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

Vol. I.

FREDERICTON, N. B. AUGUST, 1844.

No. 4.

THE FARMER'S MANUAL,

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THE FARMER'S MANUAL.

XENOPHON has remarked, "that the arts thrive where Agriculture succeeds prosperously," and Mr. Gibbon has declared "Agriculture to be the foundation of manufactures; since the productions of nature are the materials of art." The mechanic and the artist holding themselves no share in the divisions of the earth, receive a voluntary tax from the owners of the soil; and these are instigated by their own interests to improve the estates, with the produce of which they may procure additional pleasures. The real interests, therefore, of the agriculturist and manufacturer are not irreconcileable but friendly, each depending for support on the successful prosecution of the labors of the other, and each receiving the most permanent advantage when a like prosperity is blessing the employments of his neighbour. It were well for some portions of the world if this truth could be as faithfully observed as it may be easily demonstrated—and the arms of the farmer and mechanic relieved from the imposition of duties and the straightness of distinctive protections be made free, to produce on the easiest terms the fruits of their respective labors, and to dispose of these in such manner and at such places as should promise the best returns. But this is not the subject on which we proposed to discourse our readers at this time, and

we must leave it, though perchance unwillingly. We return to our rough draught of the history of Agriculture.

It is quite impossible to fix with any degree of certainty, what time Agriculture was introduced into Britain. It was not unknown when Julius Cesar first invaded the island, and he supposed it to have been introduced by the Gauls about one hundred years before that invasion. It is stated by Pliny that this people were acquainted with the use of marl as a manure, and that it was peculiar to them and the people of Britain. Lime, too, was used as a manure among them before the invasion of Cæsar.

Although after the establishment of the Romans in Britain immense quantities of corn were annually exported, the Picts and Scots soon disturbed the labors and destroyed the fruits of British industry, and the supervening wars in which they were involved by the Saxons, drove them from those portions of their country best suited to Agriculture. The rents and still more the low prices of land prove the great decay of Agriculture at this time—the price of an acre of the best land being no more than sixteen Saxon pennies, or four shillings of our money; four sheep being equal in value to an acre of the best land, and one horse to the value of three acres.

The Norman invasion improved Agriculture, for by that event many thousands of husbandmen from Flanders, France, and Normandy, settled in Britain and cultivated farms after the manner of their countries. Many Agricultural implements, like these now in use, though less perfect, were brought over and used by them. Summer fallowing of lands for wheat, and ploughing them several times, were frequently practised by the English farmers in this period. Ingulphus, abbot of Croyland, under the Conqueror, supplies an early and interesting instance of improvement. Richard de Rules, Lord of Deeping, he tells us, being fond of Agriculture, obtained permission from the abbey to enclose a large portion of marsh for the purpose of separate pas-

ture, excluding the Welland, by a strong dike, upon which he erected a town, and rendering these stagnant fens gardens of Eden. The example of this spirited cultivator was followed by the inhabitants of several neighboring villages who, by common resolution, divided their marshes among them, when some converting them to tillage, some reserving them for meadow, others, leaving them in pasture, found a rich soil for every purpose. Still the culture of arable lands continued very imperfect. Fleta remarks in the Reign of Edward I. or II., that unless an acre yielded more than six bushels of corn, the farmer would be a loser, and the land yield no rent.

We are after all very much in the dark respecting the state and progress of Agriculture previous to the 14th century, but in the latter end of the 15th, it became cultivated as a science, and very rapidly improved. At this time, Fitzherbert (a Judge of the Common Pleas) distinguished himself in practical husbandry; he studied the nature of soils and the laws of vegetation with philosophical attention—composed a theory and confirmed it by experiments—rendered the study agreeable as useful, and contributed to the honour and advantage of his country, by increasing the sum of knowledge and kindling the spirit of emulation and enquiry in reference to this most important Art.

During the civil wars, the labours of the husbandman were temporarily checked, yet several valuable writers flourished, and the art received encouragement. Sir Hugh Platt brought into use many new kinds of manure—among which we notice salt, fullage of streets in cities, dunghills made in lairs, fern, hair, calcination of vegetables, ashes, urine, &c. &c.

Gilbert Platten, too, in the Reign of Queen Elizabeth, did signal service by his writing, for which he was ungratefully rewarded by being suffered to perish of hunger in the streets of London, and die without a shirt on his back. The greater number of the esculent vegetables now in use, were introduced in the Reign of this Princess.

Hartlib, the friend of Milton, received from Cromwell £100 a year to reward his valuable efforts in the cause of Agriculture. In his time the art was carried to very considerable perfection for the expences of the preceding wars had compelled the country gentlemen to become industrious. At the restoration, however, this industry was lost in neglect and dissipation, and husbandry again fell into neglect.

 In consequence of having a heavy job of work on hand, which we could not well delay, we had to postpone the publication of this number of the *Manual* for a week beyond the time it would otherwise have made its appearance. Our endeavour shall be to avoid an occurrence of the kind in future.

WHEAT CROP.—It is said the prospects of a bountiful Wheat harvest throughout the Province, was never better than that presented during the present season, but within a few days past it has been discovered that the Weevil has got into the heads of the grain, and eaten nearly the whole of it.

The information we have been enabled to gather is, that there can scarcely be a field of wheat found in all the country above Fredericton, as also in many places on the Nashwaak and Miramichi rivers, but what is entirely destroyed, at least so far as respects the grain, and that the farmers are now cutting it down for the use of their cattle.

We have heard of a method by which the Weevil may be destroyed, and the grain protected from injury, and are credibly informed that it has proved effectual in saving the crop in some instances. It is, while the grain is heading, and during the time it is in milk, to mix Tar and Brimstone together, and set fire to it, and then before sun rise, for a few mornings, pass along on the windward side of the grain so, as to allow the smoke to settle upon it while it is wet with dew.

This is but a simple method to accomplish a great purpose, and as the expence is very trifling it should not be forgotten at another season.

POTATOES.—In many of the gardens and fields in the town and neighbourhood, the Potatoes are completely eaten by vermin, the stalks bearing the appearance of having been struck with heavy frost. There is no certainty as to what the cause may be, but it is attributed to a continuance of wet weather. If any person can give a reason for the failure of the potato crop in these instances, and inform us how a similar occurrence may be prevented in future, we will publish it for the good of all concerned.

(For the Farmer's Manual.)
LETTERS OF "A FARMER."
LETTER X.

Having lately seen an article on the subject of cutting Grass in which the writer approves of cutting "it when in full bloom," I beg leave to differ with him for the following reasons, viz: 1.—When the grass is in full bloom, or, as we term it, in blossom, it is growing and increasing in bulk and quantity faster than at any other period. 2.—Grass cut in blossom, shrinks in curing, and produces a much less quantity of hay; and 3.—To cut the grass in blossom injures the root more than to cut it at any other season, and this consequently injures the meadow for the ensuing year.

Having ascertained long since that the greatest strength of the soil was required to mature the wheat crop, and that grain when cut in blossom does not impoverish the soil any more than the green crops do, I applied the same philosophy to grass, and cut it in blossom to prevent deterioration of the soil, but my own and other's experience have taught me that it is best to let the grass and seed have its full growth before cutting, but not to allow it to become so ripe as to fall off.

It is well worthy of remark that cattle are seldom known to eat the blossoms of clover and some other grasses, and we frequently see a short pasture white with clover blossoms; but as soon as the seed ripens it is devoured greedily, and thus the seed is abundantly scattered through all ranges of pasture. Whether this circumstance arises from a disrelish to the taste of the flower, or from the circumstance of its being generally occupied by a little often-

sive insect that sucks the honey, I am aware.—The latter may probably be the case, for a kind and bountiful Providence is very subtle in its methods of protection.

Hay should generally be secured in the month of August, but the greatest inconvenience among farmers in securing their hay is the want of sufficient help to secure it at the proper season. Clover will frequently show blossoms all the season, but when timothy is fit to cut it should all be secured in one week.

