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"THE EARTH BEING MAN'S INHERITANCE, IT BEHOVETH HIM TO CULTIVATE IT PROPERLY."

Vol. I.

FREDERICTON, N. B. FEBRUARY, 1845.

No. 10.

THE FARMER'S MANUAL,

Containing Sixteen Pages Super Royal Octavo, will be published every Month by James P. A. Phillips, at the Office of the "HEAD QUARTERS," between the Central Bank and Messrs. Gaylor & Thompson's Store.

TERMS.—Five Shillings per annum, when paid in advance, Six shillings and three-pence, if not paid within six months, and Seven shillings and six-pence, if not paid before the expiration of the year.—Single numbers, Seven pence, half-penny.

ADVERTISEMENTS will be inserted for Four shillings and Six-pence, if not exceeding 18 lines, and in the same proportion for every line above that number.

☐ Ten per cent. will be allowed to Agents for collecting and forwarding money.

THE FARMER'S MANUAL.

We promised, in our last number, to prove that system in the management of land already cleared is one of the first objects which should be considered by a judicious Farmer.

Almost every person conversant with agriculture will confess that Scotland is by no means favored by nature in the general quality of its soil, or the goodness of its climate; yet Scotland stands equal, if not superior, to any other country in the world, in the improvements that have been made in good husbandry.

It might be impossible to trace with correctness the various changes which have placed that portion of the British dominions in advance of the Sister Kingdoms, but we are certain that the work on Agriculture, published by Sir John Sinclair, contributed in a great degree to the happy effects of which we are now treating. To this writer the people of Scotland are indebted for the origin of their present prosperity; and we have no hesitation in saying, that were the Agricultural Societies in New Brunswick to have judicious selections from his works kept constantly in circulation among the rural population of this Province, it would be productive of much benefit. We all know, or ought to know, that the landed proprietors in Great Britain and Ireland have studied for themselves, and

spared no pains in bringing to their aid scientific men, of every nation, who could assist in rendering the soil, of which they are the owners, more valuable. The result of all their enquiries depend first upon adopting some system in their treatment of the soil. Should any one unacquainted with the subject doubt this, we subjoin a clause introduced into almost every Lease which has been given since the days of the eminent agriculturist, whose name we have mentioned.—It runs thus:—

"Moreover the said A. B. hereby obliges himself, and his foresaids, not to over crop or waste the ground hereby let, but to manage the same according to the rules of good husbandry; and in particular he obliges himself and his foresaids, during the last seven years of the lease to manage and crop the said farm, according to a seven course shift, and he shall leave at the expiry thereof one seventh part of the land in first years' grass properly laid down with clover and rye grass seeds, after green crop or fallow properly dunged, for which grass he shall be entitled to be paid at the term of Martinmas after his removal, according to the value thereof to be ascertained by two proper judges to be named as aforesaid at the term of Whitsunday—and one seventh part for turnips or fallow for which he shall also have an allowance to be ascertained as aforesaid, and so on according to the rules of a seven course shift with his whole land; as also the said A. B. shall be bound to leave the whole dung made upon the farm after the first day of July in the year preceding his removal, carefully gathered together for the use of the proprietor or incoming tenant, to whom the same shall belong on payment of the value thereof, to be ascertained by two proper persons to be mutually named by the parties. The proprietor or incoming tenant, shall have right, to sow grass seeds in such parts of the ground hereby let, as may have been in green crop or fallow for the year preceding the expiry of the lease, which the said A. B. shall be obliged to harrow and roll in along with the grain crop without any allowance."

The original copy of this document is in our possession, and contains other matters which are worthy of consideration; but having confined ourselves to the consideration of *system* alone, we shall not now touch on them. The climate and soil for which the seven course system was adopted, is in every way unfavorable to the climate and soil of this Province, and the land here might perhaps admit of what is called a *five course shift*, which would leave the land only two instead of three years in grass; but this is a matter which can only be settled by a strict enquiry by those who have experience, and can testify to the general capabilities of the soil, in the particular district to which they belong. The settlement of this question alone would amply repay the trouble and expense attending the formation of local Agricultural Societies, in connection with those already in operation.—In our next number we shall offer to our readers some remarks on the system adopted by Agriculturists in Great Britain and the United States, in the arrangements of their buildings and preservation of their grain.

We have been favoured with the following extract of a letter from a gentleman of St. Mary's in this County on the subject of "*Guano*."

"I have tried it in three different situations in the garden, on a piece of meadow land after manuring, which had produced a ton to the acre, and on a piece of cold clay land nearly covered with green moss, and which had not produced three cwt. to the acre.

I could discover no effects in the garden, but on the grass land the results were beyond any thing of the kind I have ever seen. The *Guano* was sprinkled lightly over the soil at the rate, 1 should judge, of about 7 bushels to the acre, and in the course of a week there was a very perceptible improvement. The moss died and rapidly decayed, and Timothy and Clover grew up where not a blade was seen before. At the expiration of about two months I mowed the pieces carefully and also pieces of the same size adjoining which had not been top-dressed, and upon weighing the produce I found that the crop on the first piece was as 11 to 4 $\frac{1}{2}$, giving an increase from the *Guano* of 6 $\frac{1}{2}$; and on the second piece as 5 to $\frac{1}{2}$ —making an increase of ten to one."

CHARLOTTE COUNTY AGRICULTURAL SOCIETY.

The annual meeting of the Society, was held on the 14th inst., at Copeland's Hotel.

Dr. Frye, President, in the Chair.

The 25th annual Report was then read by the Secretary, which was unanimously adopted, and the thanks of the meeting were given to the Secretary, for his able Report.

It was then moved that the President leave the chair, and the Hon. Thomas Wyer take the same. The officers were then balloted for, and are as follows:—

President—Dr. Frye; *Vice-Presidents*—Hon. H. Hatch, and Hon. T. Wyer; *Treasurer*—W. Hatch; *Secretary*—D. D. Morrison.

COMMITTEE—Joseph Walton, T. Sime, C. R. Hatheway, T. Turner, D. Mowat, H. O'Neil, J. Loehary, S. Getty, and John M'Curdy.

The following is the Report.

REPORT.

The revolution of another year, calls upon the President and Directors, to lay before the Society a report of their proceedings for the past year; and in doing so, they would, in an especial manner, deeply express their gratitude to an overruling Providence, for the bountiful return which has rewarded the labours of the husbandman, and the propitious weather which enabled our farmers to procure the fruits of the earth in due season, and in fine condition. The unusually dry and early spring, afforded time for getting every description of seed into the ground much earlier than usual; and, although the summer may be said to have been cold, yet it is satisfactory to record that crops of every description, except where mildew interfered with them, yielded a good return, and may be said to be over an average, and the wheat, in many instances, very superior in quality. The turnip crop, however, did not generally answer expectation, although good in several instances; one of which was on the farm of Colonel Mowat, in the vicinity of this town, who cultivated about two acres in one field—manured with *muscle mud*, fresh from the beach. The yield was about eight hundred bushels to the acre, and proves the great value of that kind of manure. The greater part of the turnips were ruta bagas, with a small portion each of yellow Aberdeen and the hybrid variety, the latter of which he speaks of in high terms of commendation for stock.

The grass seeds ordered by the Board, arrived in good season, good order, and of fine quality; and, together with those that remained over from last year, were all disposed of, so that a full supply will be required for the approaching season.

The sheep ordered to be imported, arrived safe, and although costing a large sum of money, it is to be hoped, that eventually the country will be compensated for the outlay. They have been disposed of for the present season within this Parish, and so as to secure the increase of the ewes, (if any) to the Society. The great expence attending the importation of stock of every description, renders it desirable, that great pains should be taken to improve the breeds already in our possession, especially such as are considered from actual experiment, to be the best adapted—all things considered, for the wants of the country.

The plough metals ordered, arrived likewise, in due season, and the increasing demand for them, prove their great value to the country; every description of ploughs has nearly given place to those now manufactured in the County, after the "*Wilkie*" pattern, and it is presumed that no other description of ploughs answer for all the purposes of our farmers so well, or can be procured by them with the same facility.

The Cattle Show and Fair was held according to previous arrangement, at the farm of Mr. John M'Dowal, to whom the thanks of the Society are due for the trouble and inconvenience to which he subjected himself, as well as for his kindness and hospitality. It is most gratifying to observe, that the progressive improvement, in almost every department of our agricultural production, has realized the most sanguine expectations of those who

have for years exerted themselves to urge its claims, to foster its interests, and to promote by every means in their power, a spirit of practical inquiry, having a tendency to develop the capacity of our soil and climate, and to establish the important truth, that with a proper application of our resources, the County is fully capable of sustaining a large population. The horses exhibited, fall short of keeping pace with the improvement conspicuous in other kinds of stock, and it may be deemed worthy of consideration, whether some effort should not be made by the Society to encourage the introduction into this County of such a breed of this most useful animal, as would be thought best adapted to the general purposes of the country.—The neat cattle exhibited, were very creditable, and several animals shewed superior points; but we cannot overlook the deficiency in the number and quality of "Steers" offered for competition, and trust that in future we shall be able to report more favourably of this description of stock.

The sheep exhibited, were numerous and highly satisfactory, those taking the premiums being a cross from the sheep imported by Colonel Marks, of Saint Stephen, some time since. The public spirit of that gentleman has contributed in various ways to the improvement of farm stock in this County, and fully entitled him to the gratitude of the farming community.

The swine, likewise, shewed marked improvement, which proves that the money expended by the Society for that purpose, has been well applied.

The produce of the dairy offered for competition, was such as to prove the adaptation of this County for dairy purposes, and to warrant the conclusion, that with proper attention to the selection of stock, and to the manufacture of butter and cheese, dairies may become a source of wealth to our farmers.

The manufacture of woollen cloth is another branch of domestic industry that is deserving of every encouragement, and from the superior samples entered for competition at the late Fair, and the interest excited on that occasion, we have every reason to be satisfied that a right feeling exists amongst our farmers and their families, which is appreciated by all classes in the community.

The stirring spirit of emulation which has always been excited where well contested Cattle Shows and Fairs have been held and properly conducted, seems to have been attended with such beneficial results as to leave it no longer questionable, whether such exhibitions should be encouraged, it having become a settled principle among the best friends of Agriculture in all countries, to lend their aid, to countenance with their presence, and to promote with all their influence, a spirited competition in the reproduction of superior animals, and superior produce of every description, and rewarding the most successful efforts, by giving premiums from time to time, in proportion to their means. How far the Society will be able to foster a spirit of improvement by granting premiums for competition, and carry on all the other arrangements deemed necessary, must depend in some degree on the support which may be realized from the agricultural part of the community; and the disposition which has been exhibited during the past season, leads us to hope that they will hereafter better appreciate the exertions which the Society are making, in order to confer a lasting benefit upon the country, and to compensate, so as to strengthen their hands, and promote endeavors so worthy of their support.

