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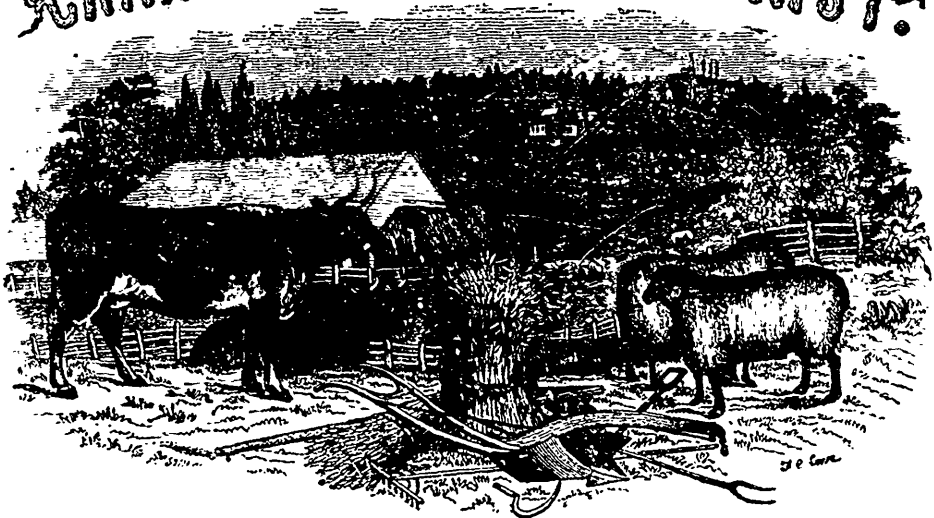
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# CANADIAN AGRICULTURIST.



"The profit of the earth is for all; the King himself is served by the field."—ECCLES. v. 9.

GEORGE BUCKLAND,  
WILLIAM McDUGALL,

EDITOR,  
ASSISTANT EDITOR.

VOL. III.

TORONTO, MAY, 1851.

No. 5.

## The Canadian Agriculturist.

Published Monthly, at Toronto, C. W.

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### AGRICULTURAL OPERATIONS FOR MAY.

This is a busy month for the Canadian farmer, who has to employ every moment in bringing to completion the various important operations of spring. It is generally a matter of great moment to sow all kinds of crops as early as the weather and state of the soil will admit. Peas and oats should have

been got in last month, and the sowing of barley and all sorts of grass seeds should now be completed as quickly as possible. Barley, as we observed in our last, requires a good soil and thorough preparation, or a heavy yield, even in the most propitious seasons, will be quite out of the question. Grass lands intended for hay should be carefully cleared of stones and all kinds of rubbish, which offer such serious impediments to clean mowing; and wherever rough manure is employed, it should for the same reason, as well as for the benefit of the crop, be thoroughly worked into the land. In a word, the improving farmer should now do his utmost to give a sort of *general finish* to his fields, crops, fences, &c., which will impart an air of neatness to his farm, during the rest of the year, and materially aid the progress and amount of his crops.

If cattle have been properly cared for during the winter, the advantages will now be apparent, in their healthy condition and improved monetary value. Lambs and calves should continue to receive special attention, or the finest individual

specimens of the best breeds will be irreparably injured. A sufficiency of nutritious food to the dam, is the chief means of promoting the growth and strength of the progeny. The milk of the mother, when properly fed, contains all the essential ingredients for building up the healthy structure of her young; it is in fact a chemical compound, nicely arranged, and wisely adapted to that object. *Milk*, therefore, constitutes the natural food of all our young domesticated animals; and the humane and profitable farmer will make such provision as will ensure them a *sufficiency* of it. But this cannot be done without providing an adequate amount of nutritious fodder, previous to the setting in of our severe and protracted winters.

We are here reminded, and could wish to impress the idea on the mind of the reader, of the intimately natural relation that subsists between the profitable rearing and fattening of stock, and improved tillage. Slovenly cultivation is quite inimical to the rearing of thrifty cattle, even of native breeds; much more of such as are denominated improved, or pure. The field and the cattle yard, act and react upon each other. We have known experienced agriculturists in England, who, in order to judge of the character of a man's farming, that is cultivation, would be content to look into his folds and cattle pens; for if the live stock be all right in amount and condition, the chance is very small indeed, that the rotation and culture can be very wrong. This principle, it should be remembered, is not confined to the British Islands, but is of universal application.

The advantage to a farm of a large number of good and well fed animals, with reference to *manure only*, is understood and appreciated by intelligent and improving cultivators, upon all soils, which a course of cropping has reduced from their pristine fertility. However valuable and indispensable may be the mineral manures, most farmers, especially in a country like Canada, must mainly look to their compost heaps, formed chiefly of animal and vegetable substances, for sustaining the general fertility of their fields.

Entertaining these views, we strongly recommend an extended culture of root and forage crops. The object of the farmer should be to obtain the greatest amount of produce from the smallest space; hence the necessity of a liberal dressing

of manure and thorough cultivation. Not a day should now be lost in giving to the land intended for such crops, the last preparatory finish. Most failures are traceable to sowing too late, or insufficient attention to the preparation of the ground and the subsequent management of the crop.

Potato planting should be brought to a close as speedily as possible; the experience derived from extensive observations, in various parts of the world, during several years past, clearly shews the advantage of early sowing, in order to secure a healthy condition of this valuable esculent. The greatest care should be taken in selecting suitable varieties, and sound and ripe seed. The application of large quantities of strong putrescent manures, has been found favorable to the development of the potatoe-disease; whereas quicklime, wood ashes, &c., may be regarded as favorable to the healthy growth of the plant.

In conclusion we strongly recommend to our readers, in all sections of the Province, an extended culture of that invaluable plant—Indian Corn. Several varieties suited to our climate have been already introduced, and where proper attention has been paid to the cultivation and management, a remunerating return has, in ordinary seasons, been made. In situations where early frosts in autumn render the ripening of this crop uncertain, it might be advantageously grown for the purposes of fodder; indeed we think that there is no part of Canada, where Indian Corn might not be profitably raised for the purpose of summer or winter feeding of cattle. We would like to be favored with the experience or opinions of any of our readers on this subject.

#### WORK FOR THE MONTH.

The season has been in some respects an early one in Canada. Ploughing has been extensively prosecuted, while the operations that follow it are in arrears. In this neighborhood vegetation has advanced slowly in consequence of the cold, raw weather, and in this respect we do not regard the Spring as an early one. The following remarks which we copy from that well conducted journal the *Working Farmer* will suit in Canada for the early part of May.

The dates mentioned may all be regarded as three or four weeks later for this region,

**GENERAL FARM WORK.**—Early part of this month light sandy soils intended for general crops may be plowed, and indeed spring plowing for sandy soils is preferable to fall plowing; for although clayey loams are benefited by winter ridging and the consequent pulverization from frequent freezings and thawings, still sandy soils would not be improved by similar treatment, as they would suffer by working, &c.

Although clayey soils, as well as all others, should be plowed as early in spring as practicable, still they should not be disturbed while *wet*. The action of the plow is to compact them in lumps, and thus render them unkind and non-absorbants.

Such fields as were plowed last month, but are not yet planted, should be run through by the cultivator immediately before planting, so as to have the surface of the ground thoroughly disintegrated just before sowing the seed; such fresh surface insures rapid vegetation, and buries half germinated weeds too low to interfere with the regular crops. Top-dress winter grains as you now wish to press forward the plants, which could not be done with propriety in the fall, for fear of their being too forward, and thereby more liable to be winter killed.

Attend to water courses, drains, &c., as during the early freshets your mowing grounds may be rendered uneven in growth, by uneven irrigation. If the season has been backward, you may still sow spring wheat, barley, oats, rye, field peas, &c. Beans, early potatoes, &c., may now be sown. Flax and hemp sow. Attend to pastures. Do not turn cattle too early into pasture grounds before the grass has had time to start fairly, and the ground has become sufficiently hard not to be disfigured by them. If you intend to fatten cattle in the fall and winter, you should now plant out carrots, parsnips, &c. You can raise eight hundred bushels of Belgian carrots to the acre, and they will do more service for your cattle and milch cows than four times the quantity of ground appropriated to either hay or corn crops. Cleanse cellars from putrescent substances; plant Indian corn; sow Lucerne; attend to the extermination of insects, &c.

**KITCHEN GARDEN.**—This is the month for gardening. All esculents intended for raising seed should now be in the ground, and if not done before, do not delay. Be sure they are not in the vicinity of others of the same genus, or they will be sure to hybridize and thus spoil each other.

Keep the unplanted soil in motion, and hoe and weed former plantings. Make artichoke plantations; asparagus; beet seeds; sow late

broccoli; start summer cabbage, cardoon, carrots, celery; sow cress; start cucumbers and melons in frames ready to put out in settled weather, (pots.) sow endive; make plantations of horse radish; plant corn; sow leek seed, lettuce, mustard seed, nasturtium; sow onions early both for crops, and closely for pips for next year's planting; put out pips of last year's growth, also top and potato onions; parsley; parsnips; plant peas, potatoes, sweet potatoes; continue to sow radish seed; plant rock-mare, rhubarb, salsify, sea kale, spinach, tomatoes; sow turnip seed, caulorapa, brassica rapa esculenta, &c.; pot herbs, &c.

Attend to dressing artichoke and asparagus beds, &c. Plant medicinal herbs, &c. Transplant from hot beds to open ground, lettuces, cauliflower, broccoli, cabbages; and in proper weather egg-plants, peppers, tomatoes, &c., &c.; pumpkins, squashes, &c. During dry days, water seed-beds, late transplantings, &c., until established.

Plant Lima beans, melons and cucumbers in pots under frames, ready to set out as soon as the weather is permanently settled. Those who have no hot-beds or frames, may turn a sod upside down, in a shallow box, and then cut the sod with a sharp knife in lines to inches apart, and running in both directions across the box, thus it will be cut in squares; plant a lima bean in the manner directed in our article on the kitchen garden; place this box opposite a window in a warm room, and plant out the squares around the poles when the weather is permanently settled.

**ORCHARD.**—Look well to peach trees, and see that the peach worm is not at work. Pour boiling water on the lower part of the trunk near the ground, and if a sufficient quantity be used it will *cook* the worm without any injury to the tree; we have tried it fairly, and are well convinced that even three gallons of boiling water may be so used without any injury to trees.

If the shortening in of peaches, apricot, and nectarine trees, was neglected last month attend to it this month.

Manure tress and recollect that they require cultivation. Attend to propagation of scions early and graft such trees as require it. See *Downing's Fruit Trees of America* on this subject.

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To injure a man's sight, there is nothing worse than sudden wealth. Let a woodsawyer draw a ten thousand dollar prize, and in less than a month he will not be able to recognize the man that "used to go security for him."

## PROVINCIAL AGRICULTURAL ASSOCIATION.

A meeting of the Directors of this Society was held in the Court-House at Brockville on the 19th ultimo, for the purpose of forming the Local Committee and for making the necessary preliminary preparations for the next Exhibition. Present, J. B. Marks, Esq., President; Wm. Matthie, Esq., Vice President; Henry Ruttan, Esq., Ex-President; R. L. Denison, Esq., Treasurer, and Mr. Buckland, Secretary. The office-bearers were met by a number of gentlemen belonging to the Town and neighborhood of Brockville, who evinced the warmest interest in promoting the objects of the Association.

The first business was the formation of the Local Committee, which consists of the following gentlemen:—

George Crawford, Chairman.

James Crawford, Treasurer.

D. Wylie, Secretary.

George Sherwood,  
J. L. McDonald,  
Charles E. Jones,  
Robert Watson,  
O. R. Gowan,  
R. Coleman, jun'r.,

Henry Freeland,  
Dr. Reynolds,  
George Morton,  
D. B. O. Ford,  
H. D. Jessup.

*Ex-Officio Members.*

J. B. Marks, President.  
T. C. Street, 1st Vice-President.  
W. Matthie, 2nd Vice-President.  
R. L. Denison, Treasurer.  
G. Buckland, Secretary.  
E. W. Thomson, ex-President.  
H. Ruttan, ex-President.  
Hon. A. Fergusson, ex-President.

The meeting then adjourned in order to inspect the ground around the town, so that the most favourable site might be obtained for the Exhibition. When the meeting resumed, it was moved by R. Watson, Esq., seconded by Dr. Reynolds, and

*Resolved*, That the time for holding the Provincial Exhibition be altered from the 17th, 18th, and 19th to the 24th, 25th, and 26th of September, and that the Secretary of the Provincial Association be requested to communicate the alteration to the Secretary of the New York State Agricultural Society, expressing at the same time our regret that that Society should have chosen to fix the same period for their Exhibition, as that previously decided upon by this Society; and that this resolution be submitted to the meeting of Directors to be held in Toronto in June, for their approval.

Moved by Dr. Reynolds, seconded by G. Sherwood, Esq., and

*Resolved*, That the site offered by C. E. Jones, Esq., on the elevated ground near the English church, be fixed upon for the Exhibition.

The Committee then examined last year's premium list, and suggested several alterations and additions for the approval of the Directors, who will meet for that and other purposes connected with the Association, on the 10th of June, in the City of Toronto. The premium list will be issued immediately after; in the mean time it will be satisfactory to the public to be assured, that the Directors have good reason to hope that they will be enabled to offer this year a larger amount in prizes than heretofore. To secure, however, this most desirable object the liberal aid of societies and individuals is indispensable; and most earnestly is it to be hoped that such aid will not be withheld. The Town and District of Brockville have handsomely contributed, as have also several societies, and such as have not yet made any grant are respectfully requested to do so without delay.