Some think that one dew will injure the hay materially, but I have found it a good system to turn over the wilted swath at night to receive the dews on the green side, and this greatly facilitates the operation of curing the next day, and prevents any injury from the dew.

Few are aware of the great value of salt in curing hay when there is a necessity of putting it green into the mow. It is more than twenty-five years since I had occasion to put up a stack of hay very green, and fearing it would heat and rot, I used about a peck of salt to a ton and I found the following winter the hay was of a beautiful green colour, and in perfect order. I have frequently tried it since with the same good effect though in less quantity. The farmer in stowing his hay should always have the bucket of salt handy; if it is damp enough to heat, a very little salt will effectually prevent its heating and preserve the color and strength of the grass.

In speaking of the proper season for cutting grass it is worthy of remark that none of our natural grasses will bear cutting early, which has been too frequently proved on our natural meadows and intervals in this Province. If the Blue Joint is cut before it is full grown the same meadow will not be worth mowing the next year, and the same case will apply to most other natural grasses. Even thistles cut in blossom are effectually destroyed.

On Manures.—It is pleasing to see and hear an inquiry into the best method of preserving and securing manures, and the interest manifested by some on that subject is really gratifying at the present time. Several, I find, have come to the very just conclusion that the liquid manure from the stable and barn-yard is far more active and powerful when in a state of fermentation. Such discoveries, the result of small experiments, cannot fail to afford interesting and open a way to useful information. But while FLORA improves her monthly roses and geraniums with Guano and other active substances from a small tub, I hope to see a more general and extensive preparation by an abundant collection of absorbing substances such as may be considered well worthy the attention of

A FARMER.

LETTER XI.

It is of great importance to Farmers to have their implements of husbandry so constructed as to be effectual with little labor, and for this purpose they should generally be light.

A heavy axe, hoe, pitchfork or rake causes fatigue, and furnishes an excuse for rest and neglect in the labourers. The scythe should be good to cut, and well fitted to suit the mower, and there are no others equal to those imported from England. The spring-steel forks are excellent, and the farmer should never be without them. The modern hoes are cheap, light and well adapted to the purpose. The potatoe hooks for digging are also a great improvement; and iron ploughs are also abundant and durable. But the horse-rake,

although little known and used is a most important article for haymakers. I would not be without my horse-rake for the services of the best labourer in the Province during the haying season. Every man who has ten tons of hay to rake should have one; but unless they see one used for a sort time, some would be at a loss how to manage them. After, however, seeing the principle on which they act a careful man will know how to run one well in half an hour.

With our fields free from stumps and roots, our ploughs and harrows of the most improved construction, strong and convenient teams, the example of our forefathers, and the united skill and research of the moderns, shall we not look for an improvement in Agriculture?

Do we not see it wherever a careful experiment is made? Where is the careful farmer who has followed no other profession and failed in Agriculture? I hear some complain of bad seasons and others say for some reason or other, which they are at a loss to account for, Grain and grass do not turn out as they used to do; but upon examining their farms I find every symptom of bad management which has produced deterioration. Old worn out meadows annually mowed and pastured for twenty years or more, and plowed fields as long under tillage which they are afraid to plough more than four inches deep lest they turn up the cold clay or subsoil. On hearing the exclamation what shall I do? or, how can I help it? I answer, as your fields are all poor together your case is hard, but not hopeless, commence top-dressing your meadow, and first turn half of it out to pasture until you are prepared to do better by it. Plough your land one inch deeper every time until you have it at least nine inches deep. Try a piece of your old meadow by turning it well over in narrow ridges by ploughing about five or six inches deep, harrow and sow with English grass seeds and then roll it in. The ploughing may be done any time between August and December but the earlier the better. The Grass seed does well to sow on the snow or at any season of the year if it is not accompanied with oats or other grain that would overpower it. Do you yard your cattle in the highway? If so you are losing more than half the benefit you might derive from them. If you must yard them at all give them a ploughed field and plough it often through the summer; by that method you may make at least the depth of a furrow excellent manure for top-dressing an adjoining meadow in the fall.

If you stable your cattle see that they have litter and a sufficiency of vegetable and fossil matter to absorb all the liquid.

By a proper attention to these particulars and a careful application of your manure thus saved, you may soon find that at least a part of your farm is becoming more productive and that your soil has more resources within itself than you were heretofore aware of, and which you may be able annually to develop to your encouragement and profit.

But this neglectful system of farming is not confined altogether to the old farms—most of the new settlers are pursuing the same method. They find that the newly cleared land produces an abundant crop, and they rush on in the forest to clear for their tillage, where the grain grows luxuriantly from the ashes of a good burn, as it is termed, and neglect their stubble grounds in such a manner that the more land they have cleared, the less their farm is frequently valued. The bushes, weeds and moss take possession; the cradle-hills annually rising continue to make the surface more uneven, and the

neglect of timely draining leaves the flat places and hollows mirey in the spring and fall and baked hard through the summer drought and it is not unfrequently the case that it is left to grow up again.

The best method of clearing land is to stump it at first while the tree will act as a lever to tear out its own roots, but as this cannot always be done the sooner it is stumped and well ploughed after taking off the first crop the better it will be for the subsequent crops. If the land is stony let the farmer weigh well in his own mind where he had best make his stone heap, and where a permanent fence will not require being removed, for labor and time are cash to

A FARMER.

Sunbury, August, 1844.

GREEN MANURING, OR THE APPLICATION OF VEGETABLE MATTER IN THE GREEN STATE.—Johnston, in his lectures on the application of Chemistry and Geology, has a very long and able article on the above subject, but as it is too long for insertion entire, we shall endeavour to give the practical results to which the writer arrives, from which the reader will be able to draw such conclusions as cannot fail to be profitable to him, provided he acts up to the advice which those results would impress upon his mind. The results are—

1. That the ploughing in of grass vegetables on the spot where they have grown, may be followed as a method of manuring and enriching all land, where other manures are less abundant. Growing plants bring up from beneath, as far as their roots extend, those substances which are useful to vegetation, and retain them in their leaves and stems. By ploughing in the whole plant, we restore to the surface what had previously sunk to a greater or less depth, and thus make it more fertile than before the green crop was sown.

2. This manuring is performed with the least loss by the use of vegetables in the green state. By allowing them to decay in the open air, there is a loss both of organic and inorganic matter; if they be converted into fermented (farm-yard) manure, there is also a large loss; and the same is the case if they are employed in feeding stock with a view of their conversion into manure. *In no other form can the same crop convey to the soil an equal amount of enriching matter, as in that of green leaves and stems.* Where, the first object, therefore, in the farmer's practice, is so to use his crops as to enrich his land—he will soonest effect it by ploughing them in its green state.

3. Another important result is, that the beneficial action is almost immediate. Green vegetables decompose rapidly, and thus the first crop which follows a green manuring, is benefited and increased by it. But partly for this reason also, the green manuring of grain cropped land—it aided by no other manure—must generally be repeated every second year.

4. It is said that grain crops which succeed a green manuring, are never lain, and that the produce in grain is greater in proportion to the straw, than when manured with fermented dung.

But it is deserving of separate consideration, that green manuring is especially adapted for improving and enriching soils which are poor in vegetable matter. The principles, which living plants draw a part of their sustenance from the air must be admitted, and add to their value as fertilizers. Living plants contain in their substance not only all they have drawn from the soil, but also a great part of what they have drawn from the air. Plough in these living plants, and you necessarily add to the

soil more than was taken from it, in other words, you make it rich in organic matter. Repeat the process with a second crop, and it becomes richer still, and it would be difficult to define the limit beyond which the process could be no further carried. Is there any soil which is beyond the reach of this improving process. Those only are so on which plants refuse to grow at all, or on which they grow so languidly as to extract from the air no more than is restored to it again by the natural decay of the organic matter which the soils already contain.