The large sums paid annually for grass and clover seeds by our farmers, renders it worthy of con-

sideration, whether some encouragement should not be extended to persons settling on new lands, and having large quantities of hay at a distance from a market—could they be induced to turn their attention to the raising of those seeds? The demand for eastern or northern seed raised on new lands, has increased to such an extent, as to ensure a ready demand and a fair price for any quantity. The farmers in the interior of the State of Maine have, of late years, paid much attention to the growing of herds grass and clover seeds, and now export large quantities.

These remarks have been suggested in consequence of a sample of herds grass seed exhibited by Mr. John M'Curdy, of this Parish, at the Society's Fair, which was equal, if not superior, to any we have seen imported, but to which the Committee could not give a premium, there being none appropriated for that purpose.

William Porter, Esq., of Saint Stephen, having liberally presented several bags of African guano to the Society in June last, with a view of affording some of our farmers an opportunity of testing its proprieties in this County, the same was distributed in small lots to farmers and gardeners, with the understanding that they would report the result of their experiments to your Secretary; but, as yet, he has received no notice from any person respecting it.

The President and Directors, fully assured of the paramount importance of agriculture, cannot conclude their twenty fifth Report, without urging one and all to bear in mind that our united exertions are necessary to sustain and promote the best interests of our common country; and that the object placed before us, is of human attachment, and for our own welfare and prosperity, and therefore calls for our zealous and united co-operation.

D. D. MORRISON *Secretary.*

On motion of the Hon. H. Hatch—Resolved, that the thanks of the Society be tendered to Col. Marks for his laudible exertions in improving the breed of stock of various kinds in the County.

On motion of Col. Wyer—Resolved, that the thanks of the Society be given to William Porter, Esq., for his valuable present of guano, and that the Secretary convey the same in writing.

On motion of Mr. D. D. Morrison, the thanks of the Society was voted to Mr. John M'Dowal for his kindness and attention in furnishing accommodation for the Cattle Show and Fair in October last.

At six o'clock a large company sat down to a dinner prepared by Mr. Copeland. Several loyal and patriotic toasts were drank, with every demonstration of good feeling and respect, and several songs were sung. The company separated at an early hour, much pleased with their evening's entertainment.

REARING CATTLE, WITH A VIEW TO EARLY MATURITY.

The production of beef at the cheapest rate being the object in view, the first requisite is a stock of cows possessing qualities suitable for this purpose. Accordingly they should be good milkers, able to keep at the rate of two and a half to three calves each—of a kind known to have a tendency to fatten readily, and to come early to maturity, and of a structure likely to produce a vigorous well grown steer. In other words, they must be good short-horns; only having more regard to their milking properties than is usually done by the breeders of bulls. And here it would be well to

notice, that it is in general highly expedient for the beef grower—the farmer who depends largely on his regular cast of fat cattle—to attempt breeding his own bull. It is only a few individuals in any district who have the taste and skill requisite for this difficult department of the business, not to mention the large capital which must necessarily be invested in it, the precariousness of the return, the great liability to casualties of such high bred animals, and the additional expense of their housing and maintenance. On Tweed side, the breeding of bulls is confined to a very limited number of persons, chiefly Northumbrians, who, by devoting their whole attention to this department, are able, from year to year, to furnish a class of bulls which are steadily improving the general breed of the district. The contrary practice is at this moment compromising the character of this valuable breed of cattle in several districts of Scotland into which they have been more recently introduced. Made wiser on this point by experience, the farmer of the Border purchases from some breeder of established reputation a good yearly bull, which he uses for two or three seasons, and then replaces by another in like manner. This bull serves his own cows and those of his hinds, and some of the neighbouring villagers; and thus, though his own stud be limited to six or eight cows, he can select from the progeny of his own bull as many calves as he requires to make up his lot, and has them more uniform in colour and quality than could otherwise be the case. As the male parent, among sheep and cattle, is known to exert by far the greatest influence in giving character to the progeny, and increasingly so in proportion to the purity of his breeding, it is evidently much for the advantage of the beef grower to spare no reasonable trouble and expense in obtaining a bull of thorough purity, and then to select his calves with the most scrupulous attention. From overlooking all this, how often may lots of cattle be seen, on the best of land, too, which can only be fattened at an enormous expense of food and time, and, after all, are so coarse in quality as to realise an inferior price per stone. Occasionally a few beasts of the right sort will be seen in such lots, which, by going a head of their fellows, to the extent of £4 or £5 a-piece of actual market value, show what might have been done by greater skill or attention on the part of the owner. It is very desirable to have all the cows to calve betwixt 1st February and 1st April. If earlier, they will get almost dry ere the grass comes, and calves later than this will scarcely be fit for sale with the rest of the lot. When a calf is dropt, it is immediately removed from its dam, rubbed dry with a coarse cloth or wisp of straw, (this being what the cow would do for it with her tongue, if allowed,) and then placed in a crib in the calf-house among dry straw, when it receives a portion of its own mother's milk, which, being of a purgative quality, is just what is needed by the young animal. For a fortnight, new milk is the only food suitable for it, and of this it should receive a liberal allowance thrice a day but means should now be used to train it to eat linseed cake and sliced Swedish turnip; and the readiest way of doing so is to put a bit of cake into its mouth immediately after getting its milk, as it will then suck greedily at anything it can get hold of. By repeating this a few times, and placing a few pieces in its trough, it will usually take to this food freely, and, whenever this is the case, it should have as much as it can eat, that its allowance of milk may be diminished, to meet the necessities of younger calves which are coming in succession. This is of the greater im-

portance that it is always most desirable to avoid mixing anything with their milk by way of helping the quantity. When a substitute must be resorted to, oatmeal porridge mixed with the new milk is perhaps the best. Sago has of late years been much used for this purpose, but an eminent English veterinary surgeon has recently expressed a very decided opinion that its use impairs the digestive powers of the animal, and predisposes to disease. The sour smell invariably found in a calf house, where porridge or jelly of any kind is mixed with the milk, is proof sufficient that indigestion is the consequence. An egg put into each calf's allowance, and mixed with the milk by stirring with the hand, is a good help, and never does harm; but, with this exception, it is best to give the milk warm and unadulterated, however small the quantity, and along with this, dry farinaceous food, turnips and hay, *cal tibitum*. If more liquid is needed, a pail with water may be put within their reach, as this does not produce the bad effects of mixed milk. Indeed, in this, it is best to keep as closely as possible to the natural arrangement according to which the calf takes its suck—at first frequently, and then at longer intervals as it becomes able to eat of the same food as its dam. The diet of the cows at this season is a matter of some consequence. Swedish turnips yield the richest milk, but it is too scanty, and calves fed on it are liable to inflammatory attacks. Globe turnips should, therefore, form their principal food during the spring months. Care must also be taken that they do not get too low in condition in the autumn and winter, and for this end it is well to put them dry at least three months before calving. Some may think this long; but, on a breeding farm milk is of little value at this season. The cows, when dry, are kept at less expence, and, by this period of rest, their constitution is invigorated, greater justice done to the fœtus, now rapidly advancing to maturity, and so much more milk obtained after calving, when it is really valuable. When the calves are from four to six weeks old, they are removed from their separate cribs to a house where several can be accommodated together, and have room to frisk about. So soon as the feeding-yards are cleared of the fat cattle, the calves are put into the most sheltered one, where they have still more room, and are gradually prepared for being turned to grass; and, when this is done, they are still brought in at night for some time. At six weeks old, the mid-day allowance of milk is discontinued, and at about fourteen weeks they are weaned altogether. When this is done, their allowance of linseed cake is increased; and, as they have been trained to its use, they readily eat enough to improve in condition at this crisis, instead of having their growth checked, and acquiring the large belly and unthrifty appearance which used to be considered an unavoidable consequence of weaning. The cake is continued until they have so evidently taken with the grass as to be able to dispense with it. They are not allowed to lie out very late in autumn, but, as the nights begin to lengthen and get chilly, are brought in during the night, and receive a foddering of tares or clover foggage. When put on turnips, the daily allowance of cake (say 1 lb. each) is resumed, and continued steadily through the winter and spring, until they are again turned to grass. This not merely promotes their growth and feeding, but (so far as the experience of five or six years can determine the point) seems a specific against black-leg, which was often so fatal as altogether to deter many farmers from breeding. It may be well to

state here distinctly the particular purpose for which cake is given at the different stages of their growth. At first, the object is to accustom them to a wholesome and nutritious diet, which will supplement the milk obtained from any given number of cows, so as to admit of a greater number of calves being reared, and, at the same time, have greater justice done than could otherwise be practicable. At weaning-time, again, it is given to help the young animal over the transition from milk to grass alone, without check to growth or loss of condition. During the following winter, however, the special object of its use is to prevent black-leg, as, but for this, turnips *ad libitum* would be sufficient. When put to grass as year-olds, they decidedly thrive better on sown grass of the first year than an old pasture, differing in this respect from cattle whose growth is matured. They are laid on turnips again as early in the autumn as these are ready; and it is a good practice to sow a few acres of globes to be ready for this express purpose. It does well to give the turnips upon the grass for ten or fourteen days before putting them finally into the feeding yards; and then, if they can be kept dry and warm, and receive daily as many good turnips as they can possibly eat (globe till Christmas and Swedish afterwards,) they will grow at a rate that will afford their owner daily pleasure in watching their progress, and reach a weight by the 1st of May which, if markets are favourable, will reward him well for all his pains. The leading features of this system are, good keeping and progressive improvement; in other words, to get them fat as soon after birth as possible, and keep them so till they reach maturity. The details given above are a description of the expedients generally adopted by the breeders of this district for securing these objects.—*Mr. Wilson, Transactions of the Highland Society.*

MANAGEMENT OF THE HORSE.

This noble animal is an indispensable servant and companion of the farmer. He ploughs, he harrows, he carts over the farm. He goes to market, to mill, and to meeting; he also accompanies his master to election frolics, political gatherings, and winter sleigh rides, and his company is as much sought after, at such times, as the orator's or the fiddler's.

The horse is more often abused than any of our domestic brutes. He is too generous to spare his limbs or his wind when we are in haste, and his generous ambition too often causes his ruin.

On the farm, however, the horse is not so generally over driven as on the highway, when we attempt to outstrip the wind, and leave steam engines behind. It is fast driving and subsequent neglect that bring on sprained joints, broken lungs and premature old age.

Horses that are worked on a farm and are well attended to, will often be good in harness at 35 years of age; while those that travel in stages are not expected to last longer, on an average than six or seven years. They are then turned off to the farmer to serve in better business, or are sold to the tanner for what the skin is worth.