We have said that the Directors were received at Brockville in the most cordial manner, the mention of one proof out of several will be sufficient.

In the evening they were invited by the officers of the Johnstown Agricultural Society to a dinner at Wilson's Hotel, which was got up in excellent style; George Crawford, Esq., occupied the chair. Several toasts were given and responded to by Messrs. Marks, Ruttan, Matthie, Buckland, Sherwood, Jarvis, Jones, Denison, Gowan, Hough, Watson, Dr. Reynolds, &c. The evening was spent in the most agreeable manner; the objects of the Provincial Association were kept specially in view; and from this friendly and auspicious commencement, the most gratifying and satisfactory results may be confidently anticipated from our next annual gathering on one of the most interesting and picturesque spots to be found on the majestic St. Lawrence.

## IMPROVEMENTS IN AGRICULTURE.

During the session of the Legislature of New Jersey, we have sojourned at Trenton for the purpose of placing before the members such evidences as we could furnish, in favor of the appointment of a State Agriculturist. The Bill was presented in the Senate and lost by a *tie vote*, a majority of the whole number being required to pass a bill. The bill would undoubtedly have passed, if other appropriations of a more popular character, requiring large expenditures, had not

rendered the small amount asked for by the farmers an additional cause of alarm to those politicians who feared being charged with having emptied the Treasury. Among these may be named the House of Refuge, requiring an appropriation of \$30,000, and the Common School Bill, requiring a still larger sum. Among those who voted against the bill, we knew of but three who did not express themselves favorable to its passage on its merits, but feared to make any further appropriations at present, and hence, from this fear, the petition of 4000 citizens of New Jersey, 3000 of whom were farmers, was rendered unavailing, and the greatest interest of the state, furnishing nine-tenths of all the taxes paid, is compelled to forego the passage of the only bill they have ever asked for their especial benefit, because a few politicians feared they would be rendered unpopular through the efforts of their political opponents presenting a diminutive treasury, as compared with that of the previous year.

Many farmers who had attended our lectures in different parts of the State, came to Trenton to advocate the Agricultural Bill, and with one accord they represented that the crops of those who had adopted our recommendations had been materially increased, without a corresponding increase of expenses.

Indeed, several members of the House of Assembly were themselves witnesses of similar results on their own farms and in their own neighborhoods; and had the bill passed the Senate, it would have been passed in the Assembly by a large majority.

Within the last three years we have visited many farms in New Jersey, and some of the owners of these farms sent certificates of results to Trenton. One represented that under our advice he had added the missing constituents to his soil, at an expense of only \$4,12½ per acre, with proper tillage, and produced, in consequence, the following crops:—Corn 128 bushels of ears per acre, were formerly, with much larger expenditure for manures, but 30 bushels of shelled corn had been produced. Potatoes 310 bushels per acre. Mangold-wurtzel 16 tons per acre, and other crops in proportion. Another (a member of the House of Assembly) represented that on a piece of ground in Passaic County which had been considered of very inferior quality and unworthy cultivation for corn, he had raised, by adding the missing constituents of his soil, under our advice, 138 bushels of ears of corn per acre, and that his crop of long orange carrots averaged 600 bushels per acre, and that the expenses for fertilization were less than ordinary method by barn-yard manuring.

Another farmer from Monmouth County, represented that by the use of the sub-soil plow, under a recommendation contained in one of our lectures, on a field of twenty acres, and by the application of decomposed bog on another field of similar size, he had increased his corn crop each from 20 to 25 per cent.

Another farmer of Freehold represented that he had raised between 4000 and 5000 cabbages on half an acre, and at the prices at which he had made sales, the returns were at the rate of from \$400 to \$500 per acre. This land was thrown into garden heart at one operation, and the land left in so improved a condition after the cabbage crop, as to be benefited for future crops more than the whole crop of fertilizers used for cabbages. Many other farmers reported large crops resulting from our advice, and from some neighborhoods large numbers signed statements that the whole crop of the township had been materially increased by our efforts. It was also shown to the Legislature, that we had taken the first premium for our market garden from the American Institute, and that we had raised 1500 bushels of parsnips, 900 bushels of carrots, 800 bushels of ruta baga turnips per acre, and other crops in proportion, but all these facts could not avail in causing the Senate to appropriate a sum only equal to the necessary expenses of a State Agriculturist during the delivery of five lectures in each county in the State.

We asserted, without fear of contradiction, that in no case where we had been furnished with an analysis of the soil, had we failed in increasing the income of the owner more than one-third, and this too, after having advised under such circumstances more than one hundred farmers in New Jersey.

Some members could not believe that we had discovered so much that was new as to enable us to produce such results, and they were right. We do not claim any such credit, but simply that we have put in practice what is well known to the few among the many. We often hear of large crops raised by individuals, whose neighbors produce no such results. In such cases, we visit the growers, and find out, if practicable, their methods, manners, &c., and then by an analysis of the soil, compared with that of the crop, are enabled to advise others so as to enable them to produce similar results. We claim no originality, but merely with the assistance of chemistry, to be able to duplicate on any soil containing a fair average of constituents, the same results which may have been produced on any other soil—all of which may be done by adding the missing constituents to the soil, with such cultivation as the peculiarities of the crop, mechanical condition

of the soil, &c., may require. The Bill referred to will undoubtedly pass next year, and we hope to hear of similar movements in many other states.—*Working Farmer.*

#### BUTTER MAKING.

We find in the *Albany Cultivator* for May a portion of a valuable and interesting report on the manufacture of butter, which was made last season to the Worcester County (Mass.) Agricultural Society, by John W. Lincoln, Esq. The first requisite laid down for the production of good butter, is *good pastures*—such as produce a sweet and plentiful herbage. White clover and the finer grasses are recommended, and it is important that there be good water at all times accessible to the cows.

*Good cows* are the second requisite. On this point it is observed—

“There is believed to be a much greater difference in the quality of cows for the butter dairy, than has generally been supposed. It is known that some cows yielding a larger quantity of milk—are of but little value for the making of butter. It appears by the certificates of competitors for the premiums offered by this Society in 1848, for milch cows, that the weight of milk required to make a pound of butter, varied from 17½ lbs. to 30½ lbs., and these cows, at least in the estimation of their owners, were considered extraordinary animals, as they were offered by them for premiums. The Chairman owns a cow, from less than six quarts of whose milk, one pound of butter was obtained, and has had others, which were considered good cows, the milk of which would not give a pound of butter to twelve quarts; and it is believed the latter quantity is better than is obtained from the average of the cows of this county. Every farmer should make trial of each of his cows separately, and if she is found not to give rich milk, she should be sold or exchanged with one who, for other purposes, may deem quantity of milk of more importance than the quality of it. For the purpose of testing the quality of the milk, a lactometer is a convenient and not an expensive instrument. Good milkers, both as regards quantity and quality, are frequently met with, and their valuable properties, it may reasonably be expected, will be transmitted to their descendants; calves from such mothers should never pass into the hands of the butchers. The quantity and quality of milk may be greatly improved by attention to the feeding of the cow; she is the machine in which the milk

is manufactured, and those who wish an abundant supply of that, which is good, must see that the animal has a liberal supply of suitable materials from which to make it.”

In regard to churns, it is mentioned that there is much difference in the quantity of butter which is produced by the various kinds, from the same quantity of cream. The results of some comparative trials with Galt's and Robbins' churns, are given, in which the former appeared to have considerably the advantage in this respect. A churn called “R. W. Davis' patent self-adjusting churn,” is highly recommended. It is said to churn, gather, and work the butter without its being taken from the churn and without being touched by the hands. As a churn, it is said not to be inferior to any of the rotary churns, and being able to work the butter, it is thought to have a great advantage over all others known to the author of the report. The price is said to be \$1,50 to \$6,50, in proportion to size. They are made by Fairbanks & Stone, Westboro, Massachusetts.

*Rapidity of Churning* is discouraged, as tending to produce an inferior quality of butter. On this point reference is made to Prof. Norton's *Elements of Scientific Agriculture*, as follows:

“Several churns have been exhibited lately, which will make butter in from three to ten minutes, and these are spoken of as important improvements. The most carefully conducted trials on this point, have shown that as the time was shortened, the butter grew poorer in quality, and this is consistent with reason. Such violent agitation as is effected in these churns, separates the butter, it is true, but the globules are not thoroughly deprived of the casein which covers them in the milk; there is consequently much cheesy matter mingled with the butter, which is ordinarily soft and pale, and does not keep well. Until the advocates of very short time in churning, can show that the butter made by their churns is equal in quality to that produced in the ordinary time, farmers had better beware how they change their method, lest the quality of their butter, and consequently the reputation of their dairy, be injured.”

*A brake* is recommended for working butter, instead of the hands. A wooden table is thought preferable to marble, to work the butter on.

The mode of manufacture practised by Charles E. Miles, whose butter was pronounced of very superior quality, is in substance as follows: The cream is not allowed to change by standing, before it is churned. Crowell's Cylinder Thermometer Churn is used. After the churning is well done, the buttermilk is drawn from the churn, and cold water put therein, and the butter thoroughly dashed to extract the buttermilk. [It is proper to remark, that the chairman of the committee who made the report, objects to the use of water for this purpose, as "wholly unnecessary, and prejudicial to the butter."] The butter is then seasoned with salt—about an ounce of salt to a pound of butter; it is then thoroughly worked upon a butter table, by the aid of a brake—not allowing the hand to come in contact with the butter. By the use of butter-paddles, it is then moulded into pound lumps, and fitted for the market.

*Good salt* is regarded as of much importance. It varies much in strength, and none but that which has been proved to be good, should be used.

*Vessels for keeping.* Stone pots are recommended for this purpose, in preference to wood. If wood firkins are used, they should be made in the most thorough manner, and be thoroughly soaked in strong brine before the butter is put into them.

*A good milk-cellar* is thought of great importance.

"It should be cool, having windows to allow a free circulation of air. To prevent the admission of the rays of the sun by the windows, and thereby render temperature in the cellar less cool, it would be well to have blinds secured with hinges to the building at the upper side of the blind, that it may be turned up against the building and buttoned there when not in use, and when wanted let down to a horizontal position, where it will be retained by resting on stakes at its extreme corner, in which situation it will screen the cellar, and at the same time allow a free circulation of air. The milk vessels should not be allowed to stand on the bottom of the cellar, but should be placed on shelves suspended from the top in such manner that the milk may have the benefit of the pure air. Care should be taken that no milk be spilt, or any thing allowed to be therein that may produce any unpleasant smell, which will be sure to taint the milk and thereby injure the butter."

Lastly, *a good dairy-woman* is considered of more importance than all.

"On her skill and good management frequently depends the question whether the farmer is to obtain the highest market price, or a sum insufficient to pay for the labor bestowed in making the butter. The most perfect cleanliness must be observed in all the stages of its manufacture. The pan and pails, should be frequently washed, scalded, and sunned, and all the utensils kept perfectly sweet."

#### INDIAN CORN FOR FODDER.

The practices of raising Indian Corn to be fed to stock in an immature state, either green or dried, is not uncommon. It affords more forage, probably, than can be obtained from any other crop. It has been generally sown broadcast, harrowing in about two bushels of seed to the acre. But experience has proved that it is a better way to put the crop in drills, on account of the advantage it gives for destroying weeds. In broadcast sowing, the weeds often get the start of the corn, and prevent its growth, more or less.

In drill planting, the seed may be put in with a machine, drawn by a horse, by which the work is executed with dispatch. The rows may be from two to two and a-half feet apart, and it is best to use seed enough to have the stalks thick and fine, as such are eaten better by stock than larger ones. The crop may be kept clean by the cultivator, which should be passed through the rows as soon as the corn is fairly above ground.

The value of the crop depends somewhat on the variety of corn chosen. It is sometimes recommended to take the large southern corn, for this purpose. It may give as large, perhaps a larger crop, but stock do not like it as well. The best variety is the common large sweet corn. It makes a good growth, tillers, or suckers much, and the fodder has a peculiar sweetness which induces cattle to eat it with more avidity than they will eat that of any other kind of corn. A farmer in this vicinity who planted considerable corn last year, for feeding out while green, had three kinds of seed; southern, yellow or Dutton, and sweet corn. He began cutting the sweet, using it to feed stock which was to be exhibited at the State Fair. They ate every bit of it with a good relish; but when the sweet corn was gone, and the usual quantity was cut and fed from the Dutton and southern, the cattle discovered the difference at once. They smelt it over, tossed it about with their noses, and finally would not eat it without wasting more or less. The same thing has been noticed with hogs, when the corn



crop has been cut up and fed to them while the ear was soft. They would eat the sweet corn, stalk and all; but would leave much of the other, though both were in the same state of ripeness.

The Indian corn plant, in its green state, contains so much sap that it is with difficulty dried so that it will keep well—it is very liable to become sour and mouldy, in the barn or stack. On this account many do not attempt to keep it till winter. Its use, however, as green forage, is every year increasing. Dairymen find a great advantage in feeding it the latter part of summer and in autumn, when grass is generally short, and often very scarce, from the effect of drouth. For this purpose it is sown at intervals in June, and as late as July, on good ground, and the crop gets forward so that it may be cut in August; and as the lots from the different plantings come in successively, they may afford a regular supply till hard frosts come. It is fed in mangers, in yards or sheds, or carried to grass fields—cutting it in such quantities as are needed from day to day. It may be cut, if required, when it is not more than a foot high, as in such cases it will start again and afford a second cutting; but it is deemed best when the stalk is fully grown and the grain is beginning to form. If the crop is to be dried for winter use, it is best to let it stand till the top or “spindle” begins to die, as it will then contain less water, and can be cured with less labor. A good mode of curing, is to cut it in fair weather, let it lie (as thin as possible) and wilt one day; then bind it in small bundles, putting the band as near the top as practicable, and gather the bundles into small shocks, open at the bottom, and let them stand till sufficiently dried to be put in the barn or stack.—*Albany Cultivator*.