But for those plants which grow naturally upon the soil, agricultural skill may substitute others, which will increase more rapidly and produce a large quantity of green leaves and stems for the purpose of being buried in the soil. Hence, the selection of particular crops for the purpose of giving manuring—those are obviously the fittest, which, in the given soil and climate, grow most rapidly, or which produce the largest quantities of vegetable matter in the shortest time, and at the smallest cost.

The plants enumerated by Professor Johnston as best adapted to the purposes of green manuring, are—1.—*Spurry*; 2.—*Pulse*; 3.—*The Vetch*; 4.—*Buckwheat*; 5.—*Rape*; 6.—*Rye*; 7.—*Turnips*; 8.—*Borage*; 9.—*Red Clover*; 10.—*Old Grass Swards*.

We have for years endeavoured to impress upon such of our readers as had not the means of obtaining a sufficient quantity of animal and vegetable manures from their stock to manure their fields, how important it was that they should plough in *green crops*, and we are the more pleased to find that our views, so often advanced, are so ably sustained by the opinions and experience of so distinguished a man as Professor Johnston. We have heretofore recommended the Buckwheat should be sowed for the purpose of being ploughed in whenever land was poor, and its owner had not manure at hand to improve it. We recommend buckwheat because of the quickness of its growth, and the largeness of its leaf, enabling it to appropriate to itself a very considerable portion of those nutritive gases which abound in the air, and form large portions of the food of plants.

We defer to no man in our estimate of the great value—the paramount importance—of lime to every soil calculated to produce vegetables; but still we have always thought that all soils require, besides mineral substances, those of vegetable and animal matter also, to make them partake of the highest elements of fertilization. We would not be understood as supposing that one of buckwheat turned in would be equal to a full dressing of rich stable or barn yard-manure—but we do maintain that two crops turned in just as the plant comes into flower, would be equal to very heavy dressing of any putrescent manure which could be applied. And upon the score of cheapness, we know of none where the party has to buy, that can compare with it; and then, when properly and evenly sowed, green manure has this advantage, from the equal distribution of the vegetable matter over the entire field, there is an equality of fertility in all its parts, a thing most desirable, as every practical farmer will readily admit.

In conclusion, let us most respectfully advise all who may have exhausted lands, and who may not have the means of procuring a supply of other putrescent matters, to make arrangements to sow and plough in a crop or two of buckwheat. Should they use lime or ashes in connection with the green *hay*, so much the better, the more prompt and

decided will be its efficacy. Man requireth bread as well as meat, and the earth requires vegetables as well as mineral substances.—*Baltimore American Farmer.*

FOOD OF PLANTS.

The following article from the *New Genesee Farmer*, will strike the intelligent reader, as being entitled not only to be read, but studied. It is written by Dr. Lee, of Buffalo, New York, a gentleman possessing powers and original views upon all subjects connected with science, and who has also, the happy knack of making people understand him.

To understand the process of nature by which certain elements of earth, air, and water are transformed into living plants, and the best method of preparing these elements so as to produce the largest crops at the least expense, are objects worthy of the careful and profound study of every cultivator of the soil.

If we take 100 pounds of ripe hay, oats, wheat, or corn, including the roots, stems, and seed, and burn them in the open air, we shall have only about three per cent. of alkaline earths left, most of which can be dissolved in water. If we burn a pound of candles or a pound of oil, whether animal or vegetable, the whole of these substances, (which are truly the "fat of the land,") will be formed into invisible air and vapour. The atmosphere and water are nature's great storehouse for preserving an exhaustless vegetable food. By respiration, fermentation, and rotting, all organic structures are transformed into gasses and soluble salts. It is from the lime dissolved in the ocean that the oyster elaborates its shell, and the coral insect rears its massive mountains of coral rock. It is mainly from the phosphate of lime held in solution in its mother's milk, taken from her food, that the sucking calf elaborates its solid bone. Without lime to be dissolved in her gastric juices, and taking into her circulating blood, the hen can make no solid shell to her egg. The unnsured infants in the great cities of London and Paris, and fed on arrow root and other food that contains little or no lime, have soft, cartilaginous, rickety bones, simply because neither animals nor plants can make something from nothing.

As a general rule it is strictly, and moreover it is a truth of great practical importance, that a feeble, diseased stem in wheat, liable to rust, &c., and a shrunken berry are owing to some removable defect in the food of the plant. So different are the essential elements of the seed of the plant from those of its straw, that it is practicable to raise wheat that will yield twice as much grain in weight as there is in weight of straw, taking it from the root. That it is also practicable to grow wheat which will give five times as much straw as grain, most farmers know by sad experience.

On page 254 of Transactions of the New York State Agricultural Society, 1842, Gen. Harmon, of Wheatland, states that "in 1803 Pettin Sheffer, Esq., of this town, harvested 40 acres of wheat grown on the Genesee flats, that produced 62½ bushels per acre." What elements did nature provide, and where did she get them for the growth of such a crop? Manifestly they came from the mineral and vegetable matter washed down from the highlands above.—Those elements are just as abundant now as they were in 1803, or at the close of the creation. Having found out within the last forty years, since Mr. Sheffer harvested his famous crop, what these vegetable elements are, and how to combine them under more favor-

able arrangements for the production of cultivated plants that nature has anywhere done, men of science have greatly exceeded the above large product. From nature's crab apple that weighs less than an ounce, science has at last grown fruit weighing twenty times as much, or 2,000 per cent. more than the original.

By the use of charcoal and lime, Mr. Pell, of Goshen, in this State, has harvested this season at the rate of 78 bushels 24 quarts of wheat per acre. The ground was accurately measured by a surveyor's chain, and the grain in a sealed half-bushel, and the statements are all sworn to by two respectable men. I notice this triumph of science with the more pleasure, from the fact that I have long and zealously urged the use of these abundant elements upon the attention of the readers of the papers for which I have written.

It is more than twenty years since I first began to use pulverized charcoal to absorb the gasses given off by decomposed vegetable and animal matter, urine, and the like, to be applied to garden and field crops. Its value in correcting the taint in meat, and purifying rain-water in filtering cisterns, led me to believe that it would be just the thing to absorb the food of plants from the atmosphere, into which so much passes, and hold it about their roots in a condition that neither dew, rain, snow, frost, nor the heat of the sun, would injure it or take it away. To labour hard to save and draw out manure on to one's fields, and then to lose 60 or 80 per cent. of this vegetable food by its solution in water, and washing away to form something like the Genesee flats in the bottom of Lake Erie, I never regarded as very good economy—which by the way, is the soul of good husbandry.

A pint of urine contains ammonia enough to make, with the other necessary elements, 60 pounds of good wheat. Charcoal will absorb this liquid, and render it quite inoffensive to the olfactories of the nose. The direct application of urine to the soil, after the German practice, is bad economy, unless the soil contain a large portion of humus or vegetable mould, for its tenacious retention. It is a better plan to have a reservoir filled with pounded charcoal under the stable floor, or near to the stable, into which the liquid excretions of all animals should be conducted like cider from the press. When nearly, or quite saturated with urine, this coal will be manure of extraordinary power and durability—for nothing in the soil, but the roots of growing plants, will be likely to extract a particle of this vegetable food.

After wheat, corn or grass has taken up all this nourishment, the coal (unlike lime, which has parted with its carbonic acid in the same way) is insoluble in water, and remains, as in a filtering cistern, to absorb and hold, for the benefit of the growing plant, more vegetable food from every rain that falls to the earth. For be it remembered, that dew, rain and snow—the poor man's manure, bring back to the earth all the gaseous elements given off by all the fires, respiration and other decomposition of solid and liquid matter.