We have thrown out a few hints in a former number, on the subject of horse breaking. We hold that any horse, well broken, may be made to draw as surely as an ox. The horse requires different treatment because he knows more. And this circumstance makes it absolutely necessary that his driver should be wiser than the driver of an ox. We cannot vouch for the saying of the Irish,

"that a horse knows as much as man according to his bigness." Still we conjecture that some horses have more understanding than some men have.

How to treat Horses on a journey.

Much judgement is requisite to keep a horse in good trim on a long journey, and when your jaunt is but twenty miles it is worth your while to look well to your horse. The first step is to fit the horse for the journey. If he has been kept out at pasture he should be taken up and put to hay and grain for a number of days before starting. Hay and grain must be his food while he labours hard, but when you first commence giving grain you must limit the quantity. When he has become used to eating grain you can make that his principal food on a journey; and this you will find cheaper than any other food.

We have known farmers, of very good sense in other matters, act most absurdly in the management of a horse. They will give "dobbin" a mess of grain just before starting in the morning though he has not been used to eating it before. Just as if a half a peck of oats or corn, crammed down hastily, would aid him in his journey. Dobbin would perform much better through the day without a mouthful of grain. Even one that has been long used to it, should never have his stomach stuffed full of it just before starting.

Your most hearty food should all be given at night, unless you have ostlers on whom you can depend, to feed them two or three hours before morning; in such case, a part of your grain may be given at night, soon after you stop, and the remainder two hours at least before you renew your journey.

We are aware that some over-wise teamster will argue, that if you give your horse his grain at night, he will eat no hay of consequence, and that you will throw away the money you pay for hay in feeding. They, therefore, endeavour to stuff in as much hay as possible at first, and give the more palatable food for a dessert or stuffer. This is most unwise on two accounts—your horse needs his most hearty food soon after his day's work is over,—and very hearty food hurts him when fed just before his work commences.

If the grain is given at night your horse soon eats enough to cloy him sufficiently to induce sleep and rest; but if he must have poor picking for some hours after being put up, his time of sleep and rest is delayed; it may require the whole night, on fodder that he must pick over, to satisfy the craving of his appetite.

If your are used to travelling you know you cannot always be sure of the best of hay for your horse. In New York the Dutch tavern keeper advises you to feed with his latest cut hay. He argues that more heart is found in this than in what is cut while in full blossom. Well, give a knowing horse such hay, and he will stare you in the face and whinow for grain.

We have travelled much, and on long journeys—we have learned from long experience that grain must be our chief reliance for horse food—that the horse wants something substantial soon after being put up—that his grain then benefits him much more than at any other time, because he is then most in want of it, and because it then has time enough to digest and to go into the system.

The best mode is to rely chiefly on grain. One peck of good corn is equal to two pecks of oats, but as your hay may not be good, prefer turning down half a bushel of oats, before your horse soon after putting him up at night. He must have

something to fill his stomach, and as the hay may be worthless, your oats will answer for hay and grain too. Your horse will now soon eat as much as he wants—he will soon lie down to rest and to sleep; and before morning his grain will all be converted into good chyle and will nourish his blood.

The next morning your horse will be ready to start before you wake up. Instead of waiting for him to eat a new mess of grain, and then to let it digest, you find him plump and good natured and asking for nothing but your company.

It is well known that horses are often ruined by eating grain at improper times. Farmers have fancied that eating it while the animal is hot with exercise is the principle cause of injury from grain; but it is not so. We have known many horses to die suddenly on eating grain, but never on account of eating it soon after stopping. It is rapid driving—violent exercise—soon after eating the most hearty kinds of food, that is destructive to travelling horses. There is no more danger in giving a horse the most hearty food in ten minutes after he stops, than in giving a man his most hearty meal as soon as he quits mowing in a hot day.

Let any one consult his own feelings and he may rid himself of the delusion that eating after violent exercise injures him more than at any other times. It is violent exercise immediately after eating, before the food has had time to change, that deranges the whole system and causes death. If any traveller objects to the cost of feeding on grain while on a journey, we answer that you pay no more for half a bushel of oats than for half a peck—for if you order half a bushel you buy at wholesale, and your landlord will charge you nothing for the hay. Suppose you pay double the wholesale price for oats, your horse keeping is then but fifty cents, in any country town in New England. And if you call for a half peck of oats with hay, you will find your bill not far short of that sum.

Stage Horses.

These may be kept in a different manner from those that are on long journeys. They are always kept at home, and their tender have leisure enough to prepare their food for them.

Grain is the principal food of stage horses, but it is found economical to mix up cheap substances with it to distend the stomach, and to keep the horse in health. Cut straw, or cheap hay, mixed with Indian meal, is found to be excellent food for hard laboring horses; and as drivers have leisure enough to prepare it, this has now become the common food of such teams.

Thirty years ago it was the practice of drivers to give their horses meal and water on stopping for a few minutes to take breath. In hot weather it was no uncommon case to see a horse drop suddenly dead in the street. On opening the stomach raw meal was found in cakes. The violent exercise to which these horses are subject, gives no time for the rich food to change. The horse cannot vomit as a man and some other animals can, and he dies with a load on his stomach which he has no means to remove.

Show us one case where a horse has been injured by eating while warm, and we will show you a hundred where he has died in consequence of travelling immediately after eating grain. You have all eat hearty meals immediately after labor, and while in a state of perspiration, without injury, and you have all felt pain, on using violent exercise immediately after eating. Judge of the horse as of yourself, and you will judge rightly.

(From the Boston Cultivator of January 18, 1845.)

SECOND AGRICULTURAL MEETING AT THE STATE HOUSE.

Subject—

THE POTATO DISEASE.

Hon. Levi Lincoln in the chair, Mr. Teschemacher, of Boston, opened the discussion. He first read from a pamphlet published in Germany a few years ago, on this disease, which prevailed there to an alarming extent. There were many conjectures as to the cause of the disease, such as the manure, soil, &c. Where the seed was cut the injury was greater, an affection of the tuber commencing at the cut part.

He had made numerous examinations on diseased potatoes. The smell was like diseased fungus, and he was inclined to the opinion that this was the cause of the disease. Fungi are very fine particles of vegetable matter that float about in the atmosphere, imperceptible to the naked eye. He had examined many potatoes with a view to learn the cause of this disease. He inspected some potatoes in which the disease had just commenced. On cutting them open length-wise, he discovered small white worms, about one-fourth of an inch from the skin. At that stage the disease had not affected the starch. From the depositions of these worms the cells became thickened, which gave to the potato its peculiar appearance in this disease. He tried to propagate the disorder by placing diseased halves of potatoes in contact with other halves that were sound. In five or six days no effect was produced, but in two weeks the sound parts had become contaminated; and in six weeks they had decayed.

Mr. Buckminster, of the *Ploughman*, remarked we had in September about two weeks hotter weather than had been before for 50 years, and this might, in part, be the cause of the disease. As it were more common when manure was in the hill, it shows the heat is a cause, as heat is produced by the fermentation of the manure.

Mr. A. W. Dodge, of Hamilton, said that he had one kind of potato, the Blue, four-fifths of which were diseased. He had raised these on his place for several years, and they had not been affected before. He furnished some of his neighbors with the same seed, and their crops were not injured.

He planted Chenangoes, and they were cut, but not affected with this disease. The disease could not be owing to heat, as Long Reds were never better. He was feeding swine with his diseased potatoes, and they had not been injured. It was not owing to the seed running out, for the Long Reds had been long among us. As salt prevents smut in wheat, and as potatoes have not been so much affected on the sea-board, where sea-weed and salt are used, salt may be a preventive.

Mr. Abel Gleason, of Wayland, planted 3 or 4 acres of potatoes on greensward. Some were rotten. He gave one or two bushels to nine hogs and they ate them. Next morning one could not rise. He gave her half a pound of salts in new milk, and next morning she was well. He manured in the hill. A neighbour planted potatoes adjoining him, only a fence between, and manured in the hill, and he had not one rotten one. The Veto potatoes rotted most. He thinks the kind of manure had some effect—where he used peat manure the disease was least.

Mr. Peter Fay, of Southboro, observed that the first he heard of the disease was in the first week of September. His vines were then green, but soon they were diseased, and in 48 hours the tubers

were affected also. The disease commenced at the top, and proceeded downwards. Before the vines were affected there was no disease in the potato. The malady was worst on old ground, and on low land. He had three varieties. The Blues were most affected, the Vetoes next, and the Long Reds were scarcely at all injured. He fed to stock those that were most affected, so did others in the town, and no damage was done.

Mr. Page, of New Bedford, inquired of Mr. Fay whether in any case the potatoes were affected unless the tops were diseased, to which Mr. F. replied in the negative.

A gentlemen from Chester said that the vines seemed struck with a sudden blast. He supposed that it was occasioned by atmospheric influence.

Mr. Prince Bracket, of Sturbridge inquired whether potatoes planted early or late were most affected. Some of his neighbours planted early on dry soil and their crops were good. There was no blast on the vines. This disease producing a sudden effect. The leaves on all wilted in a single day, and soon the potatoes were rotten. A man from Connecticut said that the early planted were not so much affected.

Hon. Mr. Allen, from Plymouth Co., said that he would give the experience of a man in his county. He planted a field of potatoes, a part descending to the south, and a part to the north; both parts treated alike, and that part having the southern exposure, was much affected, and the other part was not injured. Great heat may have some effect, as the most injury was done where the heat was greatest. In some parts the Long Reds were not affected, but in Plymouth Co., some say that this variety was most affected; but the Abington Blues seem to have sustained the most injury. He tho't that the best seed was from late planted, and farmers should plant some late for that purpose.

Friend J. M. Earle, of Worcester, remarked that he travelled considerably last fall, and he made many enquiries as to this disease, and examined diseased potatoes in many places, and all seemed to argue that those planted early generally escaped. Chenagoes were much affected. He did not think that great heat occasioned the disease, for we often have greater heat in July and August, to which early potatoes are exposed, than at a later period in the season; of course early planted are exposed to the most heat. The disease was considerably developed before the warm weather in September. In some cases part of a field of potatoes was killed while the rest escaped.

Hon. Mr. Dillingham, of the Senate, said he tho't that salt would have no good effect. He planted an acre, using sea weed, kelp, and barn manure. The potatoes were all dug at the same time, and appeared good. They were put in the cellar. In three or four weeks, on boiling them, it was found that the Long Reds were much affected, and turned black under the skin. They were all overhauled, and the Long Reds were much diseased, and the Rohans about the same, but the Chenagoes were not injured. The principal part of the sea weed and kelp were on the part planted with Long Reds.

