter end of the fall. With us, growth, as naturally would be supposed, is much more rapid, though commencing later, after it does begin in the spring, than in the mother nation. I rather incline therefore, and for other implied reasons that will suggest themselves, such as bleeding, &c., to cutting in the fall. Cut off close to "the crown" or head of the original roots, smoothly and evenly, and cover with a little mold.

The second year hops are polled with poles from 12 to 18 feet long, according to the strength of their growth or quality of soil; 14 to 16 feet is long enough on ordinary hop land. They are ready to pole when two inches high. Some put two, others three poles to a hill; two will carry vines enough, if a permanent plantation is required. The poles are set about 15 inches apart, on either side of the roots, and in straight lines both ways—firmly and at one thrust. There is more art than theory in this. Experience with a bar and pole will supply a pretty good idea of the latter in a short time. The vines are tied three times, or ought to be. Old woolen stockings supply good tying yarn, woolen being more elastic than cotton string or yarn. Tie when 12 to 18 inches high; again at 2½ to 3 feet, and the last time when they appear to straggle rather than climb and twine about the poles.

It is usual to allow three vines to one pole, and two stronger ones to the other, the vines of each pole being selected of as near the same size as practicable. Lateral branches are pinched off as high as six or seven feet, and it is a good policy to work the ground the last time, the ground being plowed twice *towards* the poles, besides being kept clean with cultivator and hoe—just when the blossoms begin to open. Working at this juncture, experienced brewers assure me, improves the flavor and quality of the product. Care must be taken, however, not to bruise the vine or shake the poles. I will offer some remarks on ripening, picking and curing, hereafter. The poles are piled soon after picking, when the vines are stripped off, about 200 in a pile; the earlier the better for the duration of the poles, which are in some places costly. Ash, Tamarack, and it is said in England, the White Huntingdon or Snap Willow, are all good for pole material.

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MAPLE SHADE TREES.—Those who think of adorning their farms with rows of maple trees along the roadside will find a valuable suggestion in the following from the Ohio Farmer:—"One mistake often made in attempting to plant out this beautiful tree for a shade, is choosing such as are too large, and that have grown in the thick woods. It is much better to dig up the smallest seedlings from the woods or fields, and give them the benefit of nursery culture for two or three years."

FEEDING COTTON SEED MEAL.—S. A. P., in the No. of the Co. Gent. for March 15th, asks for experience in feeding cotton seed meal. He shall have mine.

Winter before last I had no corn to feed to my cattle, and I procured from St. Louis a ton of the cotton seed oil meal. I commenced feeding to my cattle about a pint at a feed. This I increased until they received by the second week about a quart at a feed.

The cattle, consisting of three yoke of work cattle, one bull, two cows and a calf weaned, improved wonderfully. They became fat and sleek. The cows increased the yield of milk in two weeks to double the quantity given before the oil meal was fed. They come out in the spring in tiptop order. As an adjunct in feeding, or in place of corn, or with it in moderate quantity, I consider it an invaluable feed. To those who wish to fatten cattle during winter, I can recommend the use of cotton seed oil meal. *Prairie Cottage, Ill.* H. HINKLEY.

MILLET FOR MILCH COWS.—Elijah Wood, Jr., of Concord, Mass., who has been for twenty years in the milk business, said (as reported in the N. E. Farmer,) at a recent agricultural meeting in Boston, "If I can attribute my success to any crop, it is millet. I first cut two tons of millet, and soon increased it to twenty tons. * * Millet is not so good as English hay, but it is worth two thirds or three-fourths as much." He sows three pecks of seed to the acre. Mr. W. commenced with four cows, but in fifteen years kept twenty-four cows on the same farm, and is now keeping 80 head of cattle, having leased another farm.

A BACHELOR'S HEART, TO BE LET AS A FARM.

To be let on a lease, a desirable farm,
 Now one half in *fallow*, the other *old meadow* ;
 To be entered upon at the Michaelmas term,
 When the interest expires of an out-gowing widow,
 Who held it one year as a tenant at will.
 But of late was evicted for farming it ill.

The homestead and fences are quite in repair,
 Where no one must enter to plunder or burn ;
 And, treated with wisdom, affection, and care,
 The soil will ensure a most grateful return.
 A good solvent tenant, with means at command,
 Will find it all sound and improvable land.

The lease will extend to a ninety years' course,
 With power of renewal when same shall expire ;
 And the tenant must take it for "better and worse,"
 As entered once thereon she cannot retire.
 No offers accepted from widows encumbered,
 Or spinsters whose summers have thirty outnumbered.

Bachelor's Hall, Oct. 24th, 1859.

THE FARMERS' JOURNAL.
MONTREAL RETAIL MARKET.

	BONSECOURS.			
	FLOUR.		GRAIN.	
	s.	d.	s.	d.
Country Flour, per quintal	14	0	15	0
Oatmeal, per quintal	10	6	11	0
Indian Meal, per quintal	0	0	0	0
GRAIN.				
Wheat, per minot	0	0	0	0
Oats, per minot	2	0	2	1
Barley, per minot	3	9	4	0
Pease, per minot	3	9	4	0
Buckwheat, per minot	3	9	4	0
Indian Corn, yellow	5	0	5	6
Rye, per minot	0	0	0	0
Flax Seed, per minot	5	6	6	0
Timothy, per minot	14	0	15	0
FOWLS AND GAME.				
Turkeys, (old) per couple	5	0	7	6
Turkeys, (young) per couple	0	0	0	0
Geese, (young) per couple	4	0	6	0
Ducks, per couple	2	6	4	0
Ducks, (wild) per couple	3	0	3	6
Fowls, per couple	2	6	3	0
Chickens, per couple	0	0	0	0
Pigeons, (tame) per couple	1	3	2	0
Pigeons, (wild) per dozen	2	6	3	0
Partridges, per couple	0	0	0	0
Woodcock, per brace	0	0	0	0
Hares, per couple	0	0	0	0
MEATS.				
Beef, per lb	0	4	0	9
Pork, per lb	0	5	0	7
Mutton, per quarter	5	0	7	0
Lamb, per quarter	2	4	0	0
Veal, per quarter	5	0	12	3
Beef, per 100 lbs	35	0	40	0
Pork, (fresh) per 100 lbs	35	0	38	9
DAIRY PRODUCE.				
Butter, (fresh) per lb	1	0	1	1
Butter, (salt) per lb	0	8	0	9
Cheese, per lb, skim milk	0	0	0	0
Cheese, per lb, sweet do	0	0	0	0
VEGETABLES.				
Beans, (American,) per minot	0	0	0	0
Beans, (Canadian) per minot	7	6	10	0
Potatoes, (new) per bag	3	9	4	6
Turnips, per bag	0	0	0	0
Onions, per bushel	0	0	0	0
SUGAR AND HONEY.				
Sugar, Maple, per lb, (new)	0	4½	0	5
Maple Syrup per gallon	0	0	0	0
MISCELLANEOUS.				
Lard, per lb	0	8	0	9
Eggs, per dozen	0	8	0	9
Halibut, per lb	0	0	0	0
Haddock, per lb	0	3	0	0
Apples, per barrel	10	0	20	0
Oranges, per box	0	0	0	0
Hides, per 100 lbs	0	0	0	0
Tallow, per lb	0	4½	0	5
BREAD.				
Brown Loaf	0	10	0	0
White Loaf	0	9	0	0