For the same reason, coal should be largely used in the formation of compost heaps. And where the farmer has straw which he can use to make beds for his horses and cattle in the stable; this, with a quantity of coal pounded with a flail, can be spread upon the stable floor, to absorb all liquid excretions. All these excrementitious substances should be kept under shelter. Wood ashes, lime, and muck, or vegetable mould, are valuable ingredients in all compost heaps. The coal stratum

should be placed between the lime and manure, and the whole should be covered with turf or more coal.

The analysis of soils abounding in fragments of limestone rocks, shows a marked deficiency of this important element in their composition. The reason of this perhaps unexpected deficiency I will now explain:

Disintegrated limestone is decomposed by the vital action of plants, and its carbonic acid is taken up by their roots. It will then combine with more of this gas which abounds in the air and soil; and will again give it out to growing vegetables. It is this way that plaster, (sulphate of lime,) after it has parted with its oil of vitriol, often produces such wonderful effects, although the amount applied is less than one fourth thousandth parts of the soil from which plants draw their nourishment. The action of the sulphuric acid, as I understand the matter, I will not stop to elucidate. But I wish to fix public attention upon the circumstance, that when lime in the soil has parted with its acid whether sulphate or carbonic, and especially the latter, it is soluble and very liable to be washed out of the soil by rain, &c. All water that has passed through a soil possessing sufficient lime to be good wheat land, is HARD, or holds lime in solution of which it has robbed the soil. The same is true, in a less degree, with regard to leaching of the soil, and its loss of alumina, potash and soda. The cultivation of the earth, without allowing any vegetables to grow upon it, would exhaust its fertility very rapidly.

The remedy for this is, to cultivate less land in grain crops, and cultivate it far better; to remove all excess of water by draining; to plough deep, and to turn up to the sun virgin earth from below, and apply thereon manure, salt, lime, ashes, and salt. Instead of applying large quantities of quick lime at distant periods, it is far better to apply a less quantity and often, to make up for the loss that occurs from its being dissolved in water, and carried with it into rivers and the ocean.

Leached ashes are valuable, when applied to grass lands and are far from being worthless on wheat, rye, oats, and barley—all of which need their silicate of potash, to give them a good firm stem. Grass and wheat know as well how to convey the apparently insoluble elements in leached ashes up into their organic structure, as did the trees from which these ashes were obtained.

FARMING AND GARDENING.—The Editor of the *Massachusetts Ploughman* says, we are sometimes complained of, for publishing so many different opinions on modes of farming and gardening; and are told that it tends to confuse the enquirer after truth, and to leave him as much in the dark as he was at first.

But such is the nature of all free discussion. There are more wrong heads than right ones in every community, but so long as freedom exists, every one is entitled to a hearing, and each hearer must judge for himself.

In regard to transplanting there are different modes and different opinions. It may be that none have yet discovered the very best plan of taking up and re-setting trees, and it is not prudent for any one to be very positive that he alone is right. Many prefer the plan of giving the soil a thorough soaking at the time of setting the tree; and one argument in favour of it is that all the cavities under the trunk will be filled and the tree will stand firmer with less liability to canker and rot than when reliance is placed on adjusting the fresh mould to the roots.

But other skilful orchardists totally object to "flooding the roots with water" or to rendering the earth more moist than it naturally is in May or the last of April. They contend that this is placing the ground in an unnatural state, and though you give a great abundance of moisture at first, you provide no means for securing that abundance, and if you could, you would have your tree in an unnatural element. Apple trees will grow rank, for a time, in wet lands, for such are not what they delight in. They uniformly flourish best on a side hill where there is no chance to flood them at any season.

The famous and ingenious Wm. Cobbett was so averse to wetting roots farther than the soil would wet them, that he would not allow of a drop of water on cabbage plants, on transplanting, even in June or July. He argued that by making a puddle there, you make the earth hard like a cake and prevent the extension of the roots. And to prove this theory he succeeded remarkably in taking a different course.

For our own part we prefer setting trees after the earth has become warm and been drained of a part of its moisture. We object to setting in October, because we do not desire to see the earth bedded down on the roots. And when we set in the spring we chose to leave the earth so light that the roots can extend without obstruction. By putting litter, of almost any kind, on the surface we keep the earth sufficiently moist in most cases, for the action of the roots. If the ground is sandy or gravelly care must be taken to prepare holes and render the texture of the earth suitable to retain a proper degree of moisture. And where artificial watering may be necessary the surface should always be covered with straw or litter, for in such case one pail of water would do more service than three without it; it would not soon evaporate.

We have set a variety and vast number of trees within forty-five years, and we have tried all the modes that looked plausible. Our preference is to set trees—that is those that shed the leaf in autumn, just before the leaf puts out in the spring, place the mould carefully about the roots that no cavity may be left open, cover the surface about the tree with litter to check the evaporation, to keep the earth light, and to support the body of the tree through summer against the attacks of the winds.

Stones may be laid on the litter to make the tree stand firmer, and stones lying on the surface never make soil lie heavy. In this mode no staking is required unless you intend to let the oxen trim the trees when they are allowed to roam every where.

As to cutting off tops for grafting there will be no danger while you confine yourself to small limbs.

POINTS OF A GOOD MILCH COW.—The following may be useful to your correspondent "G," in answer to his inquiries. It is from a report of the Guernsey Agricultural Society. **Points.—1.** Purity of breed and qualities of the dam for yielding rich and yellow butter. **2.** Small head, large and bright eye, small muzzle, small ears, orange-color within. **3** Straight back from the shoulders to the tail, and chest wide. **4** A fine and loose skin, with soft and short hair. **5.** Sides well rounded, flank small between the side and haunch, tail fine. **6.** Fore legs straight and well proportioned, hind legs broad above the knee, fine and clean below; hoofs small; legs should not cross in walking. **7.** Udder large, and the teats large and springing from the four corners of the Udder milk; vein large and well defined.—*Gardner's Chronicle*,

CONVERTING PEAT SOIL INTO MEADOW.—For centuries since the settlement of New England, thousands, we may say hundreds of thousands of acres of bog, swamp, or peat lands, have been unclaimed, receiving annual depositions of fertile matter from the neighboring hills or streams, yet returning nothing to the owner, and considered the most worthless part of the farm. Attempts were indeed made at times to subject some of these places to cultivation, but nine times out of ten the attempt was a complete failure, and the ground was finally surrendered to the dominion of the coarse water bog grasses and the bushes that usually accompany them. More or less such lands are found along the whole sea board of the northern and middle States, and have been as a matter of course, until within a few years, consigned to barrenness as far as any valuable product is concerned.

At last, science came to the aid of the farmer, and taught him the composition of soils, and the best method of remedying their existing defects. It taught him that those spots which had so long been eyesores to lovers of agriculture, could be converted into the most fertile parts of the farm; that when relieved from the souring effects of stagnant water, and prepared by the mixture of other and firmer earths, a new and valuable vegetation would succeed to one that was worthless, and thus the productive capabilities of the country be vastly increased. This process is now yearly going into effect; and the heaviest crops of fine English grasses, roots and grain are now grown on lands that from time immemorial have been quaking bogs, or dangerous quagmires. We have rarely met with a better illustration of these facts, than in the report made by Colonel A. Moore, of Concord, Mass., to the Massachusetts Society for the promotion of agriculture, and who received the premium offered on farms in that State.