Mr. Cole, of the Cultivator, stated that after all that had been said we had not discovered the cause of this disease. What appeared to be a cause in one case had no effect in another. He had for some time thought that it was occasioned by atmospheric influence, which could not be explained, as he stated at the previous meeting, in the same manner as diseases which affect mankind and animals. Some persons is pre-disposed to disease, and are affected, while others escape. So some varieties

of potatoes are hardy and escape this disease, while others are tender and pre-disposed to it. This is not owing to old varieties; the Dean potato, called also the Veto and Abington Blues, is more affected, generally, than the Long Reds, which have for a long time been among us, while the Veto has been more recently from the seed. The reason that early planted potatoes were less affected, is because this blight prevailed late in the season. Many things assigned as causes are only predisposing causes. He had found from experience that potatoes planted late were best for seed, and grew the most vigorously.

It is important to find preventives of the disease, though probably no complete remedy will be found. Hardy varieties should be preferred; seed from late planting, if not affected will be best. Plaster may be useful. Mr. Everitt stated the other evening that the injury was least when plaster was used. A Mr. Netterville of New Jersey found that his potatoes were affected in 1843 after put into the cellar and so he picked out those that were affected and put half a peck of slacked lime to each layer of the others and they kept well. On planting last spring he put a table spoonful of lime in each hill, and after they were up, and before hoeing, he applied to each hill about a gill of a mixture of lime 2 bushels, plaster 3, and ashes 8. He had not one rotten potatoe in the fall, while those of his neighbours were much diseased. Although lime may not be a complete remedy, it may have a favourable effect.

Mr. Thomas Kempton, of New Bedford, observed that seeding potatoes had been equally affected with others, that the disease commenced at the stalk and progressed up, late planted had been most injured.

Hon. Mr. Foote, of Berkshire Co., said that Wm. Patridge of New York City, well known as a good practical chemist, in preparing a piece of sandy land on Long Island for potatoes, mixed with the surface soil a large portion of pulverised charcoal, and he had a good crop, and none were diseased.

The President remarked, that the whole discussion reminded him of the remark of an old physician who was on consultation in a case of spotted fever, and having examined into the case, and his opinion being required, said "It is death;" so from all that has been said on this subject, it only appears that it is death to the potato.

REMARKS.—Although the discussion has not led to a discovery of any definite cause of the potato malady, yet, it has shown that many supposed causes, were not true, and it may prevent many from being led astray by false suppositions. It shows conclusively, that in most cases some varieties are more hardy or less predisposed to the disease than others, and from what has been said, and from what has been done many persons will be aided and stimulated in further investigations, and farmers will have more light as to using preventives of the disease, or something that will in some measure have a conservative effect. Hoping that good would grow out of the discussion, in regard to the nature and operation of the evil, and the mode of applying remedies, we have reported it at length, for the subject is of great public importance, and should deeply interest every individual who raises or eats a potato. The true cause is doubtless atmospherical influence.

IDLENESS.—There are but few who know how to be idle and innocent.—By doing nothing, we learn to do ill.

HOE OUT YOUR ROW.

A FARMER'S SONG.

You've a hard row to hoe, noble knight of the sod,
But to toil in the earth is the mandate of God;
And if by the sweat of your brow you must win
Your bread, it is time, it is time to begin;

Then go to, go,

If your bread by the sweat of your brow you must win,
Hoe out your row.

In the rough row before you, though rugged the soil,
'Twill repay in due season the culturer's toil;
Though wild grass and weeds so profusely abound,
Perseverance and patience will mellow the ground;

Apply the hoe,

Perseverance and patience will mellow the ground,
Hoe out your row.

Though the young tender plant is now feeble and pale,
Let not faith in the promise of harvest time fail;
Nor deem you are tired, as a motive to stop,
If you would be sure of a plentiful crop;

Your progress, though slow,

If you would be sure of a plentiful crop,
Hoe out your row.

Let it never be said that you lagged on the way,
Or that idly you turned from your labor to play;
Nor heed wind nor weather, nor yet burning sun,
But go ahead manfully till you have done;

Quick wield the hoe,

And go ahead manfully till you have done—
Hoe out your row.

Soon, soon shall the tender plant broadly expand,
And loftily rise 'neath a cherishing hand;
Already, methinks, greener, fairer it looks—
Then carefully nurse its young delicate shoots,

And bid it grow;

Then carefully nurse its young delicate shoots—
Hoe out your row.

I admit that your row is peculiarly hard,
But bountiful Heaven insures your reward;
I own it is long—but believe me, my friend,
If you hold on your way, you will come to the end;

With certainty know,

If you hold on your way, you will come to the end—
Hoe out your row.

When done, you may rest; while with pride and with joy,
You behold the result of your useful employ;
And reflect that even toil hath a blessing and charm,
It nerves the free spirit—adds strength to the arm;

Then speed the hoe—

With invincible spirit and vigorous arm,
Hoe out your row.

Bold Yeoman, proceed! and when finished your task,
You then may presume Heaven's blessing to ask;
And the Author of Nature will graciously smile
On firm perseverance and virtuous toil;

Then go, man, go,

With firm perseverance and virtuous toil,
Hoe out your row.

RECIPES.

To destroy Rats.—The following recipe for the destruction of rats, has been communicated by Dr. Ure, to the council of the English Agricultural Society, and is highly recommended as the best known means of getting rid of those most obnoxious and destructive vermin. It has been tried by several intelligent persons, and found perfectly effectual.

“ Melt hog's lard in a bottle, plunged in water heated to about 150° Fahrenheit; introduce into it half an ounce of phosphorus for every pound of lard, then add a pint of proof spirit or whiskey; cork the bottle firmly after its contents have been heated to 150°, taking it at the same time out of the water-bath, and agitate smartly till the phosphorus becomes uniformly diffused, forming a milky looking liquid. This mixture being cooled, with occasional agitation, at first, will afford a white compound of phosphorus and lard, from which the spirit spontaneously separates, and may be poured off to be used again, for none of it enters into the combination, but it merely serves to comminute the phosphorus, and to diffuse it in very fine particles through the lard. This fatty compound, on being warmed very gently, may be poured out into a mixture of wheat flour and sugar incorporated therewith, and then flavored with oil of rhodium, or not, at pleasure. The flavor may be varied with oil of aniseed, &c. This dough being made into pellets, is to be laid in rat holes. By its luminousness in the dark, it attracts their notice, and being agreeable to their palates and noses, it is readily eaten, and proves certainly fatal. They soon are seen issuing from their lurking places to seek for water to quench their burning thirst and bowels; and they commonly die near the water. They continue to eat it as long as it is offered to them, without being deterred by the fate of their fellows, as is known to be the case with arsenical doses. It may be an easy guide for those who are desirous of following Dr. Ure's prescription, and may not have a thermometer at hand, to know that a temperature of 150° of Fahrenheit is equivalent to a degree of heat, midway between that at which white of eggs coagulates, and white wax melts.”

Simple Cure for the Croup.—The Journal of Health, says: “ When a child is taken with croup, instantly apply cold water (ice water, if possible,) suddenly and freely to the neck and chest with a sponge. The breathing will almost instantly be relieved. So soon as possible, let the sufferer drink as much as it can; then wipe it dry, cover it up warm, and soon a quiet slumber will relieve the parent's anxiety, and lead the heart in thankfulness to the Power which has given to the pure gushing fountain such medicinal qualities.”

Buckwheat Cakes.—To three pints of buckwheat flour, mixed into a batter, add one teaspoonful of carbonate of soda, dissolved in water, and one teaspoonful of tartaric acid, dissolved in like manner; first apply the carbonate, stir the batter well, and then put in the acid; thus the use of yeast is entirely superseded, and light cakes are insured. One great advantage is, that the latter is ready for baking as soon as made.

Another, considered superior to anything of the kind.—Dissolve a teaspoonful of super-carbonate of soda, in a sufficient quantity of sweet unskimmed milk; three teaspoonfuls of cream of tartar, with a heaping quart of flour, mixed dry and well rubbed together; then mix up the whole and bake immediately. If milk is not at hand, water will answer, slightly sweetened with sugar, and a little shortening added to it. The flour and all other materials, must be of a first-rate quality.

Remedy for Worms and Insects in the Stomach of Calves.—Take 1 pint of spirits of turpentine, 1 pint train oil, 2 oz. spirits of vitriol, 2 oz. asafoetida, 2 oz. harts-horn. Mix the whole together in a bottle, and shake it well before it is used. Pour a table-spoonful of the mixture down each nostril of every calf, for three successive mornings; the calves must be kept fasting the night previous to giving the dose. Should the first trial not succeed, repeat the dose in the course of a week.

ORGANIC MANURES.

[The subjoined paper on manure is copied from the *Northern Whig*, chiefly because it supplies plain and intelligible information on a subject of great practical importance.]

Farmyard manure is composed of ingredients from the mineral as well as from the animal and vegetable kingdoms. In the vicinity of large towns the dunghill is usually made up from the stable, the cow-house, and the street; and as there is a very material difference in manure from these different sources, it seems better to consider them separately—by which method it will be easy to determine whether, in any particular case, they had better be used singly or conjoined. For ordinary purposes, there is no doubt about the propriety of mingling intimately all these kinds, though, at the same time, it is well to be aware of the peculiar advantages of each, that they may be used separately, if desirable. Besides, near large towns, where a choice of manure may be had, the farmer should purchase that kind which best suits his soil, and the crop to which it is intended to be applied.

Stable Manure, moderately rotted, contains a large quantity of organic matter, soluble in water, and, consequently, fit to yield immediate nutriment to plants. It also contains a large proportion of organic matter, of ready solubility, which would therefore, in a short time, be capable of furnishing nutriment. It contains, besides, in small quantity salts of ammonia, potash, soda, and lime, all valuable fertilizers. The organic matter being regularly dispersed through the mass, renders it uniform in its effects. It is also easily incorporated with the soil. These qualities render stable manure very valuable. As it contains organic matter already soluble, it does not require much fermentation; indeed, that process, if allowed to proceed too far, renders it nearly inert, in consequence of the conversion into gas, and evaporation, of some of its most valuable ingredients. It continues to afford food to plants gradually, for a considerable time, in consequence of its containing a large quantity of organic matter that readily becomes soluble. From its great tendency to decomposition, it is much better suited to heavy than to light soils; for in consequence of the easy access of air and moisture to lands of the latter description, manures ferment much more rapidly, and are more quickly exhausted, in them, than in what are called strong or clay soils.