#### QUANTITY OF FLAX-SEED FOR AN ACRE.

The *Albany Cultivator* in answer to a correspondent remarks that the quantity of flax-seed proper for an acre may vary according to the object. If the crop is destined for seed, it is probable less than a bushel might give as large a yield as more; but if lint or fibre is the object, more seed would be required. We notice in the report of a discussion at a late meeting of the Council of the Royal Agricultural Society, Mr. Marshall, M. P., said—“With regard to thick and thin sowing, that question had reference to the object of the cultivator, namely, whether a fine fibre and little seed were required, or a coarser fibre with a full crop of seed. On the banks of the Lys, in Belgium, where the finest flax had been grown for centuries, and used for making the finest lace, they practised thick sowing,  $3\frac{1}{2}$

bushels per acre, and obtained about 14 bushels of seed per acre; but the stems were long and straight, without branches, and the longest fibre was obtained. In Ireland and Russia thin sowing was practised, from 2 to  $2\frac{1}{2}$  bushels per acre, and from 16 to 20 bushels of seed were obtained; but the stems of flax branched out more, and an inferior fibre was the result.

#### PRIZES FOR THE IMPROVED BREEDS OF CATTLE.

*To the Editor of the Canadian Agriculturist.*

SIR,—I was asked by a gentleman of considerable experience in England with all descriptions of cattle, why more premiums were allowed to Durham cattle than other pure breeds?—The Royal Agricultural Society allowing the same amount for Herefords and Devons as Durhams? If any one will state why the latter are more deserving preference in Canada than in England, I may trouble you with some reasons to prove the contrary.

I am Sir,

Your obedient servant,

DAN'L TYE.

Wilmot, April 7th, 1851.

[Our pages are open to the discussion of the questions involved in the above communication; and we shall be happy to hear again from our correspondent. The principal reason why the Provincial Association offers more prizes to the short horns than to other pure breeds, we take to be the fact, that the Durham stock is by far the most numerous, and the range of the competition therefore much wider. In fact, no Herefords, we believe, have ever been shown at our Provincial Exhibitions, except a few that were exhibited in the Foreign department, last year, by Americans; and the number of pure Devons is as yet very inconsiderable. The Ayrshires, in the Eastern Section of the Province are, we understand, increasing. It is an important and legitimate subject for investigation to ascertain the *relative* adaptation of the various breeds of cattle, and other classes of live stock, to the economical and physical conditions of this country.]—EDITOR.

FENCES.—Examine the fences which enclose your fields—do it yourself, and have every weak point made strong. Failing pasture tempts stock to break in and destroy. Care in this regard now, may save you from vexation and loss hereafter.—*Germanian Telegraph*.

## A REGISTER FOR IMPROVED STOCK IN CANADA.

To the Editor of the Canadian Agriculturist.

DEAR SIR,—The Agricultural Society of the united counties of Frontenac, Lenox and Addington, having lately purchased several Bulls and Cows of the Durham variety, for the purposes of breeding, it has occurred to several of us, that a Provincial list, or if I may presume to dignify it, by the cognomen,—“Herd Book,” in which the pedigrees of all animals of the improved breeds should be fully inserted, would prove generally interesting and useful. Will you, or any of your readers, turn your attention to the subject? The matter might perhaps be taken charge of by the Provincial Association.

I remain yours, truly,  
J. MARKS,  
President Agr'l Ass'n  
Upper Canada.

[We think the above suggestion of great importance, and that it should be brought before the Board of Agriculture as soon as that body is organized. A full pedigree should be given with every animal exhibited for a prize at the Provincial Association. We recently spent a day most agreeably with Mr. Marks and several of his intelligent and enterprising neighbors; and we were particularly gratified in viewing the live stock, including both cattle and sheep on the farm of Mr. Wm. Ferguson, the respected Treasurer both of the County and Agricultural Society.]—EDITOR.

## THE TURNIP-FLY AND THE MEANS OF ARRESTING ITS RAVAGES.

Early turnips bring so a high price in the New York and other markets, that every means should be tried to do away with their enemy, the  *flea-beetle*. We succeeded in raising early turnips two years since in an apple orchard. The continued falling of blossom leaves from the apple trees kept off the fly, while the turnips planted beyond the outer rows of the trees were all cut off. In Monmouth County, New Jersey, early turnips are raised with more certainty than any where else in our vicinity, and \$500 is often realized for the crop of a single acre. It will be observed in the following article, that dissolved bone-dust and guano are recommended to push forward the young turnips beyond the reach of the fly. An admirable manure for turnips may thus be prepared:—Dissolve five bushels of *sugar house bone-black* in dilute sulphuric acid—add this solution to a half cord of swamp-muck or other divisor, with which one hundred pounds of Peruvian

guano has been previously mixed, and then add a solution of 50lb of potash scrapings, and apply the whole to one acre for turnips. The crop will be more than double what would result from the application of four times the value of this compost in barn-yard manure, while the value of the turnips per bushel will be greater than if raised with dung. Messrs Barr & Atterbury, No. 25 Cliff street, New York, are preparing to supply farmers with sulphuric acid in an unfinished state, equally good for use as a solvent for bones, at a reduced price as compared with the ordinary mercantile article. Mr. J. J. Schofield, of Morristown, New Jersey, has raised by the use of proper fertilizers, 1400 bushels of Ruta Baga turnips from one acre.—[Ed. Michigan Farmer.

Among the very useful societies which are at work throughout the country, we hardly think there is one which for the same small amount of income effects so much good as the Chimico-Agricultural Society of Ulster. Hailing, as we always do, anything calculated to benefit the sister island in her agriculture, and consequently in her arts and morals and civilization—for as sure as agriculture becomes a scientific pursuit, so sure will these follow in its train—we rejoice to find this invaluable society still at its work of improvement; and the articles in its paper, the discussions at the meetings, and above all, the presiding genius of Professor Holges, its chemist, show that, with means ridiculously small, it has accomplished and is accomplishing wonders.

At the risk of appearing to prefer “pork in the dog-days,” we cannot help, even at this season, alluding to a discussion which took place before the Society on the turnip-fly, and the means of arresting its ravages, because the good sense of the remarks made, the intimate acquaintance with the natural history, habits, &c., of that insect, were most creditable to the speakers, and would do credit, in fact, to the *conversaciones* of the Entomological Society—if, indeed, its discussions were ever of so practical a character.

We need hardly say that the insect spoken of was the flea-beetle—the *halica nemorum*, a minute skipping beetle, with ten straw-colored stripes upon each of its wing-cases, which attacks the turnips just before the plumule is developed into leaf, and cuts and consumes the whole of the cotyledon leaves, so that the plant dies, and all this is generally the work of a day. A farmer will look anxiously for his young plants—he will see them spring up with vigor and regularity—he will watch them two or three days—there is a broad, clean expansion of leaf, and the plumule is just bursting into “rough leaf,” as it is termed, when, lo! thousands of minute insects will make their appearance as if they had dropped from the clouds, and the whole crop will disappear in forty-eight hours. And if the crop be white turnips, he may sow once every day, they never will recover. If they are swedes, however, having much more tenacity of life, they will survive, if only the plumule is left uneaten. Once let the secondary leaves be developed, and all is safe: they may be

there, and eat to their hearts' content—they may do injury, but they will never destroy the crop.

The remarks made on the natural history of the insect did credit, we said, to the speaker, and especially the paper of the Professor. He says, as to this point, that if they examine the turnip, leaves in the months of July and August, they will find the eggs deposited, which are nearly the color of the leaf itself. In ten days the larvæ or maggots, of a white color are hatched, and immediately betake themselves to the substance of the leaf, between the upper and lower skin, and then consume the cellular substance of the leaf, forming a series of net-work in it, burrowing in a mass of shapeless mazes, and wonderfully avoiding each other's course in the leaf. For sixteen days they thus proceed, doing little apparent injury indeed, and at the conclusion of this term of probation, they drop out and bury themselves about two inches in the ground, there to change into the almost motionless pupa, in which they remain about fourteen days more, and at last emerge in the perfect form. During winter it betakes itself to the crannies of bark of trees, stubble, &c., to be ready to emerge as soon as the turnip or any of its congeners make their appearance, especially the charlock or wild mustard, which is the "early spring food" for a host of these vermin; and it will often be observed that a dozen to a score of these insects are attacking a single plant in the month of April, and before any turnips could be available for its use.

The review of the remedies proposed for this pest is very sound and practicable. Snuff, assafoetida, &c., applied to the seed are very properly discarded. Nitrate of soda applied to the seed is spoken of with more favor. Linseed oil and sulphur applied in the same manner are spoken of, we think, also with deserved disfavor. Mechanical modes next come under review; and the ingenious one of Mr. Paul, who sows a plot decoy turnips sometime before his crop, and then catches the intruders in a net, is amongst the most ingenious, and not unworthy of notice. The painted board as a trap, against which the insects jump, and are detained by the paint is also noticed; but we fear it is but an ineffectual remedy.

The most efficient cure, however, depends on two facts—first, to keep the land as clear of charlock, &c., as possible, and then to push on the plants in their early stage with such a degree of rapidity as to overcome the attack. Hence, we hardly ever knew a soil in fine tilth, manured well with guano or dissolved bone, the turnips reasonably thick, that were totally dissolved. We must say that we have seen striking instances of a powdering of lime preventing the destruction of the plants. We one season witnessed this at Leyfield, near Newark, in Nottinghamshire. Mr. Parkinson had a field most vigorously attacked. He dusted the plant by hand with lime, two to four bushels per acre. One piece was left for experiment-sake, or from falling short of lime, unsprinkled. The crop was saved, with the ex-

ception of the few undusted rows, which were lost.

We cannot help, however, expressing our strong approval of the *prevention* noticed in the discussion before alluded to, viz., till well, keep clean, and use some stimulating manure: this with plenty of seed, will scarcely ever fail of preventing the destruction of the crop.—*Gardeners' and Farmers' Journal*.

## AGRICULTURE AND IMPROVEMENTS AT PERTH—COUNTY OF LANARK.

*For the Canadian Agriculturist.*

The Perth Agricultural Society, has now been in existence something over 10 years, and has proved of much benefit to the surrounding Townships. Compared with its resources, it has expended liberal sums in the purchase and introduction of valuable and improved breeds of Sheep, Hogs, Horned Cattle and Horses, as well as seeds and Agricultural implements. It has been the means of gathering together the friends of the farming interest here, and of circulating a great amount of Agricultural information. As one instance of an improved state of feeling, I mention the fact, that while at first, the very common prejudice against book farming existed, so much so as to prevent the perusal of an Agricultural paper except by a very few persons, we now circulate regularly every month something like 80 copies of Agricultural papers. A spirit of enquiry has thus been created—or to use other words, the ground has been prepared—good seed has been sown, and we have every reason hereafter to expect a bountiful harvest.

The officers for the current year are—

W. Spalding, Esq.	President.
Thomas Cuddie,	} Vice Presidents.
John Moderwell,	
Alexander Ferguson,	
W. O. Buell,	Treasurer.
Thomas Thompson,	Secretary,

besides a large and active managing committee, whose names I cannot send you, not having a list by me.

A fresh premium list has been prepared for 1851,—a show appointed for September next—arrangements made to pay premiums in cash on the ground—and generally speaking, the Society is in a vigorous and flourishing condition.

W. O. BUELL.

Perth, April 18th, 1851

P. S. If the projected Railroad from Montreal through this place, becomes, as there is reason to hope, a great *fact*,—our Farmers will be placed in a most prosperous and enviable position. We will then put in *our* claims to have the Provincial Exhibition at Perth.

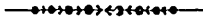
☞ Apply your soap-suds to your grape vines and rose bushes; they will be benefited by it.