The first object of Colonel Moore, on taking possession of his unpromising farm in 1835, was to drain his peat bog meadows, and this he accomplished; but he found the ground did not become solid, that there was a tendency to allow the return of coarse grasses, and attempts to burn the surface, though partially successful, endangered the destruction of the whole peat meadow. In this dilemma he commenced drawing on sandy loam from sand hills that bordered the swampy land. "This answered the purpose. The ground became firm, the grass seeds took, and the yield was altogether beyond my expectations." The process pursued by the Colonel is as follows:—The land is first ditched and drained; the bushes cut off, or if large, pulled up; the soil levelled, and about 400 cart loads of sandy loam spread upon an acre; 20 cart loads of compost manure are added, and mixed up by harrowing. On this, in the month of September, half a bushel of herds grass, and half a bushel of red top grass seed are sown, harrowed again, and the whole rolled smooth with a heavy roller. The Colonel says:—"I have now from 20 to 25 acres which have thus been reclaimed. The success I have had may be judged of by the value of the crops produced. Every year since this land has been reclaimed, whether wet or dry, it has produced on an average not less than three tons of English hay to an acre, which brings the highest price in market. In 1838, at the request of Mr. Colman, the Agricultural Commissioner, I weighed the first crop of hay on one acre of this land, and it weighed 7,610 lbs. About three acres of it during the season, I have no doubt, produced five tons to the acre. It was mowed twice, and the second crop was so large that it was considerably lodged.

One other fact may be stated. A few years ago I built a barn 30 feet by 40, and some of my neighbors laughed at me for it, and said—"it is a good barn, but what are you going to fill it with?" That barn, together with one I have since built, 40 by 80 feet, as well as my others, are now full, and I shall have to build more or stop reclaiming meadows. * * * * I verily believe that the two first crops have, in every instance, repaid the whole cost and expense of reclaiming."

Such are the results obtained by a skilful application of labor, and following out the system of mixing soils as appointed out by nature, and so clearly indispensable to productiveness. What has been done by Colonel Moore, may be done by others, and the annual produce and profits of similarly constituted farms be thus very greatly increased.—*Albany Cultivator.*

COMPOST MANURE.—*Messrs. Editors:*—One half the virtue of our compost heaps will be lost to us, if they are carried abroad on the land before the most perfect decomposition of their component parts is brought about by repeated turnings and careful pulverization. And although this is now admitted by scientific Cultivators, few could yet be found who would be willing to debit the crops with the labor and cost of half a dozen turnings of the same heap, by which, however, there is with me no question, that its value, even in a pecuniary way, would be much enhanced; the mass in the end approaching to the nature of soap-er's ashes, with the smell peculiar to that most impregnating of all dressings. In the journal of the Agricultural and Horticultural Society of Western Australia, while speaking of the most suitable soil for the Orange, it is said,

"The French gardeners recommend as a soil for the Orange, a compost made as follows. To a fresh loam, which contains one-third clay, one-third sand, and one-third vegetable matter, and which has lain a long time in a heap, add an equal bulk of cow-dung; and the following year turn it over twice. The next year mix it with nearly half of its bulk of decomposed horse dung, turn it over twice or thrice, and the winter before using, add a twelfth part of sheep's dung, one twentieth part of pigeon's dung, and one twentieth part of dried ordure." And I add, if then you have not a mass as rich in fertilizing salts as Guano, whether from Peru or Africa, I should be glad to be told.

But an old friend at my elbow exclaims, "Well, but we don't want to grow oranges you know; all this is not necessary for the growth of corn or grain, nor would such crops ever pay the expense of such preparation." To the first part of the objection, I would say, admitted; but to the latter, I observe, I would be quite willing to trust to the test of experiment; and until this is fairly done, I shall not consider that we are competent to judge how far the principle of perfect amalgamation can be practicable carried. The earth which forms the saltpetre beds of the East Indies is lixiviated, and the spent soil is thrown out and turned and spread abroad; and at the end of a certain period it is found to have again imbibed an equal quantity of salt, and is again and again submitted to the same process, *ad infinitum*; and in like manner I have no doubt our compost heaps would be found to grow in richness and virtue, in proportion to the frequency with which they are turned over. And if it be a fact that one load of good stable manure is sufficient to fertilize two or three loads of earth, muck, &c., a quantity of slackened or effete lime being added at the last turning when fermentation

has ceased, I should be curious to learn how the cost and carriage of a load of light horse dung from our cities can be made to pay like it, deposited as it often is, by the way-side for months, "to waste its fragrance on the desert air." Talk of composting not paying expenses! I should despair of reaping any profit from such an opposite course of management, until the earth can be brought to give something for nothing, as a writer somewhere has it. If our friends would call at the neat and elegant nursery establishment of Mr. Hovey, at Cambridge; they would have the satisfaction of witnessing the process of composting in perfection; one thing quite certain, the garden culture, in all its branches, "is the perfection of good husbandry."—*Cor. Boston Cultivator.*

THE GUANO IN GARDENS.—Perhaps it is not generally known that a slight sprinkling of guano is of essential service to leek and onion beds, when fairly braided or above the ground. The experiment was tried last year, and proved eminently successful. In the same garden, during several preceding seasons, the worms and other insects had acquired a mastery that went far to destroy the entire crop; but after, and in consequence of the new application, the dustiest of pot-herbs, at lifting time and after, were found sound and good; in fact, not a few of them are so still. The powdering, however, should be skilfully light, otherwise the effects may prove hurtful rather than beneficial. Of the accuracy of the latter fact, we have ourselves seen instances in the case of flowers, a large portion of which were utterly destroyed from the over use of guano, an article which, in some respects, resemble salt and soot—both excellent antidotes to vermin, but which, if used with too lavish a hand, may render the cure worse than the disease. The practice here recommended, has long been acted on in Peru and in its independencies, not only in gardens, but the open fields, in the case of a great variety of vegetables. When the plant, according to its nature, has reached a certain stage, a slight ring is drawn in the soil around, guano applied for the purpose of absorption and the puncturings covered. There it remains for two, three, or more days, after which the ground is watered; and, if we may believe the testimony of travellers, the effects are truly surprising.—*Dumfries Courier.*

PLoughing.—The experiment of ploughing with the heifer, has not yet been fairly tried among us. It is believed that a team of cows, properly managed, will do all the ordinary work of a small farm, and furnish as much milk as if the animals were not worked. The Maine farmer publishes the result of an experiment in working cows, made by a Mr. Hoyt, of Amesbury, Mass., many years ago. He was a small farmer, cultivating only twenty five acres, from which he derived a support for himself and family. For breaking up and his other heavy operations, he usually obtained a stronger team, but performed the ordinary work on the farm with his two cows. He worked them three hours early in the morning, and three more late in the afternoon, permitting them to rest during the interval, feeding them generously all the while, and milking them three times a day. It was a common remark that they furnished more butter and cheese than any other two cows in town. The experiment deserves a careful trial.—*Worcester, Mass. Agis.*

PLoughING IN STUBBLE.—If stubble is ploughed in, soon after reaping, it will soon rot and become manure; the sooner it is turned, the lighter

will be your land, and the more servicable will be your stubble. On planting in the following spring you will need to plough but once.—*Massachusetts Ploughman.*

HAY MAKING.

We think it best to cut grass for hay, as near as possible to the time when it is in fullest bloom. Of course, if it is cut when most of it is in this state, some may be little past, and some may not have quite reached full bloom. We know there has therefore been some difference of opinion as to the stage grass should be when it is cut, but we believe the experience of the best farmers is in agreement with the position above assumed. Those who are in the habit of cutting herbs, cut them when in this stage, because it is known that they contain at that time the most of that peculiar principle from which they derive their efficacy and value. The saccharine of sugar principle, which constitutes one of the chief sources of nutriment in herbage, is found in the greatest quantity at the period of bloom. It may sometimes be expedient to cut grass before it has reached this state; particularly where it falls down, and is in danger of souring or rotting. When this happens, it should be cut, whatever state it may be in, because if it remains on the ground it will spoil, and the fermentation which takes place, will destroy the roots. Another great advantage in cutting grass before the seed forms is, that the roots are not so much exhausted, and that after growth is much more vigorous.

In some parts of the country, it is the practice to mow the grass and let it lie untouched on the ground, "through sunshine and shower," for several days before it is stacked or put in the barn. It is quite common to begin on Monday and continue to mow till Saturday, when, with hand rakes and horse rakes, all turn in, take it up and stack it; and this is done too, without much regard to the state of the weather at the time it is raked, or to what it may have been after it was cut. The appearance of the animals which are fed on hay thus managed, is evidence enough of its worthlessness.