Dairy Manure contains less soluble matter than that from the stable. It putrifies much less quickly; for, though it contains rather more organic matter, it has not the same tendency to become soluble. It was, on this account, said to be colder than stable dung, by the old agricultural writers, who, knowing little of chemistry, looked to the effects produced, without knowing anything of the causes. The salts in this are pretty nearly the same as in stable dung; at least in effect. It also is easily incorporated with the soil. From the condition of its organic matter, it will not be so forcing at first, but will be more permanent in its effects; for, in consequence of its slower solution, it will continue to supply nutritious matter for a long time. For the same reason, it is less likely to be injured by excessive fermentation. This, indeed, ought not to be allowed to occur in any case; for, it should always be remembered that the chemical changes in manures, that render most service to plants, take place during the earlier periods of putrefaction. Besides, most green crops, especially turnips, if forced forward vigorously in the early period of

their growth, will take pretty good care of themselves afterwards.

Street Manure is very variable in its composition. It usually contains a large quantity of silicious matter; coal cinders and ashes form another large portion, with lime from walls, &c. It owes its chief fertilizing powers, however, to the night-soil it contains, from which is produced a large supply of nitrogen. The proportion of organic matter in it is very variable. Sulphur and peroxide of iron are generally found, in it, both of which, especially, the latter, are dangerous ingredients, except there be a large portion of lime in the manure or in the soil. The salts and organic matter are not regularly mixed in the mass; in consequence of which it will be partial in its effects. From these observations, we may infer, that dairy manure is best for light, and stable manure for cold heavy lands; and that street manure is commonly much inferior to either, especially for potatoes; though, from the night-soil it contains, it might produce good turnips. Stable manure is good for turnips, but that from the cow-house is the best of all for potatoes, which, containing 32 per cent. of nitrogen in the leaves, and 37 per cent. in the tubers, require a large supply of nourishment, especially at the advanced period of their growth, when the tubers are formed. The turnip contains only 17 per cent. of nitrogen. As however, these and other manures are commonly combined in the same heap by the farmer, it is of importance that they be carefully mixed, else the crop will be irregular. Sir H. Davy has shown, by direct experiment, the great loss sustained by manures undergoing putrefaction. Mr. Blackie, in his valuable essay on farm yard manure, says, that stable dung often loses from 50 to 75 per cent. of its value by excessive fermentation. The loss of ammonia, which, from its great volatility, escapes first, may be easily demonstrated, by holding a feather, previously dipped in vinegar or muriatic acid (spirits of salt) over the fermenting manure. The ammonia combines with the acid, forming a white cloud. This ammonia, which is the chief source of nitrogen, is brought back to the earth by rain, though seldom to the place it left, so that the careful man keeps all his own, and at the same time gets a share of what belonged to his indolent neighbours. To prevent this waste, the manure heap should be consolidated, by drawing the carts over it, or by allowing cattle to trample it. What is made in spring might be thrown loosely together, that it might be ready in shorter time; but manures for potatoes are generally quite too much decomposed. Many substances have been recommended, to be added to the dunghill, for the purpose of fixing the ammonia. Among the best is sulphate of lime (gypsum), in fine powder, by which means we obtain carbonate of lime (chalk,) and sulphate of ammonia, a valuable manure, and much less volatile than the carbonate of ammonia. Besides, should any gypsum remain undecomposed, it also has its uses. Common salt (muriate of soda) is recommended by some. By using it, we get muriate of ammonia (salamoniac), an excellent fertilizer and carbonate of soda, also very valuable. Sulphuric acid, diluted with nine or ten times its weight of water, has been brought forward, under high auspices, as a fixer of ammonia, and indeed it is highly probable that it may succeed admirably. The few trials, hitherto made, are said to have been successful; but further experiments are required. The better the food of cattle, the richer is the manure. About 30 tons of tolerably fermented dung is the ordinary allowance for a Scotch acre of potatoes. More is required for sandy, less for clay

soils. Of police dung, more generally is required to produce the same result. No kind of manure acts well on wet ground, the water preventing the access of air, and thereby obstructing the changes necessary to render the manure soluble. On light dry land, especially in dry seasons, and with potatoes that produce their tubers near the surface, there is a great advantage in planting the sets first in the drills, and then spreading the manure over them. In an experiment made last season, with great care, on sandy ground, manured with fully 40 tons of good dung to the Scotch acre, the produce was, with the sets placed over the manure, 224 cwt. 2 qrs. per acre; and, with the sets under the manure, 270 cwt. per acre. One man additional is required, in applying the manure in this way, as more care is necessary in putting it in; but this expense is much more than counterbalanced, by the better quality of the crop, and by the freedom from loss, by exposure to the sun and frost.

Composts.—Of the various substances used to make composts with common dung, peat earth seems to have succeeded best. One or two parts of dung are mixed with three of peat, in alternate layers. This, after one or two turnings, and time for moderate fermentation, becomes a rich mass, valuable for all soils, except those of its own character. In using peat as a manure, the lower strata, which seem to have been deposited from a solution in water, should be used rather than the upper, which consist of more recently decayed vegetables, very low in the scale of organization.—Peat earth, from the upper strata of bogs, unless fermented, produces a variety of sour weeds, not easily eradicated. Mixing lime with farmyard manure is a most pernicious practice. The lime attracts the carbonic acid, causing the ammonia to fly off, and rendering insoluble and nearly useless some parts that were before its addition soluble and valuable, and leaving a dry and comparatively useless mass.

The *Urine* of domestic animals is a very valuable fertilizer. In some parts of the continent, the solid parts of animal excrements are mixed with the fluid, and water added, to make the mass liquid, and in this state applied to the land. It is, however, generally kept in tanks till it has undergone a certain degree of putrefaction, which requires about four or five weeks, when it is considered fit for use. A very good method is to allow it to flow into a pit containing peat, which absorbs a large quantity. After this it is fully saturated, and then allowed to ferment for a short time, it forms a very good manure. The fluid that exudes from the dunghill should either be returned to it, or used in some of the ways mentioned above. It is valuable for all crops.

Night Soil.—The value of night soil as a manure, is now, perhaps, universally admitted. It has been for a long time, extensively used in China, and in most parts of Europe. Most of its components, as the animal matters, phosphate of lime, phosphate of soda, &c., are, by themselves, very valuable. By the laws of China, no part of human excrements is allowed to be thrown away. The Chinese manure cakes are composed of night soil and marl, dried in the sun. In this state it is sold to the farmer, who uses it either in powder or dissolved in water. Night soil has been estimated by some as equal to six or eight times its weight of stable dung. Mr. Dixon, of Lancashire, who recommends it to be mixed with dry peat earth, says it is worth a farmer's while to go twenty miles for it. The Craigintinny meadows, irrigated from the sewers of Edinburgh, produce often six

crops in the year, and some parts are let at £30 per acre, rent. Land in the same vicinity, which, a few years ago, consisted of loose sands, growing nothing but whins, by the same means have been converted into meadows, let at £15 to £18 per acre, annually. In Paris and London manures are prepared, of which this is the basis. When simply dried, it loses about 70 per cent. of water. Davy advised it to be mixed with lime; but that expels the ammonia, causing great waste. The same objection holds against the Chinese method of mixing with marl, which contains lime. Recently prepared and finely powdered charcoal, or peat ashes, are much better as they destroy the odour, as well as the lime, and absorb the fluid parts, without dispelling the more volatile.

Pottvin's Disinfected Manure is prepared at Whitechapel, by mixing night soil with a considerable quantity of recently prepared charcoal powder, and then drying the mass in a very gentle heat. It is chiefly used for turnips. From 13 to 15 bushels are considered equal to 10 bushels of bones. It is best suited to sandy soils. Price, in London, 13s. 6d. per quarter of 8 bushels.

Bones have effected a greater improvement in agriculture than any manure introduced in modern times, though guano seems likely to rival, if not to supplant, them. At present, in addition to all the bones collected in Great Britain, a large quantity is yearly imported, the declared value of which, in 1821, was £15,898; in 1837, £254,600. The chief ingredients in bones are cartilage and phosphate of lime (commonly called bone earth,) but there is nothing in their composition which is not a direct constituent of vegetables. In some places farmers prefer unboiled bones; in others, they buy as readily those from which the fatty matter has been extracted. As the various phosphates that have been tried have produced good turnips, it has been thought that the phosphoric acid is the grand manure for turnips; and, accordingly, sulphuric acid (vitriol) has been added to bones, with, it is reported, perfect success. In this case, the vitriol unites with the lime of the bones, forming gypsum, and leaving the phosphoric acid free. They are most useful on light, dry, sandy soils—next on limestone and peaty land; but on the strong clay or wet ground of any kind they produce little benefit. Some recommend that the bones should be mixed with three or four times as much earth; but, at any rate they should be allowed to ferment for a short time before being used. They have been applied as a top-dressing to grass, wheat, &c., in dust; but it seems more useful for turnips than for any other crop, though it has also succeeded very well with potatoes. The feeding quality of turnips, raised from bones, is said to be superior to that of turnips raised from dung. The quantity used by the acre varies from fifteen to forty bushels. For the turnip crop, a bushel is considered equal to a ton of well-made manure. An excellent method is, to use dung, and to drill in with the seed bones mixed with earth. In consequence of their high price, they are occasionally adulterated with lime that has been used in tan-works, old plaster, soap's waste, saw-dust, rotten wood, oyster shells, &c. The best remedy is to purchase from a respectable merchant. The average weight of the bones of a fat ox or sheep is one-fourth of the carcass, wanting the offal.

Bran, the ashes of which contain nearly 50 per cent. of phosphate of lime, has been used as manure for turnips. In 1842, an excellent crop was grown on bran, or pollard, alone. The ground on which it was used has since produced a very good

crop of barley. The progress of the turnips, on the bran, was slower at first; but towards the end of the season they could not be distinguished from those grown on bones or dung. It was sown by hand, near the top of the drill, and the seed placed in contact with it. About 18 cwts. were used to the Scotch acre, which at 3s. per cwt. for pollard, would cost about £2 10s. the acre. As a large quantity of bran is used by the calico printers, would not the refuse make an economical manure for turnips?

Rape Cake or Dust is an oily fertilizer. It is much used for turnips, for which it is admirably adapted, especially on clay soils, and in wet seasons. It is also used to wheat, and is said to be noxious to the wire worm. Its beneficial influence scarcely extends beyond one year. When one part of rape dust is mixed with thirty of common manure, it improves the latter very much. Rape cake costs about £6 and rape dust about £7 per ton. Five cwt. to 8 cwt. is enough for an acre.

Soot is a mixture of various matters, chiefly charcoal, with carbonate and sulphate of ammonia. These last are very valuable fertilizers; and the charcoal, by combining with oxygen, forms carbonic acid gas, which is absorbed by both leaves and roots of plants. It is used at the rate of twelve to thirty bushels per acre, to grass, wheat, &c. It has been recommended as more effectual and economical, to dissolve six quarts of soot in a hog-head of water, and apply it to the ground by a water-cart. A better plan, perhaps, is to mix equal quantities of soot and fine earth, and to riddle it over the ground, one man filling the riddle, by a shovel, from a cart or barrow, while the other shakes it over the ground. Its best to spread it in rainy or damp weather, about the end of March or in April.