## ENGLISH FARMING.

A farmer writing in the *Cumberland Parquet* thus describes Mr. Hudson's farm at Castleacre:—"I went some time since to Castleacre, to visit my friend Mr. Hudson, whose name and writings are well known in the agricultural world; and I need not say I met with a most kind, liberal, and unostentatious reception. It is 23 years since Mr. Hudson took the Castleacre farm, under Lord Leicester, (then Mr. Coke), after having cancelled five years of the old lease, by which he lost £500. His rent was then £1,500 per annum for 1,400 acres. Seven years ago the lease was renewed for 21 years, at £1,600 per annum—a fair rent at that time; but when we consider that the saleable value of the estate has been increased by Mr. Hudson's industry and outlay to the extent of not less than £10,000, it is to be presumed that he would get a renewal of his lease on liberal terms; or otherwise that he may, during the next seven years, endeavour to withdraw from the land some reasonable portion of the capital he has invested in it. Mr. Hudson referred to his books to show that during his tenancy he has laid out in oil-cake and artificial manures £55,000. The oil-cake is laid on the land after passing through his cattle in the act of feeding them, but still it is money laid out in manure. This year his outlay is for 200 tons of linseed cake, at £60 10s. per ton, £1,250; 56 tons of Peruvian guano, £560; nitrate of soda, sulphuretted bones, &c., £400 more; besides Egyptian lentils, Indian corn, &c., for feeding purposes. He is now feeding cattle as the quack advertisers would feed us, namely, on *Revalenta arabica*, which is said to be ground Egyptian lentils, to the number 160 beasts, besides 100 of lean stock and cows, all of which will be turned into cash by May-day. They are lodged in eleven straw-yards, with sheds all round the quadrangle, and all abundantly supplied with food and water. With the cattle associate a good many growing pigs, which are quick enough to pick up a living amongst their betters. Mr. Hudson is preparing three beautiful Devon oxen for the Smithfield show. They appear small animals, but of excellent form and quality, and the fattest one is estimated to weigh 90 score, which at 6d. per lb. is £45; and if he obtained a £20 prize the ox will pay well. The mangers these animals feed from have slate bottoms, which are both clean and very durable. Mr. Hudson has 2700 sheep, 2500 of which, after their fleeces are off, will be sold in Smithfield before Midsummer, the breeding ewes being retained. The wool will be sold before Christmas, 1851, Mr. Hudson making it a point to adopt the commercial maxim of selling all he makes, whether it be beef, mutton, pork, corn, or wool, before his annual stock-taking. From about the end of November he sends about 150 quarters of grain to market weekly, until all is sold. His land sown and sowing with wheat this year is 500 acres, in the fields 35, 40, and 50 acres each, and in each field the crop is stacked on circular bottoms and iron posts two feet high and three feet apart. His circular stacks are 27

feet in diameter at the bottom; of symmetrical form, and beautifully trimmed. His barley stacks are oblong, 60 feet long by 20 feet wide, and not on raised bottoms; so that the rats, poor things! are kept on barley instead of wheat. Mr. Hudson paid £2950 in wages in 1849, and £2700 in 1840, and usually receives from £3,000 to £10,000 per annum from Smithfield market, according to the price of meat, now considerably less, the price of meat being too low to pay. He has put on his turnip land this year 3,000 tons of yard manure, and on his wheat land 2,000 tons; besides guano, bones, and other things. When I visited them, they were ploughing a little field of 35 acres with four pairs of oxen; and as they finished a ridge, six or eight feet wide, and while the mould was fresh and moist, the seed-drill followed; and after the drill came the harrow to finish with—the three operations going on together. I asked "what crop had you on this last?" "Turnips." "When did they come off?" "Yesterday. We hauled off half, and feed off the other half with sheep, and they finished their feed yesterday. We never let the land lie—we plough and sow directly we get the turnips away." "Well but where are the weeds?" "There are none, the turnips are kept perfectly clean. The same principle is adopted in turnip sowing, we put in the seed instantly the plough has passed over it." Mr. Hudson uses Howard's (of Bedford) patent plough. He bought a dozen of them four years ago at £4 15s. each. His dibbling machines cost £60 each. He has six road waggons, 18 Gloucester harvest waggons, 12 two-horse tumbrils with iron bottoms; 4 light Gloucester waggons for hay and light work, and a few one-horse carts—all made on the premises. His saddlery and harness are all repaired on the premises. And one of his steam-engines was made at home. This is all so different from the extent and routine of an ordinary Cumberland farm, that you may think I am romancing, but you must come and see, and then you will believe. Mr. Hudson has two stationary steam engines, of 12 horse power each, on different parts of the farm; and he finds they are not sufficient for his work, and is building a third. The castings are made in the village; and his engincer and blacksmith, with their forges and lathes, put them together. One of the engines was at work threshing barley, two men were in the stacks two loading the waggons, and two pitching from the waggons to the engine, another receiving the grain in swills, from which he returned it into another whirligig to have the beards broken off. The straw came out at another place, and was pitched away; and a cloud of chaff and dust showed where the winnowing was going to. The same engine was, at the same time, pumping water, grinding *Revalenta arabica*, and breaking oil-cake. The same machine also presses linseed for extracting the oil, which is put into large wine pipes and sent to America for sale, and the cake goes to feed the cattle. There is also attached a flour mill, as well as a barley-flour mill, for grinding the refuse corn, beans, &c., for feeding purposes; a saw mill and other conve-

niencies. The cart-wheel fellos are cut out in segments by the machinery of the engine, and much other work done by steam agency. Mr. Hudson has 40 work horses and 18 working bullocks. The latter work double (? half) shifts, viz., two oxen in a plough—he keeps 4 ploughs at work 10 hours a day, and they plough from one and a quarter to one and a half acres daily each plough. The straw is cut into chaff; the turnips are sliced and other roots are cut by the steam machinery. Mr Hudson has two suits of clothes, one fine and the other coarse, and his wife has a beautiful shawl, all of their own wool. As for a thistle growing on the farm, you might safely offer a guinea for it; and the land is, for 1400 acres, like a garden. Women and boys are constantly employed picking up every stray weed, and sometimes they contract for it by the acre. Altogether, the farm, the farmer, and the style of farming, is such as few Cumberland farmers can have any idea of."



ON SOWING, BROADCAST, DRILLED, AND DIBBLED—THICK AND THIN—AND AT DIFFERENT DEPTHS.

We have briefly noticed the numbers of the "Farmer's Guide to Scientific and Practical Agriculture" by H. Stephens, F. R. S. C., assisted by Professor Norton of Yale College, as they have appeared. It is an admirable work, and is now published in a form and at a price that will enable every intelligent farmer to possess himself of a copy. Nearly every operation of the farm is explained and illustrated in a plain and simple manner. We have at some expense procured the engravings which follow, showing the importance of good ploughing, and drill-sowing. We shall copy other useful matter from this excellent book, in future numbers.

**Broadcast sowing.**—Of all the modes of sowing the seeds of the cereal crops, none requires so much seed as the broadcast. The usual quantity of seed sown is 3 bushels of wheat, 4 bushels of barley, and 6 bushels of oats to the acre. Thirty years ago the quantities of seed sown were larger, viz.—4 bushels of wheat, 6 of barley, and 7½ of oats. These quantities I myself have sown.

However well the land may be ploughed, the seed sown broadcast will braid irregularly—some falling into the hollowest part of the surface, some upon the highest, and some being scarcely covered with earth by the harrows—some sliding gently into the rut after the tines have passed, whilst others are carried as deep into the ruts as the tines themselves penetrate. To harrow the land smooth, previous to the sowing of the seed, would not cure the inconvenience of irregular covering, since it is impossible to cover so large a seed as that of the cereals, merely with the action of the tines of the harrows, without the assistance of a rough surface of mould. On smooth harrowed ground the seed would be left on the surface, and even harrowing, as presently conducted, leaves

many seeds exposed, to be picked up by granivorous birds. What I have stated may be illustrated by the following figures, where from c to d, fig. 1, are represented furrows, well and regularly

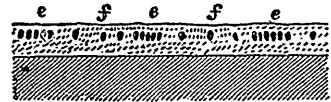
Fig. 1.



WELL-PLOUGHED REGULAR FURROW-SLICES.

ploughed; but it is obvious that although the seeds will fall successively more into the hollows between the furrows than upon the sharp points, when scattered broadcast from the hand, yet some will fall on the points and sides of the furrows. The seeds will lie in the ground, as shown in fig. 2, where those are thicker at e, which fell into the hollows of the furrows, and thinner at f, which stuck upon their apex, or on their sides. But even their position will not be so regular as is here represented, where all the seeds are at the same depth from the surface, for some will be deeper

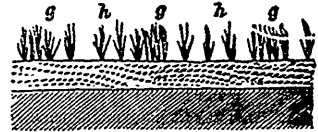
Fig. 2.



THE POSITION OF SEEDS WHEN SOWN ON REGULAR FURROW-SLICES.

than others, some too deep, and others too shallow, whilst not a few will have been left exposed on the surface. From such a deposition, as in fig. 2, the plants will come up in the irregular manner represented in fig. 3, where g are clumps

Fig. 3.

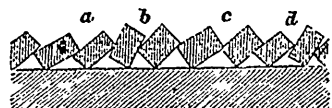


IRREGULAR BRAIRDING FROM EVEN REGULAR FURROW-SLICES.

of too many plants, and h straggling ones too far asunder. But in reality, the seeds having been deposited at different depths, the plants will present greater irregularity of height than is shown in fig. 3.

But when the land is ill ploughed, the case is still worse. Fig. 4 shows the irregular manner

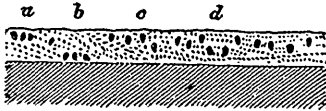
Fig. 4.



ILL-PLOUGHED IRREGULAR FURROW-SLICES. in which the furrows are placed by bad ploughing.

Bad ploughing is attended with bad consequences at all seasons, in forming the seed-furrow for any kind of crop, but particularly for a cereal one, inasmuch as irregularity of surface cannot be amended in this by the cleansing implements in future operations, as might be the case in a green crop. Seed sown on the irregular surface of fig. 4, where *a* is a narrow deep furrow, *b* a shallow one, *c* a large one of ordinary depth, and *d* one having a high and steep side, will be covered in an irregular manner, as is shown in fig. 5, where some seeds are clustered together and covered in a shallow manner at *a*; others also clustered, but

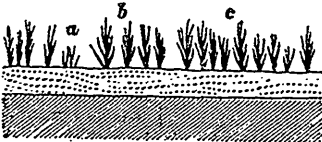
Fig. 5.



IRREGULAR DEPOSITION OF SEED ON ILL-PLOUGHED FURROW-SLICES.

buried deep, at *b*; whilst many are scattered irregularly at different depths, at *c* and *d*. It is obvious, from such a deposition of the seed, that the braird must come up in a very irregular manner, likely to affect the future progress of the crop; for we have only to look at such a braird to be convinced that the plants have not all the same chance of arriving at maturity at the same time; and, if a crop does not mature alike, the grain cannot be alike in the sample. In fig. 6, where the seed

Fig. 6.

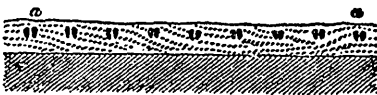


IRREGULAR BRAIRD ON ILL-PLOUGHED FURROW-SLICES.

was sown very deep, it will produce plants that will come up late, as at *a*; while that covered in a shallow manner will send up plants early, as at *b*, which will push on in growth when the weather is favourable, and get far in advance of the late ones at *a*. The remainder at *c*, coming up in a more regular manner, will form the best part of the crop.

*Drill-sowing.*—One evident advantage of sowing with a drill over a broadcast machine, is the regular deposition of the seed at one depth, whatever depth may be chosen. Fig. 7 represents the seeds deposited at regular intervals, from *a* to *a*. The figure is supposed to be a cross section of the

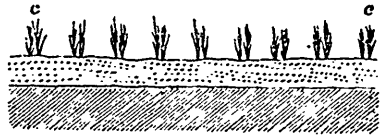
Fig. 7.



REGULAR DEPTHS OF SEED BY DRILL-SOWING. ground, as also of the seeds in the lines of rows as

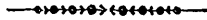
sown with the drill. The braird is shown also in cross section from the drilled seed in fig. 8 from *c* to *c*, where the plants seem all of the same

Fig. 8.



REGULAR BRAIRD FROM DRILL-SOWN SEED.

height and strength, and their produce may reasonably be expected to be of the same quality. What makes drilled seed be certainly retained at a uniform depth is the harrowing of the land into a smooth state before the drill sows the seed.



RAISING DUCKS.

The duck, though a very valuable fowl, and usually commanding a high price in our market, has one great objection, which is that they are unmerciful gormardizers, and are difficult to raise. The eggs are generally incubated by hens. In situations remote from water they rarely do well; their propensities being aquatic, and standing water essential to their health. Where there are ponds or streams the duck is probably as profitable as any fowl; they are very prolific, and their eggs are preferred by many to those of hens.

Meat is essential to the duck in dry situations. Where they have free access to ponds, they feed on various reptiles, and species of the aquatic grass which they find beneath the surface, and which is a very excellent substitute for animal food. When insects are abundant such as grasshoppers and the like, they require no supply of meat, as they obtain a sufficiency of animal food themselves; but when this is not the case, they must be furnished liberally or they will assuredly die. Potatoes boiled and well mixed with meal makes an excellent article of food for the duck. They become fat when fed on it, and when in preparation for market is perhaps the best food that can be given to them except meat. Young ducks require great attention. Their voracious habits often induce them to eat to repletion, and many die quite young, from no other cause than pure stuffing.—*Ger. Tel.*

*MINDS SEEN ON MOUNTAINS.*—As upon a mountain you get a new and extended view of the surrounding scenery, so you there obtain fresh insight of the hearts and feelings of your companions. The soul seems to expand in the vastness and sublimity of the prospect and exhilarating air, as the night-closed petals of a flower open to the influence of the morning sunshine.

THERE is in every human countenance either a history or a prophecy, which must sadden, or at least soften every reflecting observer.—*Coleridge.*

AFFECTION or love is what constitutes the life of every person, for whatever the affection is, such is the man.

Great Ploughing Match between Scarborough and  
Vaughan,  
FOR A PURSE OF £100.

The notice which follows having been written by one of the editors for the columns of a contemporary journal, is copied from that paper:—

This second trial of skill in the ancient and important art of ploughing by the same competitors, came off last Friday the 25th April, in a field belonging to George Miller Esq. of Markham. The day was brilliantly fine and the atmosphere warm and summer-like, and the number of spectators equalled, if not exceeded, either of the two former occasions; being estimated at four to six thousand. Our readers will recollect that the first match of this series took place in Pickering between Scarborough and Whitby in the spring of 1849, when the former was declared the winner. Last year the Township of Vaughan challenged Scarborough, when the latter again proved victorious, and the challenge was repeated this year with a like result.