After grass is cut and partly dried, it ought never to be exposed to dew or wet. The best way is to spread out the mown grass evenly, as soon as the wet has dried off from the spaces between the swathes, and before the dew falls in the evening, rake it and put it in cock. Where the crop is heavy, considerable time will be gained in making, by this plan. If it is only wilted when it is put in cock, it will, in a short time, undergo a sweat, which will much facilitate its making when it is again opened to the sun. Many good farmers believe that it will make more in two days, if it is kept in cock twelve hours, than it will make in three days without being put in cock.

In making clover hay, we are decidedly in favor of not exposing it much to the sun after it is first wilted. We speak from experience, having practised various modes, and we are certain that it may be made with less labor, and that it is of far superior quality when cured in cock, than in any other way. When the swathes are a little wilted, pitch them into cocks—laying it up in such a manner that it will stand the weather, which is easily done by the exercise of a little care. Examine the hay from day to day, to see how the process of curing advances, and when it seems to be so well made, that with what it will dry in handling, it will do to put in the barn or stack, turn over the cocks, loosen up the bottoms a little with a fork, and proceed to load it. Clover hay thus cured, is not likely

to heat in the mow or stack, and from having every leaf and head saved, will be found to be very nutritious and much relished by all animals. In fact we believe that clover hay properly cured, will make more flesh, milk, or butter, than any other hay, pound for pound. The prejudice against clover, has arisen from the bad manner of curing it. Knocked about as it frequently is, wet and dried by turns, it loses its leaves and heads, and becomes little else than a mass of tasteless stems, which no animal will eat.

BUTTER.—*New method of obtaining cream from milk, by G. Carter, of Nottingham Lodge, near Eltham, Kent.*—The process of divesting the milk of its component portion of cream, to an extent hitherto unattainable, has been effected by Mr. Carter, and is thus detailed by that gentleman in a paper presented to the Society of Arts.

A peculiar process of extracting cream from milk, by which a superior richness is produced in the cream, has long been known and practiced in Devonshire; this produce of the dairies of that country being well known to every one by the name of "clotted" or "clouted" cream. As there is no peculiarity in the milk from which this fluid is extracted, it has frequently been a matter of surprise that the process has not been adopted in other parts of the kingdom. A four sided vessel has been formed of zinc plates, twelve inches long, eight inches wide, and six inches deep, with a false bottom at one half the depth. The only communication with the lower apartment, is by the lip, through which it may be filled or emptied. Having first placed at the bottom of the apartment a plate of perforated zinc, the area of which is equal to that of the false bottom, a gallon or given quantity, of milk is poured (immediately when drawn from the cow) into it, and must remain there at least for twelve hours. An equal quantity of boiling water must then be poured into the lower apartment through the lip. It is then permitted to stand 12 hours more, (i. e. twenty four hours altogether,) when the cream will be found perfect, and of such consistence that the whole may be lifted off by the finger and thumb. It is, however, more effectually removed by gently raising the plate of perforated zinc from the bottom, by the ringed handles, without remixing any part of it with the milk below. With this apparatus, I have instituted a series of experiments, and, as a means of twelve successful ones, I obtained the following results:

Four gallons of milk, treated as above, produced in 24 hours, 4½ pints of clotted cream; which, after churning only fifteen minutes, gave 40 ounces of butter. The increase in the cream, therefore, is 12½ per cent, and of butter, upwards of 11 per cent.

The experimental farmer will instantly perceive the advantages accruing from its adoption, and probably his attention to the subject may produce greater results.

CURING BUTTER.—A writer, signing himself "Old Dutchess," says butter should be cured without the aid of water. "The practice I recommend," says he, "from long experience, is as follows:—When the butter comes from the churn, put it in a clean wooden bowl, and with a wooden butter ladle proceed to work it, by breaking it down at the sides and turning off the whey which is separated in the process; at the same time strew on the salt by degrees, so that it becomes intimately incorporated. Continue working it thus until the buttermilk is apparently all worked out. Put it then by in a cold cellar till next morning, by which

time the salt is dissolved, when the ladle is to be again applied, and continued as long as any buttermilk can be separated. The butter is then fit for use or laying down. For preserving, stone-ware jars are preferable, as they impart no taste to the butter, and exclude the air. Pack down the butter without any salt between the layers, and cover with two inches of strong brine, previously boiled, skimmed and suffered to become cold. If a scum should afterwards appear on the brine, which will sometimes happen in damp cellars, renew the pickle. The impurities which rise to the surface while boiling, or are found in the residuum at the bottom, are far greater than any one would suppose who is not in the habit of boiling his brine for meats, butter, &c. Butter thus manufactured and cured, will keep a twelvemonth or more perfectly sweet, and the rich delicacy of flavor imparted to that made in May and June, by the young herbage, will be in a great measure preserved. It is compact, without being too adhesive; cuts with a smooth surface, and shows neither lumps of salt, buttermilk, nor crumbles."—*New York Farmer.*

TO KILL FLIES IN A CHEESE-ROOM OR ELSEWHERE.—Cheese-rooms are frequently kept close and darkened, to keep out the flies, as the dairy maid says. Mr. Livesay asserts that this practice is ruinous to cheese, may be avoided by occasionally boiling a penny worth of quassia chips in a pint of water, sweetening it, and placing it on plates about the room. It will destroy all the flies that taste it. Cheese, he says, being an animal matter, cannot have too much air. I have noticed that those cheeses which have been kept in a large, well aired room have been quite sound; while those kept in a close, ill ventilated room were either faded, or bad in flavor. Though cheese should not be kept in too high a temperament, yet they will bear the summer heat very well, provided they have a constant supply of good air.

AFRICAN GUANO.—We copy the following from the *Commercial Advertiser*, (a Cape paper of May 4:—"By a letter received from Ichaboe, one of the guano islands, near Angra Pegauna dated the 9th of April, it appears that the trade in that commodity is brisk, no less than 37 vessels being at that time loading at one of these islets. They had been for the first time visited by about 20 of the natives, who were in a very wretched condition. The writer states—I have not found the difficulties here half so great as represented, and if my men had the choice of going on shore to work guany, or to remain and scrape ships' sides—the former would be preferred by many. The unpleasant part here is the long time that some have to work for other's vessels, to entitle them to a pit to work from. This is an arrangement amongst the masters of vessels. There are 37 of us here now and there were only 23 when we arrived. There are seven or eight more in Angra Pegauna, which will be down in a day or two, but they must arrive fast to increase upon the present number, as vessels now load much quicker than formerly. The stages are much better secured now, and the same sum which they cost can always be obtained when leaving. There is also some talk about gold dust, or ores containing gold, being found on these islands, and considerable quantities of this material have been shipped by some of the masters of vessels. The guano, is, however, the better material of the two."

CURE FOR THE MANGE IN SWINE.—Give them sulphur in their food, and wash them in soap suds.

COMMON CHARCOAL.—It is stated by Dr. Lee, in an agricultural address delivered in Western New York, that common charcoal is the cheapest, and therefore the best material to apply to cultivated fields for fixing and appropriating to the use of plants the large quantities of ammonia which descend in rain and snow. It will absorb 90 times its bulk of ammonia, and will give it out slowly to the vital attraction of roots of plants. The liberal application of this well known substance to the wheat fields in France, has mainly, in connection with the use of lime, added within the last ten years, 100,000,000 bushels to the annual crop of wheat grown in the kingdom. The charcoal should be sown down in May, at the rate of 75 bushels per acre, well pulverized. It would, undoubtly, be equally useful to other kinds of grain. There are many places where other manures are not easily obtained, but where charcoal is cheap; farmers so situated would find it greatly for their interests to resort to its use.