Ashes may be divided into those derived from recent vegetables, and those from vegetables which have undergone considerable changes by time, as peat and coal. In the former class are included those from wood, weeds, and all kinds of vegetable rubbish. There is, however, a great waste in burning weeds, &c., as we thereby destroy the organic matter, leaving the least valuable parts only, behind. All such materials, therefore, should when practicable, be formed into composts, with lime or with salt, or with both combined, in the proportion of two parts of lime to one of salt. As we have in ashes, matters which have already been absorbed by plants, there is no doubt about their efficacy, since they can unquestionably be re-absorbed, especially by similar crops, under ordinary circumstances. Ashes of vegetable origin always contain a considerable quantity of potash, which is hence called the vegetable alkali. Potash acts on the insoluble organic matter in the soil, rendering it soluble; and also, in various combinations, is supposed to enter directly into the composition of plants.

Wood Ashes vary greatly, according to the kind of wood from which they are obtained. As, however, they cannot be had in this country, we need not occupy our time with them; though from the salts of potash, lime, and soda they contain, there can be no doubt of their value.

Kelp, or ashes of sea-weed—a very impure carbonate of soda—has been used as manure, being much cheaper than formerly. It has been recommended to be burnt at a low temperature; by which means it would be obtained in a state of powder, and be rich as a manure.

Peat Ashes, though variable as the sources from which they are obtained, always contain gypsum as their chief and most useful ingredient. There are present other salts of lime, as the phosphate and carbonate, with a small quantity of the salts of potash and soda, besides charcoal. They are chiefly used used as a top-dressing to clover and grass, wheat, &c., at the rate of four to five tons or more, per acre.

Coal Ashes are nearly the same in effect, when well burnt, as peat ashes; but the half burnt coals, or cinders, are of little use, except for opening heavy clays, or for condensing ammonia. These, also, owe their chief value to gypsum and lime—partly, also, to soda, which is derived from the sea salt generally present in our coal. They are often used as a top-dressing to grass lands over-grown with moss.

Burnt Clay is often used as a manure. It acts, by rendering the soil more porous, and by absorbing the ammonia, which it gives out, by degrees, to the crop.

Sea Weed is much used, in some localities, for potatoes, but it needs to be applied quite fresh, or else to be formed into a compost with earth. About thirty tons are used to the acre.

Owen's Animimized Carbon is like the *Disinfected manure*. One ton at £3, is equal to 25 bushels of bones, and is best for light lands.

The *Urate* of the London Manure Company is formed by mixing recently prepared charcoal, in fine powder, with solid and fluid feces. Mr. C. W. Johnston, who inspected the manufactory, speaks very highly of this manure, and of the care with which it is prepared. One ton, at £5, is sufficient for three acres of land. It is said to be at least equal to bones for turnips, and is much used as a top-dressing to wheat. It should not be placed more than two inches from the surface. Mr. Johnston says, its good effects on soils continues for three or four years. Liebig says, that night soils from towns where much animal food is used, is much richer than that of peasants.

Guano (or *Quano*, as it is called by Sir J. Sinclair, in his Code of Agriculture) is the putrid excrements of sea birds, mixed with bones, &c., found many feet in depth, on some islands on the coast of Peru. There are three kinds, white, red, and dark grey. The first is considered the freshest and purest, and fetches the highest price. As we obtain it here, it is a brown or fawn-coloured powder, which blackens when heated, giving of strong ammoniacal fumes. Liebig says, that the soluble substances in guano amount to half its weight. Johnston says, that sometimes 70 per cent. of the brown guano is soluble. It is usually mixed with a considerable quantity (five or ten times as much) of dry turf mould, or fine earth; and after remaining a few days or weeks, and being carefully turned, is fit for use. Sulphate of lime is sometimes added, for the purpose of fixing the ammonia. The advantage of this is doubtful, especially in the case of turnips, as it is probable that the more abundant the supply of ammonia the more rapid their growth; and all farmers of any experience know how advantageous it is to force turnips forward at first. For turnips, it is sometimes sown broad cast, and then the drills are formed with the double mould board plough, sometimes placed in the bottom of the drill, or sown in a little hollow made in the top of it. In any case, turnip seed will not vegetate if in contact with it in the unmixed state. Last season it produced in different cases better turnips than either bones or common manure, In-

deed, the numerous experiment made with guano unequivocally place it among the best, if not the very best, manure for turnips. Potatoes may be planted on the mixture, either in drills or in ridges. In an experiment made last spring, in connection with that reported under the head of farming manure, guano, used at the rate of 5 cwt. to the English acre (6½ cwt. to the Scotch acre) produced at the rate of 220 cwt. 2 qrs. per acre; common dung, under the sets, producing 244 cwt. 2 qrs.; and over the sets, 270 cwt. The stalks on the guano, from their first appearance, were of a deeper green tint than any in the field, which they preserved till they began to ripen. They were ripe about two weeks earlier than those planted at the same time. They did not seem to be specifically heavier than those grown on common dung. The Potatoes on guano, and under the common manure, were firmer and drier than those grown in the ordinary way. It is highly probable that it would be suitable for early potatoes. It has been tried on all soils with success, especially in a damp season. In recent reports it is stated that the effects of guano continue for three or four years. Doctor Brett, of the Liverpool Royal Institution, analyzed many samples of guano, and found the phosphate of lime to vary from 14 to 47 per cent. The salts of ammonia he found to be the muriate phosphate, and oxalate.

Fish of various kinds have been used as manure, but there are few places where they can be had cheap enough. Those most employed abound in oil. Their effect is very transient, lasting but for one crop. They are commonly formed into a compost before being applied.

Woolen Rags, which contain a large quantity of albumen, with lime, &c., are an excellent manure for hops; also for wheat and turnips. Twenty thousand tons are annually used in the south of England. They are chopped small, and sown by hand, at the rate of 12 cwt. per acre. Price £1 to £4 10s. per ton.

SEA-WEED AS A MANURE.

The crops on the Isle of Thanet are superior to the crops grown in the Inland countries; and having travelled much by our railroads, I should say superior to any crops in the country. What is this superiority attributable to? There appears to be nothing very peculiar in the soil, and there is nothing peculiar in the rotation in their crops. I may be mistaken, but I attribute the superiority of the crops to the system of forming their dung heaps, and the use of sea-weed as manure. The farmers on the island form their dung-heaps with alternate layers of sea-weed and farm-yard dung; and after raising their heaps to the height of eight or ten feet, they cover the whole with a layer of eight or ten inches of sea sand. The sea-weed contains a portion of sea salt and fish, and on heating becomes very putrid and offensive. It may be difficult to analyse the compost of sea-weed and horse dung but it may be well to collect the liquor that oozes from the heaps, and have it analysed, when, I suspect, it will be found to correspond with guano in essentials. There is no doubt about its effect on land, for the Wheat, in point of straw an ear is so very superior that it cannot be improved in quality and quantity; and it only remains to be ascertained whether guano, or any other substance, in point of economy has any superiority. It is a mistaken notion to suppose, that, by any contrivance, Wheat can be increased to any extent in a limited portion of land, or that more than a certain limited quantity

of stalks of corn can be raised; every farmer knows that when stalks are too near together, they rot and decay. The great object to be sought is a healthy growth of straw, with a fine large ear, which shall yield a plentiful supply of good sound Corn; this result is attained on the island of Thanet. I was induced to inquire what was the cost of collecting sea-weed on the island of Thanet, and was informed that the price paid at this season for it to the collectors of the weed was 6d. a cart load in its wet state; this cart load requires two strong horses to draw it, and may weigh considerable upwards of a ton; but when properly dry, it may lose half its weight, and much of its fertilizing qualities. The farmers remove in its wet state to their compost heaps, and do not lose its fertilizing juices. I am induced to trouble you with these few observations, that our agriculturist may furnish employment to a very useful class of our subjects who, in winter, have little or no employment—I mean the boatmen of our sea-ports, who would be, too, happy to collect the sea-weed, and deliver it at the terminus of our railroads at probably 6d. per ton; for this is the price paid by the farmers to agriculturists in the island of Thanet in the summer season, when other employment is obtainable; and, of course, in the winter, when there is little or no work going forward, and when the sea-weed is deposited in the greatest quantity, from the sea being ruffled and stormy, our boatmen would be, too, happy to obtain the employment on the same scale of wages. I am of opinion that the sea-weed might be pressed, by the aid of machinery, into a convenient compass, to render its transport by our railroads and our ships not very expensive; and when our merchants are sending their ships to the South Sea for guano, they would enter into the speculation of conveying the sea-weed from our island sandroads if the cost of the freight from our sea coast to the terminus of our railroads leading into the interior of our island would be realised.—*Correspondent of Mark Lane Express.*

IMPROVEMENT BY DRAINING LAND.—We had the pleasure, last week, of witnessing the effect of draining on an extensive scale, on a farm we visited in the County of Worcester. The proprietor had in his possession a lot of land of about 40 acres, 30 of which was an unproductive boggy meadow and swamp, so level that, to all appearance there was but little prospect of giving it a thorough draining, or of its ever being made capable of producing enough to pay for any effort to subdue it or bring it into cultivation. Its situation was near the place where the gentleman was about to erect his dwelling house, and from which he would have a constant view of this unproductive tract; and furthermore, the fogs and dampness from it would be prejudicial to health. He therefore determined to undertake the arduous task of draining, subdividing, and converting it into good grass land. In doing this, he had, no doubt, four objects in view, viz: improvement in the appearance, health, profit, and example. He made a beginning about five years since, without experience and without knowledge, except what he had gleaned from agricultural books and newspapers, while engaged in trade in the city. With these qualifications only, it was natural to suppose that the old farmers who had from their earliest years been familiar with the manual labour of the farm, and had from year to year followed in the steps of their predecessors, would watch the operations of a "book farmer," with a disposition to undervalue and ridicule the "new fangled notions" of one so inexperienced.