As on the two previous occasions, the number of ploughmen on each side was twenty, and the ploughs used were invariably made of iron, on the approved and well known principle of the Scotch swing plough; indeed several of the implements employed were imported from the celebrated manufactory of Gray; the remainder were made by different parties in the Province. At the first competition in Pickering, we observed a few wooden ploughs, which, however, have not appeared in subsequent contests. Of the general superiority of the Scotch swing plough, when competently managed, there can hardly be two opinions among practical ploughmen.

The work done on the present occasion, presented, perhaps, no very decided improvement upon that of last year. Yet whether viewed as a whole or in any of its details, it must be acknowledged to possess very great merit, and would be considered highly creditable in the first cultivated districts of the mother country. The state of the ground was scarcely so good for the purpose as that for last year, and we observed that some of the ridges or lands, were not of uniform convexity, a circumstance of course unfavourable to a perfect result. There was, as heretofore, in the Scarborough work a distinctive and uniform style, if we may be allowed the expression, which gave it a distinctive character; the furrows were not only even and straight, but they were laid at precisely that angle which meets the eye most advantageously. The Vaughan ploughing, although much of it excellent, and none of it bad, lacked that characteristic as a whole; and we very much doubt whether the Vaughan ploughmen had previously practiced with any thing like that unity of purpose, which was so evident in their opponents. The ploughing on both sides must be considered good enough for all practical purposes; and we consider the objects of honorable competition in regard to these two Townships to be, at

least for the present, accomplished. We see no likelihood of any good resulting from a repetition of the challenge, for several years to come. In the mean time, let other Townships enter the lists; for it must be acknowledged that these contests have already had a most beneficial influence on the cultivation and productiveness of the country.

The following are the names of the ploughmen, with their origin and descent. All are considered Canadians who learned to plough in Canada whether they were born here or in Europe.

SCARBORO PLOUGHMEN.	VAUGHAN PLOUGHMEN.
Wm. Weir, Scotch.	Peter Frank, Canadian, German Descent.
John Crone, Canadian, Scotch Descent.	Wm. Wetherspoon, Scotch.
William Hood, Canadian, Scotch Descent.	Samuel Musselman, Canadian, German Descent.
James Weir, Scotch.	Walter Dalzell, Scotch.
Walter Hood, Canadian, Scotch Descent.	Jas. Somerville, Scotch.
Andrew Bertram, Scotch.	William Burton, Canadian, Scotch Descent.
Henry Mason, Canadian, English Descent.	William McNair, Canadian, Scotch Descent.
Arch. Thompson, Canadian, Scotch Descent.	J. Campbell, Canadian, Scotch Descent.
Geo. Burke, Canadian.	Jos. Frank, Canadian, German Descent.
Thomas Crone, Canadian, Scotch Descent.	William Keffler, Canadian, German Descent.
John Wakefield, Canadian, English Descent.	James McNair, Canadian, Scotch Descent.
Robt. Patterson, Scotch.	R. Thompson, Canadian, Scotch Descent.
And. Browning, Scotch.	Dun. Mathewson, Scotch.
John Crawford, Scotch.	G. Chareilton, Canadian, English Descent.
Jas. McCowan, Scotch.	Duncan McClair, Canadian, Scotch Descent.
Jas. Patterson, Scotch.	Geo. Smith,
John Patterson, Canadian, Scotch Descent.	Arch. McMillen, Scotch.
Geo. Evans, English.	Henry White, Canadian, German Descent.
W. Maddison, English.	Alexander Muir, Canadian, Scotch Descent.
John Weir, Scotch.	

The following are the names of the Judges.

JUDGES FOR VAUGHAN.—Benjamin Jennings, King, Wm. Lawson, Markham; Joshua Clark, Pickering.

JUDGES FOR SCARBORO.—Robt. L., Toronto; John Gibson, Markham; — Weir, Reach.

Each of the competing townships chose one umpire, and casting lots for the third, it resulted that Scarborough chose the third umpire. Their names are,

Umpire for Vaughan—Mr. Leask.

Umpires for Scarborough—Archibald Cameron, Toronto. William Watson, Whitby.

A substantial dinner was prepared by Mr. Armstrong of Markham Village, to which the ploughmen and 4 or 5 hundred persons sat down after the contest was over. His Excellency was expected but did not honour the occasion by his presence. Col. E. Thompson President of the County Agricultural Society sat at the head of the table. The usual regular toasts were drunk, and appropriate music by the band and songs followed. The award of the judges not being finished until late in the evening the successful competitors were not toasted by the "Ploughmen" without distinction instead. One of their number briefly returned thanks. The "Agricultural Association" was replied to by the worthy Secretary of the Association, Mr. Buckland. He spoke of the great good already accomplished by this noble institution and the bright prospect of usefulness before it if properly sustained by the

people. As a further proof of what could be done by such agencies he referred to the achievements of the English, Irish, and Scotch Agricultural Societies. The "County Agricultural Society" was replied to by the Chairman, Mr. Thompson, who after pointing out the progress that had been made in agricultural improvement by County and Township Societies, referred in complimentary terms to Mr. Perry, the member for the Riding, who was the originator of these ploughing matches between townships. F. Jackes, Esq., the Warden of the County, replied to the toast, "Township Societies," and pointed out their benefits. "The Press" was proposed by the President in a few remarks upon its usefulness, particularly in disseminating information in reference to such performances as had been witnessed that day. Mr. McDougall of the *North American* being called for, replied. After a brief allusion to the subject of the toast he adverted to the President's reference to Mr. Perry, and stated that he was happy to learn from some members of the Hon. gentleman's family that he was rapidly recovering from his late illness. He had little doubt, that if no untoward change took place, their worthy and independent member would be able to take his place in parliament on the 20th May or soon after. As the originator of these ploughing matches which promised so much benefit to our agricultural interests he thought on that occasion they could not do less than drink his better health. He begged therefore to propose "The health of Peter Perry—may he soon be restored." The toast was received with three times three. One or two other toasts followed and the company separated.

We understand that the Judges could not agree in their award and the matter was referred to the umpires.

### "KNOWLSON'S COMPLETE FARRIER."

HOW TO CHOOSE A HORSE—CURE FOR A COLD  
ASTHMA, ETC.

We have frequently been asked to publish receipts for various diseases in horses, cattle, &c., but we have felt a reluctance to do so without at the same time presenting some information relative to the diseases themselves. A remedy that might be good in a particular case, would perhaps be useless, if not injurious, in another case of a similar kind. We have met with a little work of high reputation—"Knowlson's Complete Farrier," and believing from the plain practical style in which it is written, that it will prove of great value to every reader who keeps a horse, or has charge of that noble animal, we shall publish the *whole* of it in successive numbers of the *Agriculturist*. It will be completed by the end of the volume without occupying an undue share of our space. The index will be added, and our subscribers will thus have a valuable book in addition to the one they have gained for.

Of all the things that the Creator has made for the use of Man, the Horse is the most serviceable. It is also the most tractable, if broken when young; but if not, it becomes restive and sub-

born. No creature is worse used among the brutish part of mankind.

There are only three kinds of these useful creatures, viz. the *Horse*, the *Ass*, and the *Zebra*; but by crossing the breeds, many different sorts are produced. You may raise a cross breed from a horse, with an ass, but you can go no further. We cannot learn with certainty from history from where horses came at first, but it is very likely from Asia; although the extensive plains of Africa abound with them, and they run wild in many other parts of the world, where the natives know no other use of them than to eat their flesh.

In more civilized countries the horse becomes more tractable, and then, and not till then, its proper value appears. Our own country may challenge all nations for a good breed of horses, proper for all uses. We have them from eight to eighteen hands high; some as heavy as any in the world, and some very small; some calculated for swiftness, and some for drudgery; and some which are kept for show, and are of little use: but that is the fault of the owner, and not of the horse.

Many of these useful creatures are slaughtered by sinful men, and many are ill treated through that abominable and soul-destroying evil—*drunkenness*; and these poor animals which are so useful to man, are hungered, whipt, and ill treated many other ways. A horse is agreeable for its beauty, as well as valuable for its usefulness; but neither of these things prevents wicked men from using him ill. But it is not my intention to give you a history of the horse in this little treatise, but to inform you how to cure it when out of health.

#### HOW TO CHOOSE A HORSE.

In my time I have bought and sold hundreds of horses, as well as had thousands under my care when unwell, but still I am at a loss how to give my readers proper directions *how to choose one*; for among all the difficulties attending the common affairs of life, there is not perhaps a greater than that of choosing a good horse; nor will this appear strange when we consider the number of niceties attending this animal, with regard to its shape and manner of going, which are so numerous that it would fill a volume to describe them. Indeed, the best judges are obliged to content themselves with guessing at some things, unless a sufficient trial be allowed.

The *Eyes* are the first things to attend to, and should be well examined, as the best judges are often deceived in them. *Clearness of the Eyes* is a sure indication of their goodness; but this is not not all that should be attended to: the eyelids, eyebrows, and all the other parts must be considered; for many horses whose eyes appear clear and brilliant go blind at seven or eight years old. Therefore be careful to observe whether the parts between the eyelids and the eyebrows are free from bunches, and whether the parts round the under eyelids be full, or swelled; for these are indications that the eyes will not last. When the



eyes are remarkably flat, or sunk within their orbits, it is a bad sign; also when they look dead and lifeless. The *Iris*, or circle that surrounds the sight of the eye, should be distinct, and of a pale variegated cinnamon colour, for this is the sign of a good eye.

When the horse is first led out of a dark stable into a strong light, be sure to observe whether he wrinkles his brow, and looks upwards to receive more light; for that shews his eyes to be bad.— But if you observe that the dimensions of the *pupil* are large, and that they contract upon his coming into a strong light, it is almost an infallible sign that his eyes are good.

Sometimes what are called *Haws* grow on the corner of the eye, and cause the horse to go blind. You may take them out, and although it will disfigure the eye, yet it will be but a little worse.

In the next place examine the *Teeth*, as you would not wish to purchase an old horse, nor a very young one for service. A horse has six teeth above and six below, in the fore-mouth, which are called the *Cutting-Teeth*. At two years and a half old it changes two on the top and two on the bottom, which are called the *Nippers*; at three years and a half it changes two others, called the *Separators*; at four and a half it changes the *Nook Teeth*; and at five years old has a full mouth; when the *Tusks*, commonly called the *Brille-Fangs*, rise.

Horse-dealers have a trick of knocking out the nook teeth at three years and a half, to make the horse appear five years old when only four; but they cannot raise the tusks. At six years old the *Nook Teeth* are a little hollow, and at seven there is a black mark, like the end of a ripe bean. Afterwards you will observe the flesh to shrink from the teeth, which grow long and yellow.

Horse-dealers have also a method which they call *Bishoping a horse's mouth*; that is filing the tusks shorter, rounding them at the ends, taking a little out of the nook teeth, so as to make them rather hollow, and then burning them with a hot iron. I was hired by an Anthony Johnson, of Wincolmlee, Hull, as farrier to a number of horses that were going to the city of Moscow, in Russia, for sale, and we had a little grey stoned horse, called *Peatum*, that was seventeen years old, the mouth of which I bishoped, and he passed for six years old, and was the first horse sold, and for £500 English money! I only mention this as a caution to horse buyers.

The *Feet* should next be regarded; for a horse with bad feet is like a house with a weak foundation, and will do little service. The feet should be smooth and rough, of a middle size, without wrinkles, and neither too hard and brittle, nor too soft; the *Heels* should be firm and not spongy and rotten; the *Frogs* horny and dry; and the *Soles* somewhat hollow, like the inside of a dish or bowl. Such feet will never disappoint your expectations, and such only should be chosen.

Particular regard should be had to the *Shoulders*; they should not be too much loaded; for a

horse with heavy shoulders can never move well; and on the other hand, one that has very thin shoulders, and a narrow chest, though he may move briskly so long as he is sound, yet he is generally weak, and easily lamed in the shoulders; a medium should therefore be chosen.

Be careful to observe the creature's *Motions*:— that the *shoulders, knees, and pasterns* all act together, and have but one spring of motion, for in that case alone can they be said to move well.

The *Limbs* should be free from \* *Splents* and † *Windgalls*. The *Knees* should be straight and not bending, or what is called a calf's knee: the *Back-sinews* strong and well braced: the *Pastern Joints* clean, and free from swellings of all kinds; and the *Hocks* lean and dry, and free from ‡ *Spavins*, § *Corbs* and *Flatulent Tumors*.

The *Body* or *Carcass*, should neither be too small nor too large. The *Back* should be straight or have only a moderate sinking below the *Withers*: for when the back of a horse is low, or higher behind than before, it is both very ugly and a sign of weakness. The back should also be of a proper length. The *Ribs* should be large, the *Flanks* smooth and full, and the *Hind-parts* or *uppermost Haunches*, not higher than the shoulders. When the horse trots before you, observe if his haunches cover his fore-knees. A horse with a short hind-quarter does not look well.

The next thing to be regarded in a horse is his *Wind*, which may be easily judged of by the motion of his flanks: A broken-winded horse always pinches in his flanks, with a very slow motion, and drops them suddenly, which may be easily perceived. Many horses breathe thick that are broken-winded; indeed, any horse will in foggy weather, or if foul fed, without sufficient exercise; but if a horse has been in good keeping and had proper exercise, and yet has these symptoms, there is some defect, either natural or accidental; such as a narrow chest, or some cold that has affected his lungs.

There are other particulars that should be observed in choosing a horse. If his *Head* be large and fleshy, and his *Neck* thick and gross, he will always go heavy on the hand, and therefore such should never be chosen. A horse that has his *Hocks* very wide, seldom moves well, and one that has them too near will chafe and cut his legs by crossing them. *Fleshy-legged* horses are generally subject to the *Grease*, and other infirmities of that kind, and therefore should not be chosen.