LIQUID MANURE.

We have stated that the solid matter contained in the urine of man and animals is equal to the best guano as a fertilising agent, and that it contains all the elements that are found in guano, capable of supplying plants with either organic or inorganic food. That such is the case we are prepared to expect, when we reflect that the herbivorous animal derives its sustenance from the plants used by it as food, and that, after those substances which are required in the animal economy are separated and worked up, the remainder is expelled from the body as excrementitious matter—the urine containing the greater portion of the soluble saline and earthy salts, as well as the principle amount of nitrogenous matters—while the solid excrements are principally made up of undigested woody fibre, with a few salts and a little nitrogenous matters. All these salts having originally existed in the plant, but been separated and rearranged during their passage through the animal, they are capable of again entering the texture of the plant, ministering to its growth, and assisting as a means of perfecting its seed. Before such can be the case, however, the substances must be in a state of perfect solution in water, the roots of plants being incapable of receiving into their texture any solid matter, however minutely divided. Hence the cause of the rapid and marked benefit following the application of soluble saline manures, such as the nitrates of potash and soda; or mixed manures containing soluble salts in combination with substances which must undergo decomposition before they become soluble, and capable of ministering to the growth of plants. This fact should always be borne in mind, that no substance can enter the texture of a plant except in solution. From the above circumstances it necessarily follows that the liquid portion of the excrements must be of more value as a manure to plants than the solid portion, since the liquid excrements contain by far the largest portion of saline and nitrogenous matters, and in the only state in which they can be serviceable to plants. The composition of the urine of the cow will serve as an example to illustrate this point; at once showing the large amount of potash, soda, ammonia, phosphates, and other saline ingredients lost to the farmer who allows the urine of his cattle to run into the nearest ditch, or by finding its way into his horse pond, to become the disgusting beverage of his farm-yard stock.

The following is the composition of the urine of

the cow, as given by Sprengel, and examined under three circumstances, viz., when fresh—after it has undergone putrefaction—and when allowed to putrefy with the addition of its own bulk of water.

		Fresh.	Putrid.	Putrefied with Water.
Urea	-	4000	1000	600
Albumen	-	10	—	—
Mucus	-	190	40	30
Benzoic Acid	-	90	250	120
Lactic acid	-	516	500	500
Carbomie acid	-	256	165	1533
Ammonia	-	205	497	1622
Potash	-	664	664	664
Soda	-	554	514	554
Silica	-	36	5	8
Ammium	-	2	—	—
Oxide of Iron	-	4	1	—
Oxide of magnese	-	1	—	—
Lime	-	65	2	3
Magnesia	-	36	22	30
Chlorine	-	272	272	272
Sulphuric acid	-	403	388	342
Phosphoric acid	-	70	26	46
Acetic acid	-	—	1	20
Sulphurated hydrogen	-	—	1	30
Insoluble earthy phosphates and carbonates	-	—	180	150
Water	-	92,624	95,442	95,481
		100,000	100,000	100,000

By far the largest portion of the organic constituents contained in the solid matter of the urine is the urea, and this also is the most important, since it contains a larger amount of nitrogen than flesh or blood,—two powerful manures. It is composed of

Oxygen	-	-	26.7
Hydrogen	-	-	6.6
Carbon	-	-	20.0
Nitrogen	-	-	46.7
			100.0

When in a state of purity, the urea exist as transparent colourless crystals of a slightly pearly lustre. It deliquesces in a moist atmosphere, but otherwise undergoes no change. Its solution in water may be exposed to the atmosphere for several months, or be heated to the boiling point without change; but when the other constituents of urine are present, it putrefies with rapidity, being almost entirely resolved into carbonate of ammonia; this change proceeds at a more or less rapid rate, depending on the temperature of the atmosphere. The carbonate of ammonia thus formed is partly held in solution in the water of the urine, and partly escapes into the air; this escape of ammonia continuing for a considerable time, the solution becoming gradually weaker and weaker until at last a very small portion of the original quantity is left. The ammonia thus generated by the decomposing urea of the urine is sensibly felt on the eyes and nose on entering a stable in the morning that has been closed during the night, and is frequently the cause of those inflammatory affections of the eyes which young horses are subject to, from its acting as a direct and constant irritant on the delicate conjunctival membrane of the eye.

When the urine is diluted with an equal bulk of water before it is allowed to putrefy, a much larger quantity of ammonia is retained in solution; thus, on referring to the analysis, we find that when the urine is allowed to putrefy alone, only 487 lbs. of ammonia are found in 100,000 of urine; but when diluted with an equal bulk of water previous to fermentation, the amount of ammonia is found to be 1622 pounds, or upwards of three times the quantity contained in the undiluted urine; but even this is not the whole quantity of ammonia capable of being yielded by the urea, by one-fourth;

since 100 parts of urea ought to yield, by their decomposition, 562 parts of ammonia.

It is to the ammonia generated in the soil by the slow decomposition of all animal manures that much of their effects on crops are to be ascribed. This is particularly the case with good guano, which contains so large a portion of those substances capable of yielding ammonia to the growing crops; yet how little attention is bestowed by the practical man on the urea, which, as urine finds its way out of his fold-yard, in solution in water, to the nearest ditch, and often to his horse pond; or takes to itself wings after fermentation, in the shape of ammonia, and, unseen and unheeded, passes off into the atmosphere; and thus the means of realising hundreds of pounds, which in many instances can be but ill-spared, is totally lost to the farmer.

THE HORSE—ITS MANAGEMENT.—Of gross and direct cruelty to your animals, I have no fears of your being guilty; but there are other cruelties which may pass under the milder name of neglect, against which I would warn you earnestly. For that man stands low in my estimation, who is careless of the comfort of his cattle, and especially of his companion and servant—the horse. I trust you will adopt the rule which I have endeavoured to follow, as your maxim: I will treat my horse as I think I would like to be treated were I in his place! Allow me to drop you a few hints which may contribute to your accomplishment of this benevolent purpose.

When you purchase a horse, endeavour to find out how and upon what he has been kept—how he has been fed and otherwise managed. This it is important to ascertain, for you cannot make any sudden changes in the mode of management without discomfort to the animal and risk of injury. If a horse has been grained higher than you mean to, you must reduce the quantity of grain very gradually, and not, by any means, all at once. Again, when you take your horse from grass in the autumn, they should not have totally dry diet all at once, but should be gradually accustomed to it by giving them roots and mashes with their hay. Begin likewise with a small quantity of oats, and gradually increase the quantity until you arrive at their wonted or intended allowance.

Feed your animals, your horses especially, as regularly as you feed yourself. Have certain hours of feeding, and do not deviate from these. Your horse, as well as yourself, will not feel so comfortable if feeding is postponed long after the usual hour.

Make no sudden changes, as I have said, in the quantity and quality of your horse's food, but at the same time accommodate the food to the exercise and fatigue which the horse has to undergo. Even if there is a rather sudden change in this respect, you change as to the quantity and quality of the food should be gradually accomplished. I am convinced, from errors and injudicious management in this respect, many diseases are entailed upon the horse.

All grain would prove more nutritive, if ground or chopped up. Some horses, however, chew up their oats much better than others. A good substitute for grinding the grain when that is inconvenient, is to mix with the grain a quantity of finely chopped straw. If the straw is coarsely chopped, you may probably find, as I have done, that your horse can pick up all the oats and yet leave a very considerable portion of the straw.

Let your horse be driven rather slow at starting,

especially if just newly fed or watered. Increase his speed by degrees; and if warm, when within a mile or two of his journey's end slacken his pace and let him cool down some what before being stabled.