When he had made a beginning, and could already show his acres of land reclaimed, producing a heavy burden of grass, it was prophesied that it would not last—it would go back again, the coarse grass would appear, &c. But notwithstanding these prophecies and remarks, he still persevered, and now nearly the whole 30 acres have either been subdued, or so far drained, that the remainder to be done is comparatively small to what has been accomplished. He has already cut at least three miles of ditches, and so far drained it that most parts of it are accessible. Four acres were turned over with the bog-hoe the last season, and large piles of wood have been taken from the swamp, which had been burned perhaps for ages. Some parts of the meadow were scarified and seeded down to grass without being ploughed, and have produced good grass for a number of successive years. Sure enough the coarse grass had made its appearance in some spots, but this only indicated that the cold springs that saturated the soil had not all been reached and cut off, and it was found necessary to do over some of the work in a more thorough manner. Ditches were cut on the margin of the upland; the main branches were sunk deeper, so that the water was reduced a foot lower throughout the whole meadow, and at the present time, the greatest difficulties appear to be overcome, and the proprietor has the satisfaction of feeling that his labor has not been in vain, and the time is not far distant, when he will cut on every acre of this land $2\frac{1}{2}$ tons of good hay, that is to say, 75 tons, where very little was produced before. "But the expense is very great, and we cannot afford to lay out so much on our meadow." is the cry with some, and at the same time they will purchase upland, that at its best state, will not produce more than two tons to the acre, and pay at the rate of 75 or \$100 per acre for it. Now why not be at the expense of 50, or even 75 dollars per acre in reclaiming a swamp, which is not worth \$10 per acre in its original state, and that will never fail, when well done, rather than purchase the upland, that produces less hay at greater expense per annum than the meadow? By draining swamp lands, also, you abate a nuisance to the community, and cut off one of the sources of disease from the noxious vapors exhaled from their surface. We noticed immense compost heaps, in course of preparation for the upland, the materials of which were taken from the ditches, so that part of the expense of draining the meadow must be charged to improving the highlands.

As this gentleman keeps account of expenses incurred in draining the meadow, and as he is disposed to give the public the benefit of his experience, we shall be enabled, no doubt, at some future time, to publish the particulars of his operations.—*N. E. Farmer.*

COMPOST MAKING.—Joseph Mangle, in the *Boston Cultivator*, says:—"I conscientiously believe that no expenditure of capital can at all compare in profitable return with money put out at interest in the accumulation of articles with which to form compost heaps. Every farm out to have three of these heaps, at the same time—one being formed, one just finished, and a third ready for carrying abroad after the necessary turnings and mixing and pulverisations, have been given to render the mass fit for the immediate food of plants; then it might be employed either as a top dressing for meadow or pasture lands, or be plowed lightly in for corn, grain, &c., thus adding a staple to the soil and operating at the same time

both chemically and mechanically; and no one would really believe the ease and facility with which about a couple thousand loads of compost could thus be collected together, if the business were to be regularly conducted through the whole year. But here is a statement which exhibits the fact in a light that strikes every one at first sight.

Suppose, then, a man and ox-cart should be employed for 250 days in the year, collecting bank earth, tussocks, leaves, weeds the parings and scrapings of highways, swamp mud, openings of ditches, and refuse articles of every kind, and to carry but six loads a day, throwing up the materials and spreading them completely over the heap at the close of every day's work. Why here would be an accumulation of 1500 loads at the year's end. And allowing 50 cents a day for the man, and as much for the oxen, the cost would be \$250 or 70 cents a load; carrying, mixing and piling included. Now if we consider that this enormous accumulation would be an addition to the means afforded by the barn and cattle yards what can more clearly prove, that capital so expended is money at compound interest? And again, if as the carts were emptied the mass were mixed with the stable manure, in the proportion of one load of dung to three loads of muck, &c., and after fermentation, the whole were turned over and pulverised, and mingled with a good solution of lime, why, the advantages could scarcely be calculated. And it may be inquired whether this mode would not be far preferable to sending the team many miles to town for a load of stable dung the cost of which and carriage would be equal to about 10 loads of this compost.

It may be safely laid down as an axiom, then, that the aforesaid man and yoke of oxen would yield more profit by their labor than any half dozen teams otherwise engaged on the farm.

Few persons are aware of the fact, that the oftener the compost heap is turned over and pulverized, the richer its contents become. To carry abroad muck from the heap before it has been properly amalgamated by frequent exposure to the atmosphere by turning and mixing, is to throw away more than one-half the profit to be derived from the system of composting."

HEALTH AND COMFORT.—To prevent cold feet, wash them frequently, and rub them thoroughly with a coarse cloth; this removes obstructions from the pores, and produces a healthy state which is conducive to warmth. When the feet appear clean, the pores may be obstructed and the perspiration impeded so as to produce discomfort, and in some measure injure the health.

To prevent cold feet at night, in addition to the above cleansing process, take off the stockings a short time before retiring, and with them rub the feet hard until they are not only warm but begin to feel hot. This will greatly add to pleasure and health, which, in many cases, greatly depend on things which may to some appear trifling.

To keep the feet dry, use good stout boots or shoes, and stuff the leather, upper and lower, full of some water-proof composition. Tar is a good ingredient, as it will bend and not break. Two parts of tar, two of beef's tallow, and one of bees' wax, make a good composition for boots and shoes. Apply it quite warm, and warm the leather that it may penetrate. As farmers are frequently exposed to wet, they should be careful to keep their feet dry and warm, for on this their health and comfort in a great measure depend.

There are many kinds of composition that are good to resist water, and preserve leather, and the proportions of the above may be varied. Tar and tallow will answer well alone; linseed oil is used as an ingredient in composition. Neat's foot oil is excellent and preserves the leather soft.—Castor oil has been highly recommended for this purpose.

DISINFECTATION OF MANURE.

It is long since we adverted to the *Disinfection of Manure*, that most important operation, which alone will ever induce people in this country to employ habitually the fertilising materials at their command, or prevent their throwing away money in the pursuit of substitutes uncertain, dear, and comparatively inefficient. It is indispensable to find very cheap methods of destroying the offensiveness of decaying matter, or no stop will ever be but to the enormous indirect waste of national wealth which is now going on.

Among the substances which have from time to time been proposed for effecting this end, some have been dear, like chloride of lime, charcoal, &c., others dangerous to use, and insufficient, like sulphuric acid; some slow on their action, like gypsum; others too bulky, like peat earth; and others troublesome to employ, as is the case with muriate of lime. Each of these reasons has proved a bar to the employment of such disinfecting agent. But among those which have been occasionally mentioned is one that seems more free than any others from practical objections, and that is sulphate of iron, or what is called in the shops copperas, or green vitriol.

In the year 1842, a Mr. Schattenmann published no account of his manner of employing this substance; and we mentioned his method at p. 191 of our volume for that year. As he is a practical man, and his employment of the salt was on a large scale as a farmer, his observations were entitled to the greater attention. Nevertheless, we do not find that his advice has much been followed; and therefore we beg to invite attention to the following additional evidence produced by Mr. Schattenmann in favour of the use of sulphate of iron:

"The offensive exhalations produce by putrefying matters arise," says this excellent observer, principally from the flying off of carbonate of ammonia and sulphuretted hydrogen gas: but if a solution of sulphate of iron is thrown among such matters, a double decomposition immediately takes place; the sulphuric acid of the sulphate of iron combines with the ammonia, and converts it into a fixed salt; the iron combines with the sulphur, and forms a sulphate of iron. The unpleasant smell of ammoniacal vapour and of sulphuretted hydrogen disappears immediately, and the putrefying matter that is acted on retains nothing more than a feeble odour, which is not in the slightest degree disagreeable."

Now any one may easily verify this fact by taking smelling salts, dissolving them in water, and throwing in some green vitriol; when the fluid will become black in consequence of the separation of the black oxide of iron from the sulphuric acid and the pungent smell will go off in consequence of the combination of the sulphuric and ammonia. In like manner if some green vitriol be dissolved in water and a steam of sulphuretted hydrogen gas be sent through it the fluid will become black with great rapidity, in consequence of the formation of sulphate of iron by the decomposition of the gas; and the disgusting smell will cease to be perceived.

No doubt, then of the accuracy of Mr. Schattenmann's statement can be entertained, and thus a very cheap and rapid means of destroying foul smells is at once obtained; not indeed as quickly as by the use of chloride of lime, but an infinitely less expense. By this means the most offensive matters may be purified, and putrid substances of the worst description removed without even so much annoyance as arises from common stable manure.

No fear need be entertained of the sulphate of iron, because of its iron, injuring the quality of the manure; experience shows what theory indicates, that it produces no such effect, but that it secures all the advantage anticipated from it without a single drawback.

We are tempted to introduce this subject into the Horticultural part of our Paper, because in fact, much as it interests everybody, it concerns more especially gardeners, who are either obliged to buy their manure, or if it is furnished from a farm, are involved in incessant disputes with the farmings bailiff on account of it. We advise them to think well upon this article, to disinfect all those offensive matters which are now wasted and to show the farming bailiff that with hot-water on one side, and sulphate of iron on the other, they can snap their fingers at the farm and all the assistance that is so grudgingly bestowed by it.—*Gardiner's Chronicle*.

KEEP YOUR PIGS WARM.—Pigs cannot be kept through our long, cold winters with advantage, unless they are warm, dry, and comfortable. If they are exposed to cold, wet and filth, they must inevitably consume a great deal of food just to keep them alive, and as they will not gain for such unfavorable circumstances, there is a loss of all the food they consume, unless we reckon the advantage of having a pound of live flesh in the spring for one in the fall, and this is by no means a profit worthy of much consideration, as the prices usually are in the market.

The same food that will barely winter a pig with poor management, will keep him in a thriving condition in a good warm shelter, and the difference in the two modes of management is a mere trifle, while the difference in the result is important. The same difference that there is in spring between a large sleek growing pig, and a poor, stunted, wretched looking creature that is hardly fit for a foundation to build upon, as he will have become stationary as to growth, and some time will be required to get him started again in the progress of improvement.

Pigs should have a bed of straw or litter to sleep on that is not only warm, but free from filth, and in such comfortable quarters they will spend much of their time in quiet and repose, and thrive well on a moderate portion of food, if it be well cooked and fed to them warm. Besides their usual food they should have condiments to keep them in a healthy state, such as charcoal, rotten wood, pure live earth, if they cannot conveniently root down to it, and now and then a small dose of brimstone and antimony.

If pigs are generally kept on cooked food, they should occasionally have a few raw potatoes and other roots, apples, &c., for a change. During winter their beds should be replenished whenever a deficiency occurs from a waste or other cause, as such frail materials soon wear out and mingle with the dust. If pigs be confined to a pen, the manure should be removed, else a large accumulation will injure the health of the animals from the filth that

will constantly adhere to them. Though the pig is regarded as a dirty animal from his constantly running his nose into mire and dirt, yet he is very partial to neat, dry quarters for a resting place after the various manœuvres with his proboscis in search of food or condiment, and for the laudable purpose of healthy exercise.

Six Fairs in the Year.

THERE will be a FAIR for the sale of Cattle and Agricultural Produce, held at Mr. THOMAS GRAHAM'S, three miles from Government House, on the Gagetown Road, and thirty miles from St. John, the same distance from Fredericton, and twelve miles from Gagetown, on the second Tuesday in November, the second Tuesday in January, the second Tuesday in March, the second Tuesday in May, the second Tuesday in July, and the second Tuesday in September. Queen's County, Oct. 28, 1844.