\* There are four kinds of Splents, viz., the Bone Splent, the Blood Splent, the Osselet, and the Horn Splent.

† Windgalls are soft Tumors, seated on either side of the Fetlock Joint.

‡ There are two kinds of Spavins, viz., The Blood Spavin which lies in the joint of the hind leg, something like a Windgall, going quite through the joint, and is then called a Thorough Pin; and the Bone Spavin which lies just below the joint, on the inside, and is called by dealers a Dry Knot, or Jack.

§ A Corb lies on the back side of the hind leg, near the lower part of the joint.

The *Temper* of a horse should be particularly attended to; because if his temper be good, it greatly augments his value, and if bad, it exposes him to many accidents. It is difficult to discover the temper of a horse without a proper trial, which should always be obtained, if possible. *Fear* is an impediment which greatly lessens the value of a horse; for a fearful horse endangers both himself and his rider. Almost every day affords us melancholy instances of persons being hurt or killed by fearful horses; and many horses are utterly spoiled by accidents that happen from their fearfulness. A fearful horse may be known at first sight by his starting, crouching, and creeping.

A *hot and fretful* horse is also to be avoided, but the buyer should be careful to distinguish between a hot, fretful horse, and one that is eager and craving. The former begins to fret the moment he is out of the stable, and continues in that humour till he has quite fatigued himself; and the latter only endeavours to be foremost in the field, and is truly valuable; he has those qualities that resemble prudence and courage; the other those that resemble intemperate heat and rashness.

When dealers have had a horse sometime in their stables, they exercise him with a whip two or three times a day; so that when a Chapman goes to look at him, they have only to stir their hand with the whip in it, and it is hard to say whether the horse be lame or not, it being so fearful of a drubbing, that a good judge may be deceived.

A horse that goes with his fore-feet low is very apt to stumble; and there are some that go so near the ground that they stumble most on even road; and the dealers, to remedy this, put heavy shoes on their feet, for the heavier a horse's shoes are the higher he will lift his feet. Care also should be taken that the horse does not cut one leg with the other. A horse that goes near the ground will cut the low side of his fetlock joint, but one that goes high cuts below the knee, which is called the *speedy cut*. A horse that lifts his feet high generally trots fast, but is not the easiest for the rider. Some horses cut with the spurn of the foot, and some with the heel; but this you may soon perceive by their standing; for if a horse points the front of his foot inward, he cuts with the spurn, and if outward with the heel.

These few instructions may be of use in purchasing horses; but I advise every one to get some experimental knowledge of them before he trusts to his own judgment, for the dealers have so many arts to hide the defects of their horses, that the best judges are often deceived.

#### A COLD.

This is such a common disease, that many people look upon it with indifference; but there are few disorders incident to horses, which do not more, or less derive their origin from a Cold. But, as only those who are used to horses can tell when

they have got this disease, it will be necessary to describe the nature of a cold, and the usual symptoms that attend it.

**CAUSES OF COLDS.** These are various; but the most usual are, riding the horse till he is hot, and then suffering him to stand still, exposed to the cold air; removing him from a hot stable to a cold one: (if the horse have been high fed, and clothed, the cold contracted in this manner often proves very violent; and this is the reason why horses often catch a severe cold on their first coming out of the dealer's hands;) neglecting to rub him properly down, and to rub the sweat carefully off when he comes in from a journey; and I have known grievous disorders brought on by removing horses into a new stable before the walls and plastering were dry. Workmen are often in fault for not leaving air-holes above; as when a horse comes into a new stable, and gathers heat, it will cause the walls and plastering to sweat very much, especially if there are no air-holes left. Many a horse has lost his eyes, and some their lives, by being put into new stables before they were dry.

Many farmers and tradesmen get too much drink when they go to market, and set off for home, riding like madmen, and call at some public-house on the road to get more of the soul and body destroying evil, leaving their horses to stand sweating at the door, where it is no wonder they get cold. Waggoners, carters, and coal carriers, are also often guilty of this abominable practice.

**SYMPTOMS.** When a horse has caught cold, a cough will follow, and he will be heavy and dull in proportion to the severity of the disease: his eyes will be watery; the kernels about his ears, and under his jaws, will swell, and a thin mucous gleet will run from his nose. If the cold be violent, the horse will be feverish; his flanks will heave, and he will refuse his food. The owners should be very careful to observe these last symptoms, because when they appear and are attended with a slimy mouth, cold ears and feet, moist eyes and a great inward soreness, there is danger of a fever, and generally of a malignant kind. But when the horse coughs strongly, and snorts after it, eats scalded bran, and drinks warm water, is not much off his stomach, moves briskly in his stall, dungs and stales freely, and without pain, his skin feels kindly, and his coat does not stare, there is no danger, nor any occasion for medicine. You should, however, bleed him, keep him warm, give him some feeds of scalded bran, and let him drink warm water.

**THE CURE.** If the horse feel hot, and refuse his meat, it will be necessary to bleed him plentifully, and give the following drink:—

- 2 oz. Juice of Liquorice.
- 2 do. Salt of Tartar.
- 2 drachms of Saffron.
- 2 oz. of Honey.

Cut the juice small, dissolve all together in hot water, and give it nearly cold. This drink may

be repeated as occasion requires, but let twenty-four hours elapse first. Or give:

4 oz. of Anniseeds  
2 do. Liquorice Root.  
1 do. Gum Scammony.  
1 do. Nitre.

Boil these together in three pints of water for ten or twelve minutes; strain the liquor through a cloth, and add two ounces of honey to it when you give it to the horse.

It is a common practice with Farriers to give a drench of hot nauseous powders, in a quantity of ale; but this is a very bad practice, for it heats the blood, and consequently increases the fever; and at the same time the powders pall the horse's stomach by their loathsomeness. The following ball, commonly called the Cordial Ball, is one of the best yet found out for coughs or colds either in horse or man, and is much preferable to the horse-ball's commonly sold at the druggists' shops, and too often made of bad ingredients. Be careful to get your drugs good, for this ball is of great worth in many disorders, both in racers, hunters, and road horses. Few things will remove a cough or a cold, or clear a horse's wind, sooner or better. Mr. Markham recommended one something like it, which is called Markham's Ball; but you may depend on it, that mine much exceeds it in value.

Take of Anniseeds Powder, Fenugreek, Liquorice Powder, Flour of Brimstone, each 4 oz.; Grains of Paradise, in fine Powder, 5 oz.; 4 ounces of Liquorice, cut small, and dissolved in White Wine; 1 oz. of Saffron, pounded small; 1 oz. of Oil of Anniseeds; 8 oz. of Olive Oil, and 8 oz. of Honey.

Bray them all well together till they come into paste, and if they should be too dry, add a little more olive oil and honey. The dose is about two ounces, and may be given three or four times a day, if needful. These balls consisting of warm, opening ingredients, are of great use; and given in small quantities, about the size of a pullet's egg, will encourage a free perspiration; but in case of a Fever they should be given with the greatest caution.

It will be of great use to put scalding hot bran into the manger, that the horse may hold his head over it, and receive the steam up his nostrils, which will cause a running from them, and relieve him very much. I have known asarabacca, dried and rubbed to powder, and blown up the nostrils, to cause a discharge; for when a horse has caught a violent cold, he is often troubled with a pain in his head, which a good discharge at the nose is very likely to cure. For the same purpose the horse should be warmly clothed, especially about the head, neck and throat; as it has a tendency to promote a running at the nostrils.

By this simple method, with proper care, hot mashes, and warm water, most colds may be cured; and as soon as the horse begins to feed heartily, and snorts after coughing, an hour's exercise every day will greatly hasten the cure. If the legs swell, and the horse be full of flesh, towels are necessary.

#### A COUGH, AND ASTHMA.

Among all the diseases to which this noble creature is subject, none has given more perplexity to Farriers than a settled Cough; indeed it too often defies all the attempts of art, and the horse frequently becomes *Asthmatical* or *Broken-winded*.

**CAUSES.** The causes are various. Sometimes it is owing to colds imperfectly cured; sometimes to pleuresies, or malignant fevers, which have left a taint upon the lungs or other vessels; sometimes to small eruptions in the glands, which cause the lungs to be much larger than they ought to be, and a quantity of phlegm, and mucilaginous juices to stuff up the glands and branches of the windpipe; and sometimes fleshy substances engendered in the blood vessels; for all these things hinder a free respiration, and excite a cough.

It is of the utmost importance to distinguish one kind of cough from another, and this makes the disorder so hard to cure; for it cannot be cured till the seat of the complaint be found out.

If the cough be of long standing attended with a loss of appetite, wasting of flesh and weakness, it denotes a Consumption: and that the lungs are full of knotty, hard substances, called tubercles. When the cough proceeds from phlegm and mucilaginous matter stuffed up the vessels of the lungs, the flanks have a sudden, quick motion, the horse breathes thick, but not with his nostrils distended like one that is broken-winded; his cough is sometimes moist, and sometimes dry and husky; before he coughs he wheezes, and sometimes throws out of his nose or mouth large pieces of white phlegm, especially after drinking, or when he begins or ends his exercise; and this discharge generally gives great relief.

**CURE.** If the horse be full of flesh, take from him a moderate quantity of blood. The next day give him scalded bran, and in the evening the following ball:—

1 oz. of Powder of Anniseeds.  
1 do. Liquorice Powder.  
1 drachm of Colozel, eight drachms to an ounce.

Work them into a ball with Barbadoes tar. Give this ball the last thing at night, and be careful to keep the horse out of wet, and from cold water the next day. On the next morning give the following purge:—

1 oz. of Barbadoes Aloes.  
1 do. Castile Soap.  
½ do. Powdered Ginger,  
1 drachm Oil of Anniseeds,

Bray them together in a mortar, with a little syrup of buckthorn to make them into a ball, which is to be given in the morning; and plenty of warm water, and walking exercise, till it be wrought off. (It will not work the first day.) In three days after give six ounces of the Cordial ball in a little warm ale, fasting, and to fast two hours after. Repeat the Calomel ball, physic, and cordial ball six days after, in the same manner as before. Let the horse's hay be sweet, and his manger-meat

scalded bran, with a spoonful of honey in each feed:—let him have walking exercise in the open air, but be careful of wet and of cold water.

When this course has been pursued two or three times, give two or three ounces of the cordial ball every morning. The above method will remove most Coughs, but if it fail try the following:

- 1 oz. of Gum Ammoniacum, in fine powder.
- ½ do. Gum Galbanum, in powder.
- 2 drachms of Saffron, brayed.
- 2 do Assafœtida, in powder.

Work them up with honey, or Barbadoes tar into one ball; roll it in liquorice powder, and give it fasting, and to fast two hours after. This ball must be given every morning, for six or seven times, before it can have a fair trial; but if the horse be not a good one it will be thought too expensive. In the cure of this disease, the diet should be very moderate, the usual quantity of hay should be abridged, and sprinkled with water, and the usual allowance of corn and water divided into several portions; for with these regulations in diet, the disease will soon be cured; and where it is incurable, the horse will be so far recovered as to be able to do a great deal of work.

It way not be improper here to add that some young horses are subject to coughs when cutting their teeth, and their eyes are also affected from the same cause. In these cases always bleed, and if the cough be obstinate, repeat it, and give warm mashes, which are often sufficient alone to remove the complaint.

When young horses have a cough that is caused by worms, as is often the case, such medicines must be given as are proper to destroy those vermin, of which I shall inform you in the chapter on worms.

### FLAX VS. COTTON.

A subject of the greatest consequence to Ireland is now engaging the attention of Agriculturists and Manufacturers in the old country. This subject is no less than the practicability of spinning Flax and Cotton in conjunction. Several experiments have been made and have resulted in the most gladdening success.—These experiments were made under circumstances to test the difficulties of the process in their most complicated forms. The quantity of cotton used was so small and the result so perfectly satisfactory as to not only give promise of a large consumption of the mixed material, but to hold out the certainty of the cotton being shortly dispensed with altogether, and the flax spun alone. The quantity of the former used in the experiments was so very small as to prove that the latter can be spun into yarn of as fine a thread. By the process already tried—the mixture of the two materials—a decisive saving of 21. sterling in the pound was effected. This is an important item as effecting the price of all cotton goods. When we consider that the soil and climate of Ireland are peculiarly favorable to the growth of Flax, such a discovery as this cannot be viewed but as of the vastest importance to her prosperity as a nation. We feel glad to notice any subject which may tend to the advancement of that seemingly doomed country, more particularly when it will directly enlist the industrial and native skill of her people.

The following article on this subject we cut from the London *Morning Chronicle*. It should be read by every farmer in this country, for the growth of such an important article as Flax has been sadly overlooked in Canada:—

“ We have great pleasure in recording some further progress which has been made in the experiments connected with the preparation of flax cotton and flax wool. We yesterday had an opportunity of inspecting some samples of mule yarn, spun upon cotton machinery, composed entirely of unbleached flax fibre.—It may be remembered that in our earliest notice of the subject we stated that some thread had been spun wholly from flax fibre. The thread so produced was, however, spun from the bleached fibre, which it was supposed would possess greater facilities for spinning, in consequence of its more minute division, than that which existed in the unbleached fibre. The result of the experiments, however, proves that the flax fibre may be spun as easily in the unbleached as in its bleached state. The samples of yarn submitted to us were of a strong and useful character, apparently equal to about 16's cotton, and, considering the nature of the machinery employed, might be considered very creditable to the spinner. So far, therefore, as the experiments connected with the spinning of the fibre are concerned, they may be considered as having now been brought to a successful conclusion. The flax had been spun into yarn in the proportion of one half, two-thirds, three-fourths, and four-fifth flax, and the remaining portions cotton.