THE HORSE.—The celebrated Author of Nimrod on Condition asserts that he never had in his possession a horse that ever suffered from worms, went blind, or broken-winded; neither experienced lameness from thrushes, cracked heels, farcy, or humours: which he attributes mostly to the giving of such alterative or physic medicines every two months, as to excite a sufficient discharge by the skin, bowels, or kidneys, and thereby produce a regularity in the system. His great practical experience shows the necessity of administering such medicines (particularly to horses in work;) and to meet this desired object, no more prudent medicine can be given than GIBTON'S WORM and CONDITION POWDERS, as a safe and certain remedy for destroying all species of worm, and removing and keeping back the above diseases; and particularly if given at this season and in the spring, they will put the horse in fine condition for the coming season, and give him additional strength and vigour, purify his blood, and add a fine gloss to his coating; and may be administered without making any alteration in either food or labour; and as the horse will take these powders freely, the groom will have but little trouble in giving them.—Sold in boxes, with the purgative ball, by JAMES F. GALE, *Chemist & Druggist*, Queen Street, Fredericton.

VALUABLE LAND FOR SALE.

A Tract containing 900 acres, in the Parish of Dumfries, lying between Land occupied by Asa Dow, and Land owned by the Heirs of the late John R. Patterson. The Great Road passes through this Property, and a considerable portion of the Tract is cleared, and will be sold entire, or in Lots of 200 acres, to suit purchasers.

Also,—A Lot of wilderness Land in the Parish of Woodstock, in the rear of Lands occupied by John Dibble, Esquire.

Also,—200 acres of wilderness Land in the Caverhill Settlement, Parish of Queensbury Apply in Saint John to Messrs. R. RANKIN & Co., or to Wm. J. BEDELL, Fredericton.

Oct. 9, 1844.

FOR SALE.

2,200 ACREs OF LAND, situate in the Parish of Wicklow, County of Carleton, granted to L. H. Loudham and E. T. Harrison, Esquires.

Also,—1,200 acres situate in the Parish of Dumfries, County of York, granted to Charles Rainsford, Esquire. The same will be sold in lots to suit purchasers. Apply to G. BOTSFORD.

Fredericton September 31 1844.

More Light, Wholesale & Retail.

THE subscriber offers for sale at very low prices, wholesale and retail, one ton of best Domestic Manufactured Mould and Dipt **CANDLES**, warranted a Superior article. JOHN T. SMITH.

St. John, Sept. 20.

No. 4, King Street.

OATS WANTED:—For a good quality of which a liberal price will be paid.

Dec. 14.

THOS. PICKARD.

FOR SALE.

6 CASKS Paint Oil; 15 cwt. best No. 1 Lead. F. W. HATHEWAY.

No. 20, South Wharf, St. John.

FLOUR AND MEAL.

Received from Philadelphia, ex Ship James White, and Schooner Megunticook.

150 BARRELS superfine FLOUR, (New Wheat) 120 do Corn Meal, 100 barrels Rye Flour.

IN STORE:

- 20 barrels No. 1, Fat Shad,
- 100 sides New York inspected Sole Leather,
- 150 Dry, salted, and hung dry Hides,
- 6000 feet 8x10 and 10x12 Glass,
- 25 chests souchong Tea, 50 brls clear Pork
- 50 boxes smoked Herrings, 50 sides Upper Leather,
- 50 Reams Printing Paper,
- 40 corn Brooms, (American.)

Wheel Heads, Nests Measures, Pails and Brooms (domestic,) Dry Fish, Tobacco.

COLIN E. CROSS.

Sept. 9, 1844.

January 6, 1845.

In Store, on Consignment, and for sale Low.

40,000 FEET English window Glass, assorted, from 14 x 20 to 5 x 6;

- 30,000 Principe
- 16,000 Hernandez
- 5,000 Light Brown
- 2,000 Havana

CIGARS.

- 150 boxes No. 1 Family Soap,
- 600 do. Smoked Herrings.
- 50 barrels Pilot Bread, 45 do. Navy Bread,
- 50 do. Pitch and Rosin,
- 50 do. New York Apples, (Baldwin)
- 20 do. Silver Skin Onions,
- 20 do. Walnuts, 20 chests Congo Tea,
- 10 do. Bohea Tea, 15 bales Feathers,
- 25 kegs and half barrels Saleratus,
- 12 Buffalo Skins, 1 Ton Hams,
- 15 bbls Nova Scotia CIDER,
- 1,500 ft. Branch VENEERS,

200 Looking Glasses, mahogany Frames, assorted sizes; 10 French Bedsteads, 10 boxes Stearine Candles, 5 do. Tallow do., 36 brls. Beef, (in Bond.)

THOS. HANFORD & CO.

Saint John, N. B.

WANTED.

400 PAIRS good Socks and Mitts, for which the highest prices will be paid, either in cash or trade.

Fredericton, Dec. 3, 1844.

F. W. HATHEWAY.

HORSES FOR SALE.

THE Subscriber offers for sale two likely young Horses—one four years and the other three years old past, both well broken in harness. Also—One single Horse-Sleigh. Inquire of B. A. Huestis, Fredericton, or of Mr. Samuel B. Smith, Keswick Creek.

JOHN T. SMITH.

December 17, 1844.

CAUTION.

ALL Persons are hereby cautioned from trespassing on the following Lots of Land—

Lots No. 12 and 14, in the Caverhill Settlement, in a grant to Dr. Caverhill and others, said Lot No. 12 and 14, granted to Benjamin A. Huestis, and bounded on the West by the Main Road, and on Lot No. 24, granted to John A. Huestis, containing in the whole 300 acres and now owned by Messrs. Robert Rankin & Co. Any persons trespassing on either of the above Lots, will be prosecuted.

W. J. BEDELL & CO.

Fredericton, Dec. 30, 1844.

OATS WANTED.

W. J. BEDELL & CO., wish to purchase a quantity of good OATS.

Fredericton, Dec. 30, 1844.

Strychnine—Wolf Poison.

A fresh supply of the above received by JAMES F. GALE.

Jan. 8th, 1845.

New Wonders Every Day,

WITH ABUNDANT PROOF THAT THERE IS
A CURE! FOR ALL!!



HOLLOWAY'S OINTMENT!!!

An Astonishing Cure of two Malignant Abscesses, Besides a Wound in the Thigh of Nine Inches long, laying the bone completely bare.

EDWARD WHITE, residing at 45, Clement's Lane, Strand, London, was an In-door patient at King's College Hospital, for two Malignant Abscesses in the Thigh, and a Wound Nine Inches long, which laid the bone completely bare on the same limb. He could neither sit, stand, or walk, but was obliged to lie continually on his back. He remained at the above-named Hospital during a period of Five Months, at the expiration of that time he was informed that "nothing more could be done for him." He was then carried to his home in a coach, when he commenced using HOLLOWAY'S OINTMENT AND PILLS, which immediately gave him relief, and ultimately cured him, after every other means had failed.

An almost Miraculous cure of a Bad Leg!
Of Five Year's standing. The Patient had been Discharged from Guy's Hospital, without deriving the LEAST BENEFIT from that Institution.

Mrs. FRY, residing at No. 35, Trafalgar street, Walworth, London, was some time since admitted as an In-door patient at Guy's Hospital, with a Bad Leg of Five years' standing. The flesh on the leg was in some places nearly as hard as bone, it resembled in appearance the trunk of an old tree, being in knots and lumps; it was greatly swollen, and NINE FRIGHTFUL ULCERS in it; she derived no benefit whatever at the Hospital, and returned to her home. Her case was so bad that for three years she was carried up and down stairs every day like a child, being perfectly helpless. She was in this deplorable state when she commenced the use of HOLLOWAY'S OINTMENT AND PILLS, which, in the course of about Three Months, performed a perfect cure when every other means proved unavailing.

A Man's Face Prevented from being Eaten away By Cancerous Sores, by means of "Holloway's Ointment and Pills."

JAMES WEBB, a Brewer's drayman, residing in Robin Hood Court, Leather Lane, Holborn, London, had a large hole which went through his cheek and several other Places which were on both sides of his face, eating all the flesh from it. He was an in-door patient in Charing Cross Hospital for six months, without being able to get a cure. He expected that nothing could save his life until he was advised, as a last resource, to use "HOLLOWAY'S OINTMENT and PILLS," which immediately stayed the ravages of this terrible complaint and ultimately healed all the Cancerous sores, and with the exception of frightful marks in his face, he is as well as ever he was.

A Case of a Loathsome Skin Disease, Attended with Dreadful Swellings of the Whole Body, that had resisted the treatment of nearly all the Hospitals in London, cured by Holloway's Ointment and Pills.

A child five years of age, named JONES, whose father is a shoemaker, living at No. 4, Horse Shoe Alley, Wilson street, Finsbury, London, have been afflicted from the age of sixteen months old, with fearful and dreadful swellings all over her body, which used to affect her periodically; at such times her face would change its colour and remain perfectly BLACK; her body was always covered with large malignant sores. For this unknown complaint the child was taken by her mother to nearly all the Hospitals in London, and most of the surgeons of eminence; none appeared to understand her disease, and she got no better from their treatment. As a forlorn hope HOLLOWAY'S OINTMENT and PILLS were tried, which not only gave relief but completely eradicated the disease from the system, so that the child is now restored to perfect health and not the least vestige of the former complaint remains.

IN ALL DISEASES OF THE SKIN,

Bad Legs, Old Wounds, and Ulcers, Bad Breasts, Sore Nipples, Stoney and Ulcerated Cancers, Tumours, Swellings, Gout, Rheumatism, and Lumbago, likewise in case of Piles; the Pills in all the above cases, ought to be used with the Ointment; as by this means cures will be effected with a much greater certainty, and in half the time that it would require by using the Ointment alone. The Ointment is proved to be a certain remedy for the bite of Moschetoes, Sand-flies, Chuego-foot, Yaws, and Coco-hay.

Burns, Scalds, Chilblains, Chapped Hands and Lips, also Bunions and soft Corns, will be immediately cured by the use of the Ointment.

The Pills are not only the Finest Remedy Known, When used with the Ointment, but as a general Medicine there is nothing equal to them. In nervous affections they will be found of the greatest service. These Pills are without exception the finest purifier of the Blood ever discovered, and OUGHT to be USED BY ALL!!!

Sold by the Proprietor, 244, Strand, (near Temple Bar.) There advice may be had gratis, and by all respectable Venders of Patent Medicines throughout the civilised world, in Pots and Boxes at 1s. 9d. 4s. 6d. and 7s. each. There is a very considerable saving in taking the larger sizes.

N. B.—Directions for the Guidance of Patients are affixed to each Pot.

JAMES F. GALE, Chemist & Druggist, Agent for Frederickton, N. B.