Yarns have also been spun from the pure flax fibre, in the bleached and in the unbleached state upon the existing machinery, and with the most complete success; thus demonstrating to the letter the accuracy of our statements made some weeks since, that it was practicable to spin flax, either alone or in combination with cotton, upon the existing machinery.

Some samples were also yesterday shown to us of prepared flax suitable for spinning in combination with wool, with the cloth woven from this mixed material. The cloth from this mixture has been woven as wide as 54 inches; and in order to test the “felting” properties required in this very extensive branch of our manufacture. The cloth exhibited to us was piece-dyed the wool taking black, and the flax a light slate colour; it was of excellent quality, and no doubt exceedingly durable, while it is evident that, woven in the proportion of half flax and half wool, the price at which it could be sold would be considerably less than that of cloth formed entirely from wool.

In connection, however, with the yarns produced from different proportions of flax and cotton, it became a matter of considerable importance to ascertain how far yarns composed of two materials originally differing so widely in their character could be made capable of being dyed in a uniform colour. To persons ignorant of the complete change in the character of the flax fibre brought about by the process of M. Claussen it would appear impossible to attain this uniformity of colour; and it was no doubt owing this ignorance of the mode of treating the material that Professor Calvert in his lecture recently delivered before the Society of Arts on the bleaching of flax and cotton, ventured to assert that it would be impossible ever to bring them to act in harmony together, or the one to be used as a substitute for the other.

In order to insure a perfect uniformity of colour, in these mixed yarns, it is of course necessary to treat the flax in such a manner as that it will retain precisely the same rich and opaque colour as would be imparted

to cotton, and, from the difference in the structure of the fibres of the two plants, it is obvious that the same materials would produce different shades of colour upon the two substances. The mode of treating the flax fibre pursued by M. Claussen, which we stated a few days since, that of destroying its cylindrical character, and changing it into a cotton-like substance, completely obviates this difficulty and renders perfectly easy that which would otherwise have been impracticable viz, the imparting an equal and uniform colour to yarns formed from a mixture of the two substances.—As a practical proof of this, several bundles of yarn spun from equal proportions of flax and cotton, and dyed in various colours, have been submitted to us, after the most minute inspection has not enabled us to detect any of the different shades or colour which might have been expected in yarns composed of two such different materials. As a proof of the perfect command which M. Claussen possesses over the materials with which he deals, we may state that some samples were also shown to us of yarns spun from the pure flax fibre, prepared to mix with silk, and dyed in colours possessing all the brilliancy and lustre peculiar to those of that material.

Whatever improvements may yet be made in the preparation of these materials and in the various details required to ensure perfection, nothing now remains to be done, so far as the principle of adapting flax to cotton or wool machinery and of dyeing the yarns or fabric is concerned, and we sincerely trust that our agriculturists will not neglect the immense market which these discoveries are calculated to open up for any amount of flax which they may produce. Flax may be grown upon almost any soil; all the objections that are previously entertained against its growth, on the ground either of its exhaustive character or the difficulty of its preparation for market, are now removed; and it has been proved to demonstration, by Mr. Warnes and numerous other agriculturists in England and Ireland, that it is a highly remunerative crop.

With respect to this demand for the article we need only say that one thousand tons of cotton are required daily as food for the factories of Manchester, and if but one-half of that enormous demand can be supplied by flax, the produce of 2,000 acres daily, or 700,000 annually, will be required, while not less than 500,000 acres are wanted to furnish the quantity now consumed in our linen manufactures and which with but a trifling exception, is derived from foreign countries. So far as the manufacturers are concerned the question now asked is not, "will the experiment succeed?" but, "whence shall we be able to get the necessary supply of flax?" Several of the leading manufacturers of Manchester and its neighborhood have already expressed their determination to sow large portions of their land and with flax. This conduct on their part is well calculated to inspire confidence in our agriculturists, and should induce them to endeavour to obtain possession of the new market thus called into existence, before it shall have been occupied by the foreign producer. A supply of the raw material must be obtained by the manufacturer; his mill must be kept at work! and unless some steps be immediately taken in the matter, our farmers will by their supineness, have given to foreign countries the same monopoly in the supply of flax for the cotton and woollen, as they now possess in the linen manufactures of the country.

#### FLAX COTTON.

We have seen a specimen of the cotton produced from flax, and it exactly resembles the ordinary cotton only that it appears to be much more lustrous.

**LINEN AS A SUBSTITUTE FOR COTTON.**—The *Maysville, Ky., Post Boy*, referring to the recent interest which has been awakened in the public mind by the experiment now making with a view to substitute flax for cotton, says:—"We have a sample before us of "flax cotton" which is as white and soft, and fine as any cotton, but of a richer and more glossy silk-like appearance, and which evidently can be spun into very fine yarns as cheaply as cotton. Now this material can be produced from unrotted flax for seven cents per pound! And we know that unrotted flax can be procured so that the lint shall stand at one and a half cents a pound, leaving a pretty wide margin for the preparation to bring the material to seven cents. It is known that there is no object in growing cotton for a less sum, so that it is far from being an impossibility that linen may yet be produced as cheap as cotton.

We understand that the inventor, Dr. Leavett, and his associates, are making their arrangements to bring out their inventions promptly and vigorously; that they throw them wide open to the public, and afford every facility possible for the establishment of linen factories, by contracting to furnish the machinery as expeditiously as possible, at fair prices, and with such guarantees as the safety of the manufacturers will require. They propose to put out different parts of this work in different machine shops throughout the country, east or west, near where the factories are to be built, as is frequently done with cotton factories, so that as little delay as possible may be occasioned in getting factories into operation.

We also understand that they are now in negotiation with several companies who are preparing to go into the business.—*Cin. Gazette.*

#### STRONG VITALITY OF SOME VARIETIES OF WEED-SEEDS.—A correspondent of the *Al. Cultivator* says:—

The garden which I occupy had been neglected before it came under my care in the autumn of 1842.—There was in it a small triangular plat, of less than two square rods, surrounded by gooseberries. This I found covered with the yellow dock. It has now been under cultivation for eight years, and has occasionally been deeply spaded. I think it fully within the limits of truth to say that I have destroyed upon it three crops of young plants each year; and the end is not yet.—The fact obviously is, that each year of cultivation has thrown up seeds that had previously lain too deep cast and removed from the air to germinate. All seeds have not this strong vitality. Corn and beans deeply planted will speedily rot, but potatoes and peas will grow from any depth at which they ever become buried by the deepest cultivation.

Let farmers beware how they neglect a crop of weeds under the impression that a little extra cultivation, the next year, will make up the difference. It may be so with some varieties, but with many it will not, as they will discover, to their expense and sorrow, in long subsequent years. Query? Who has experimented on this subject, and will give the public a table exhibiting the different vitality of weed-seeds.

**EFFECTS OF RAILROADS ON AGRICULTURAL PRODUCTS.**—The effects of railroads in modifying the agriculture of different sections, is illustrated by the example of Massachusetts. Since 1840, about 800 miles of railroads have been laid in that state. According to the returns of the assessors, it appears that the number of horses in the state, has increased from 60,030 in 1840, to 74,060 in 1850. This is remarkable, especially when we consider the fact that the railroads have

displaced many lines of stages on which numerous horses were employed; and it shows also that the increase of business occasioned by the railroads, gives employment to an increased number of horses. From the same returns we learn that cattle have increased from 278,737 in 1840, to 299,000 in 1850, while in the same period, sheep have declined from 343,390 to 179,537. The produce of wheat has declined from 101,173 bushels to 28,487, while Indian corn has increased from 1,775,073 bushels in 1840, to 2,295,856 bushels in 1850.

**AN AGRICULTURAL CONVENTION** composed of delegates from the various county agricultural societies in Massachusetts, was held at the State-House in Boston on the 20th of March last, for the purpose of taking measures in regard to the improvement of agriculture. Hon. M. P. Wilder was chosen president, and addressed the convention in relation to the object for which it had been called. Several other addresses were made, and a series of resolutions reported and adopted, one of which recommended the establishment of a Central Board of Agriculture to be composed of delegates from the various agricultural societies of the commonwealth—the Board to meet semiannually or oftener, and to recommend to the societies measures for action; and to consider all subjects pertaining to the interests of agriculture. Another resolution related to the establishment of Agricultural Schools in the state, in which it was held to be the duty of the government to aid; and the last resolution suggested to the legislature the propriety of reserving the proceeds of the sales of the public lands belonging to the State—"from and after the period when the Common School Fund shall have reached the maximum fixed by the act of 1834—for purposes of education and charity, with a view to extending that aid and encouragement to a system of agricultural education."—*Al. Cultivator.*

**IMPROVEMENT IN DRILL-MACHINES.**—An improvement in drill-machines has been made in England, by which a sufficient quantity of water may be deposited with the seed to ensure its germination, even in the driest time. In many instances this may be of much importance. It often happens that sowing must be deferred, after all preparations are completed, or else the seed must be put in the ground with more or less risk of its failure. Sometimes there is barely moisture enough to swell the seeds, without fully developing the root and blade, and if it shrinks under these circumstances, it will seldom start again. By wetting the soil, as is said to be done by this drill, so as to bring up the plants quickly, all this risk may be avoided, the crop may be sown without any delay, and may frequently be forwarded considerably from what it could have been if sowing had been delayed till the earth was moistened by rain. For root-crops especially, this will be of much advantage. The same machine also drops ashes, bone-dust, guano and other fine manure, in the drill with the seed.

The strong men usually give some allowance even to the petulance of fashion, for that affinity they find in it. Napoleon, child of the revolution, destroyer of the old noblesse, never ceased to court the Faubourg St. Germain; doubtless with the feeling that fashion is a homage to men of his stamp.

TRUE charity consists in the performance of every duty of life, from the love of justice with judgment.

## Horticulture.

### HORTICULTURAL MISCELLANIES.

[From the Cultivator.]

**BLACK KNOT ON THE PLUM.**—Benjamin Hodge, of Buffalo, N. Y., who has raised and sold trees for the last thirty years, says he has never had this malady among his plum trees till the present season, and that in the instance cited, it was introduced from the East. One case was with two trees which came from Boston; in another instance twenty trees out of some hundreds received from the eastern part of the State were effected; and a few trees grown from scions received from Massachusetts were attacked in the same way.

**THE VICTORIA REGIA.**—According to Spruce's voyage up the Amazon, this remarkable plant, growing in water, has leaves four feet in diameter, which increase to eight feet during the rainy season. It is even asserted that some have attained twelve feet in diameter. So great is their size and so perfect their symmetry, that when turned up they suggest some strange fabric of cast iron just taken from the furnace; its color, and the enormous ribs with which it is strongly barred increasing the similarity. At the exhibition of the London Horticultural Society last summer, a flower with two leaves of this plant were exhibited, the latter measuring each five feet ten inches in diameter.

**EARLY SECOND CROP OF GRAPES.**—The Gardiner's Chronicle states that at a late summer's exhibition of the London Horticultural Society, which closed on the 13th of 7 mo. (July,) "there was a bunch of Hamburg grapes, perfectly colored from Mr. Wilmot of Isleworth, which formed part of a crop ripe upon vines that were loaded with ripe fruit last February!"

**OLD FOREST TREES.**—We once counted the rings of a large tulip tree at the newly cut stump, in Western New York, which we made out ninety years old at the discovery of America by Columbus. This tree was 124 feet high. The pines at the west in the Pacific coast, which attain such enormous dimensions, have in some instances numbered nine hundred rings. Such a tree, consequently, would have served as a bean-pole in the time of Genis Khan, and was a tall towering forest tree of two hundred years during the conquest of Tamerlane.

**LARGE ORCHARDS.**—Dr. Kennicott states in the Horticulturist, that eighteen miles above Peoria, Ill., Isaac Underhill has five hundred acres in orchard. He has in the last two years planted out 12,000 grafted apple trees, and 7,000 peach trees.

**STIR THE SOIL.**—The greatest horticulturist, almost, of the present day, says:—

If I had a 'call' to preach a sermon on gardening, I should take this for my text: **STIR THE SOIL.**

**HARD TO SUIT ALL.**—At the American Congress of fruit growers, in 1848, a fruit committee of nine persons prepared a select list of fruit worthy of general cultivation. Although many hundred sorts of the pear have born fruit in this country, all perhaps pronounced 'excellent' by the nurserymen who sold them, yet there were only two that the fruit committee could *unanimously* agree upon to recommend, namely the **SECKEL** and **BARTLET**.

**DEEP SOIL AND DEEP ROOTS.**—A. J. Downing says: "I have seen the roots of strawberries extend five feet down into a rich soil; and those plants bore a crop of fruit five times as large, and twice as handsome and good, as the common product of the soil one foot deep."

**CROCUS.**—There are upwards of one hundred varieties of this vernal flower in cultivation, attended with universal success. They delight in rich soils, and may either be planted in beds or rows, at least two inches deep, and six inches from row to row. They seldom require removal; every three or four years will be sufficient. They can be purchased at seventy-five cents to two dollars per hundred, according to quality. When they are done blowing, the foliage should not be removed till perfectly decayed.

**PRUNING.**—It is said that the donkey first taught the art of pruning the vine; man being merely an imitator on seeing the effect of cropping the points of the young shoots. It is not always the greatest wisdom to originate, but to turn to good account whatever by thoughtful observation comes within our reach.

**LUCK WITH TREES.**—We have noticed that certain men always have much finer peaches and pears and plums than most of their neighbors, and are called *lucky*. Their luck consisted in the first place, in doing everything well—taking what their neighbors call foolish pains—leaving nothing unfinished; and in the second place, in taking good care of what they had; that is, giving their trees wide, deep and mellow cultivation, applying manure when necessary, and especially the liquid manure from the chamber and wash tub. Great pains taken, whether with fruit trees or with children, scarcely ever fail to produce good results.

#### PLANT SHADE TREES.

The subject of transplanting shade trees to ornament our yards and streets is one of general interest, and we hope the following remarks may be deemed seasonable, and serve to incite to action in the matter. In country and city, they add so much of health, beauty and convenience, that all who may, should seek to extend their benefits.

We do not now intend to say any thing of the kinds best adapted to the streets of villages, the door-yards or dwellings, or the road sides of the country, but there can be no great difficulty in getting any where those varieties which experience has proved to be the most durable, orna-

mental and useful. Judgment and taste should be exercised in this matter, as in all others. With those trees that put forth their leaves earliest should be mingled those that part with their foliage latest, so that we can see the first buddings of spring and the last verdure of autumn. The locust, maple, beech, oak, linden, willow, chestnut, and many others are all well fitted for this purpose, and may be safely used.

It is to be hoped that the residents of all our cities and villages, who have not already done so, will not allow the season to pass without at least making a commencement towards rendering more beautiful their streets and walks by setting out appropriate trees. The expense and labour attending this very desirable improvement are so trifling, and the benefits resulting from it so general, that all should engage with enthusiasm in the agreeable work. It has been truly said that there is nothing that makes home more attractive or that is more pleasing to the eye of the stranger, than the trees that decorate the door yard or the way side, and cast their cool and refreshing shade over the weary in the full tide of a midsummer sun. It is in such places that the traveller seeks rest, and at that hearth there must be peace, when beauty makes so pleasant the path that leads to it.

How much better is it to have finely shading trees along our walks to lure to their spreading branches those little warblers whose songs we all love so well to hear, than leave them without these cheap, but very useful ornaments. Let there be an abundance of shade trees—there is little danger of their being too many. No dwelling should be without them. The happy influence which a general improvement in this respect would have, will a thousand times repay all trouble it can cause or cost.

It would be well if each one would do this much for himself and village—to plant a tree and so take care of it that it shall grow and live. If the planter of it cannot always repose under its shadows, somebody else may, and who would not leave some cherished memorial behind a witness to the kindly emotions of a noble heart, showing that it was not wholly unmindful of the happiness and wants of others.—*N. Yorker.*

#### IRRIGATION OF GARDENS.

From repeated experiments we are induced to draw the conclusion, that next to manure the great prime mover in successful culture, there is nothing more important to vegetable growth in many cases, than irrigation. Practical gardeners, in countries far more moist than our own regard it as indispensable, and a large share of their success depends on copious waterings.

Some interesting instances, which have recently occurred may be worth stating. Two rows of raspberries stand on ground in every respect alike, except that one receives the drippings from a wood-house and the other does not. The watered row is fully four times as large in growth as the other. Again—the berries on the bushes of the Fastolph and Franconia raspberries were, at least twice as large when the soil was kept moistened, as afterwards when allowed to become

dry; a repetition of the watering again doubled their size. Again—a near neighbor, who cultivates strawberries for market, and who uses a water-cart for irrigating the rows, raised at the rate of one hundred and twenty bushels to the acre, on common good soil by this means; and he noticed that where the cart was left standing over night, so that the water gradually dripped from it, for some hours, upon a portion of the plants, the fruit had grown to double the size of the rest in twenty-four hours.

It should be observed that these advantages of a copious supply of water pertain chiefly to small or annual plants. The roots of fruit trees being larger and deeper, are to be supplied with moisture in a different way; that is, by a deep, rich, mellow soil, kept moist by cultivation, or by covering thickly with litter.—Water applied to the surface rarely descended so low as the roots, and only harden the soil to a crust.—*Lib. Cult.*

Irrigation of gardens should always be accompanied with some soluble material suited to the requirements of the plants. Rank feeders, like raspberries, will be benefited by a solution of night-soil, guano, &c., &c.—*Mercersburgh Weekly Journal.*

#### CHOOSING A WIFE.

An article lately appeared in the Religious Recorder on this subject, and contains some peculiarly happy and just remarks, which we cannot forbear to transfer to our columns, for the good of all concerned. Excellent as is all the advice offered, we trust our fair readers will agree with us, that the best of the whole is the conclusion:

It is desirable to have an intelligent companion. I do not insist that your wife shall have what is understood by the term "an education." There are many who have that, who are about as intelligent as barbarians. But seek for one who is, in the habit of exercising her intellect. Who reads, and reflects, and has an inquisitive mind.

It is desirable to have a wife who is domestic. A street spinster, a gadding news-carrier and busy-body, is the last woman who should have a husband. A young woman, who is more fond of gossip and company abroad, than of domestic duties, is not fit to be married.

Be not anxious to get a wife who has riches. If this runs much in your mind, I shall be sorry for the woman who has the misfortune to become your wife. If you make this a paramount consideration, be not surprised, if you find yourself yoked with a woman who has not many personal qualifications that are to be desired.

When you have obtained a good wife, see that she shall be equally secure of having obtained a good husband.

**THE MEMORY OF THE DEAD.**—It is an exquisite and beautiful thing in our nature, that when the heart is touched and softened by some tranquil happiness, or affectionate feeling, the memory of the dead comes over it most powerfully and irresistibly. It would almost seem as though our better thoughts and sympathies were charms, in virtue of which the soul is enabled to hold some vague and mysterious intercourse with the spirit of those whom we dearly loved in life. Alas! how often and how long may those patient angels hover above us, watching for the spell which is so seldom uttered and so soon forgotten!—*Dickens.*

**TO CORRESPONDENTS**—R. S., London—Your communication has been received, and we hope to attend to your enquiries in our next.

## IMPORTANT TO FARMERS AND GARDENERS!

THE Subscriber is prepared to supply in any quantities to suit purchasers,

### GROUND BONE FOR

**MANURE.**  
It is quite unnecessary to state here the superior qualities of Ground Bone over any other kind of Manure, especially for turnips, as it is well known to all practical agriculturists.

PETER R. LAMB,

Near the Toronto Necropolis, East of Parliament Street N B. All Orders or Communications left at Mr. T. Lailey's Clothing Store, King Street, or through the Post Office, will be punctually attended to.

April, 1851.

33-3m

## AGRICULTURAL SEEDS.

JUST received and for sale by the Subscribers.

Blood Red Mangle Wurtzel,  
Yellow Turnip,  
Spring Veitches,  
Superior Sugar Beet, equal to Mangle Wurtzel for feeding cattle,  
Turnip Beet,  
White Belgium Field Carrot,  
Purple Top Swedo Turnip,  
Skirvings do do,  
Laings do do,  
Yellow Aberdeen do,  
White Globe do,  
do Flat do,  
Early Stone do,

—ALSO—

A general assortment of Fresh English Garden and Flower Seeds.

## ONION SEED.

A few Barrels of FINE LARGE RED ONION seed, for sale by

LYMAN BROTHERS, & Co.

Toronto, April 1st, 1851.

## FLAX SEED.

100 BUSHELS FLAX SEED of a superior quality, and cleaned expressly for agricultural purposes.

LYMAN BROTHERS, & Co.

## CANARY SEED.

25 BARRELS super for English Canary Seed.

LYMAN BROTHERS, & Co.

St. Lawrence Buildings,  
Toronto.

Toronto, 1st May, 1851.



## DOMESTIC ANIMALS AT AUCTION.

THE postponed yearly sale of FULL BRED SHORT-HORN and IMPROVED DIARY STOCK, consisting of about fifty head, will come off at my farm on Tuesday, June 24, 1851 at 12 o'clock, M. I shall sell all the improved Diary Stock which is composed of the finest Short-Horn, with a slight cross of Amsterdam Dutch, which some writers say was part of the original ingredient which composed the improved Short Horns.

I am now breeding the Short-Horns, Devons, and Ayrshires, each separately and pure, which owing to the limits of my farm, make it necessary to confine myself to those three breeds. By the awards of the State Agricultural Society, the American Institute, and my own county Society, [with the exception of last year, when I was not a competitor at either.] it will fully appear that I have been a very successful exhibitor. The cow which won the FIRST PRIZE as a milker, at the American Institute last year, was bred by me, and composed of the above alluded to Diary Stock. Several of the Bulls will be of the most appropriate age for efficient service for the coming season. All cows and Heifers old enough, will be warranted in calf at the day of sale, by my imported Bull "the Lord Eryholme," or my celebrated Bull "Lamar-tine."

I own two through bred Devon Bulls, one the celebrated old Major, the other, one and a half years old imported by me from Devonshire. One of the above animals will be sold—which one, I have not as yet determined.

A full catalogue, with the pedigree of each animal, will be published in due time, with minute description of sale, &c.

I also have a number of Suffolk Sows, in pig to my imported Boar, most of the progeny of which will be old enough to dispose of on that day.

I also have about 20 South Down Ewes, most of which I imported from the flock of Jonas Webb, and now in lamb to imported Buck "Babraham." Some of their Buck Lambs will be offered at auction on that day.

This sale will not only offer an opportunity to obtain Stock from my previous Herd, but will also enable persons to procure calves from my imported Bull, lambs from my imported Ram, and pigs from my imported Boar—all of which animals were recently selected by me in person, when in England.

The mode of warranting the Cows and Heifers in calf, is this. In case they prove not to be so, it shall be optional with the purchaser, on his *certificate of the fact*, either to receive from me \$25 (say twenty-five dollars), or to send the cow to my farm, and I will keep her the proper time (free of expense) to have her got in calf to either of my Bulls, which he shall choose. I will give \$25 for any heifer calf from either of the Cows or Heifers sold at the sale, delivered on my farm at two weeks old.

Stock purchased to be sent a distance, will be delivered on ship-board or railroad in the city of New York, free of risk or expense to the purchaser.

Persons living at the south, in a climate to which it would not be well that stock should not be transported, at that hot season of the year, may let such animals as they may purchase, remain with me until the proper season, and I will have them well taken care of, and charge only a reasonable price for their keep. One of my objects in breeding improved domestic animals, is to assist in distributing throughout the Union, deeming it one, if not the most important feature to promote profit to the cultivators of the soil, and to benefit the consuming locality at large.

All communications through the Post please prepay, and I will prepay their answers, and also a Catalogue if required. Catalogues will be to be had at all the principal Agricultural Warehouses and offices of the principal Agricultural Journals, on and after the 1st day of June next.

Persons wishing to view the stock at any time will find my superintendent, Mr. Wilkinson, to give them the desired information when I am not at home.

Dated this 4th day of March, 1851 at Mount Fordham, Westchester County, eight miles from the City of New York, by Harlem Railroad.

April 2.—3t

L. G. MORRIS.

POSTSCRIPT.—I decline selling any Stock by private sale, so as to offer the public all the animals I have to part with without having any previously selected from the herd and all animals offered will be positively sold.

## GREAT SALE OF SUPERIOR THOROUGH BRED SHORT HORN CATTLE.

The subscriber having more stock, than he can well sustain on his farm, will offer at public Auction about 30 head of his improved short horn cattle, consisting of Bulls, Cows, Heifers and Heifer and Bull Calves, on the 26th day of June next, at his farm 2½ miles from the City of Troy.

It is known to breeders of improved Stock, in this country, and in Canada, that the proprietor of this herd, during the past 12 years, has through the medium of importations, from England, and selections from the best herds in this country, spared no expense to rear a herd of Cattle from which superior animals could be safely drawn, for improvement and crosses upon other herds. His importations have been derived from that eminent breeder, the late Thomas Bates, Esq. of Kirkcarington Yorkshire, England, which herd it is well known has recently been disposed of at public sale by his administrators, and dispersed in many hands, and can no longer be resorted to as a whole for improvement. The announcement of that sale created great interest, and all short horn breeders in England seemed emulous to secure one or more of these animals, to mingle with the blood of their own herds, and at the day of sale, there was found assembled the largest audience ever before witnessed upon a similar occasion, numbering as was said from 4000 to 5000 persons, and among them the best breeders in England, and several from other countries, some of the animals bringing prices that seemed incredible to many.

In the herd now offered for sale will be included, the imported Bull Duke of Wellington, and the premium Bull Meteor, these are Bates's Bulls, and their reputation as stock getters are two well known, to need any comment. I am however authorized by Lewis F. Allen of Black Rock, one of the most prominent breeders in this country, and who has had ample means of forming a judgment, that in no instance to his knowledge had these two Bulls been bred to short horn Cows of other herds, previously imported into the United States but what the produce were superior in general qualities to such herds.

The most of the stock which is now offered for sale, has been bred from these two Bulls and the proprietor, having a young Bull more remotely connected with that portion of the herd, he retains (being about 14 in number) can spare these two valuable Bulls. There will be in the stock offered for sale, 6 young Bulls from 8 months to about 2 years old, in addition to the two named above, and the remainder of the stock will be composed of Cows, (most of them possessed of extraordinary milking qualities) Heifer and Heifer Calves. It is believed that no herd of short horns has ever been offered for sale in this country, exhibiting more of the valuable combinations of qualities which contribute to make up perfect animals. A catalogue containing the pedigrees of these animals, will be ready for delivery at an early period in which the terms of the sale will be particularly stated. A credit will be given from 6 to 8 months. Gentlemen are invited to examine the herd at their convenience.

GEORGE VAIL.

Troy, near Albany, New York.