CURE FOR A FOUNDERED HORSE.—I send you the following prescription, of which you may give a place in your useful paper if you think it will be of any advantage to farmers and travellers:—

As soon as your horse is foundered, bleed him in the neck in proportion to the greatness of the founder. In extreme cases you may bleed him as long as he can stand up. Then draw his head up, as common in drenching, and with a spoon put far back on his tongue strong salt until you get him to swallow one pint. Be careful not to let him drink too much.—Then anoint round the edges of his hoofs with spirits of turpentine, and your horse will be well in one hour. A founder pervades every part of the system of a horse. The phlegm arrests it from the stomach and bowels; and the spirit arrests it from the feet and limbs.

I once rode a hired horse ninety miles in two days returning him at night the second day, and his owner would not have known he was foundered, if I had not told him and his founder was one of the deepest kinds.

I once, in a travel of 700 miles, foundered my horse three times, and I did not think my journey was retarded more than one day by the misfortune, having in all cases observed and practiced the above prescription. I have known a foundered horse turned in at night on green feed, in the morning he would be well, having been purged by the green feed. All founders must be attended to immediately.

HEAVES IN HORSES.—Moistening the hay or grain for horses which have the heaves, has a good effect. We see a communication on this subject in the Wilkesbarre (Pa.) Advocate. The writer says he had a favourite horse which was much affected by this disorder. He happened to have a common horse-pail about half full of white-wash. He filled the bucket with water, and left it to settle. He moistened with this water two quarts of corn-meal, morning and evening, which he gave the horse—filling up the bucket with water occasionally. In less than a week, a change for the better was manifest in the horse, and about two years after, he sold him as perfectly sound.

CUTTING GRAIN.—The American Agriculturist says, that when the berry of grain of any kind has well filled and just begun to glaze, so that passing the end of the thumbnail over it leaves a slight indenture, is the best time for cutting. A friend in Massachusetts informs us that he made this his test in cutting his rye last year, and that the flour made from it was whiter and sweeter than any he had ever harvested before, there was more of it also per bushel, and less bran. This looks reasonable; for it is asserted that after this stage, of the filling of the berry, longer standing only tends to change the flour into a thicker rind of the grain, and consequently forms more bran. In the case of our friend's rye flour above, he observed that it was nearer wheat than any he had ever tasted. Two others important considerations in cutting early force themselves upon us. 1st. We have more time for harvest, and we are more forward with our work. 2d. The grain shells scarcely at all, there is consequently little or no loss from this source. 3d. Since the introduction of machines for cutting into general use for

fodder, and the straw saved by early cutting proves greatly more nutritive and palatable to the stock than that cut late. Wherefore we earnestly entreat our farmers to pay greater attention to the early cutting of their grain than they have heretofore been in the habit of doing.

SHEEP TICK—*Acarus Reduvius*.—To destroy this troublesome and injurious animal, that infests so many of the flocks of sheep in all countries, some writers have recommended a wash made of

Arsenic finely pounded, one pound,
Potash, 12 ounces,
Common soap, 6 ounces,
Rain or river water, 30 gallons.

The ingredients to be boiled together for fifteen minutes, and the liquid, in dry weather, applied by pouring through the spout of a tea-pot or similar vessel, on the wool, which is rubbed at the time to facilitate the absorption or passage of the fluid through it. This dressing applied twice a year is also security against the attacks of the fly, which by depositing their eggs on the skin produce worms and sores, often very troublesome.

We have never found it necessary to resort to such applications to clear our sheep from ticks, and have at shearing scarcely found one for years. The flock is a small one, varying from one hundred to one hundred and fifty, yet the means to which this exception is attributed would be equally applicable to larger flocks. We have for a long time been in the habit of using common soap pretty liberally at the washing of the sheep, and to this we think the absence of the tick is to be credited. A large tub is used for washing, into which a small stream from a brook is conducted, and the time is chosen after a heavy spring rain, that the water may be as soft as possible. The sheep is put into the tub and a handful of soap is rubbed into the wool of the neck and back of each one put in. The grease, scum, and filth floats over the top, and as the stream flowing is not large, the water in which the animal floats soon becomes a strong suds, cleansing the wool most thoroughly, and proving fatal to any vermin that may be about the sheep. The wool of sheep washed in this way will be very white and clean, but they should be allowed to lay in a clean grass pasture for a week or ten days, that the fleece may become again saturated with the animal oil so essential to softness and flexibility.

Wool washed in this way will be free from ticks, and though it may not weigh quite so much as if one-half of the dirt was left in it, yet its superior appearance and quality, will secure a compensating price. If there are ticks in a flock it is best to wash or wet the lambs also, or the work will be but half done.

AGE OF SHEEP.—The age of sheep may be known by examining the front teeth. They are eight in number, and appear during the first year of a small size. In the second year the two middle ones fall out, and their place is supplied by two new teeth, which are easily distinguished by being of larger size. In the third year, two other small teeth, one from each side, drop out, and are replaced by two larger ones; so that there are four large teeth in the middle, and two pointed ones at each side. In the fourth year the large teeth are six in number, and only two small ones remain, one at each end of the range. In the fifth year the remaining small teeth are lost, and the whole front teeth are larger. In the sixth year the whole begin to be worn; and in the seventh, sometimes

sooner, some fall out or are broken.—*Mountain Shepherd's Manual*.

WASTEFUL MANAGEMENT OF MANURE.

Some idea of this may be gained by analogy. Let us imagine that a farmer keeps three teams of horses, who consume, say two quarters of Oats per week. Let the farmer give one quarter each week to the horses, and dispose of the other quarter as follows:—There may possibly be some ruts in the road leading to and from his farm yard; let him pour as many as possible of the oats into every one of the horseholes and ruts of this road, beginning at the gate of the yard and proceeding to the nearest turnpike-road. There may seem much trouble in all this, but nothing valuable can ever be gained or done without trouble, and this experience will probably always be conclusive. Some farm-yards are nicely drained, and very frequently the drains run into the horse-pond. Let the farmer insist on one of his laborers (who may possibly have some prejudice against it) pouring a good drill of oats into every drain that leads out of the yard till it arrives at the pond, where he may throw in a bushel or so, and if the drain terminates, as drains sometimes do, on a hard road, let him leave a small heap of oats in every black puddle. When he shall have done this, let him cause some of the oats to be scattered in every direction round his stable, and take every possible precaution so that the birds of the air, the mice and rats of the field, the fishes of the ponds, and the creeping things of the earth, may come in for a share of the oats. The farmer's neighbors may call him mad, but let him not mind this. Ulysses was formerly called mad for sowing salt, but now, many people sow salt who are considered sensible, and even clever. Let the enterprising improver keep perseveringly on with this practice for—say three weeks. On or about this period, the ribs of each of his three teams, when in single harness will probably form a very respectable representation of park paling. At this point it is time to pause, and seriously ask himself the question, whether it is wise for a man actually to facilitate the waste and destruction of produce which it cost him much money to gain, and the economical management of which will produce more money. That which we have imagined it probable for a farmer to do with his horse-food is not a bit more unwise than the practice of some slovenly farmers with respect to their manures. What oats are to his horses, manure, and especially the liquid and gaseous portions of Manure, are to his fields. Every atom of earth which comes into contact with his dung, preserves for it some of its fertilising virtues, yet he keeps it for a year uncovered with mould. Every breath of air that passes over it becomes the vehicle for carrying the volatile gasses, in which plants delight, from the farmer's dung yard to every body else's field; yet he keeps it for a year uncovered with mould. Every drop of rain which falls from the heavens dissolves some of its most valuable portions, and conveys it away to loss; yet the good man never thinks of sinking a tank, in order to preserve a substance every pound of which, Leibig tells us, will suffice to grow a pound of wheat. Nothing can show more clearly than this national waste, the necessity of men being made acquainted with the laws of nature, which can never be transgressed with impunity; which combine to ruin every man that regards them not;—whilst there is not one law amongst them which, if understood, may not be made the ready and willing instrument of his will.

Remedy for the Bots.—Having seen many horses die with bots, and many remedies given without effect, I was induced by a merchant in Cambridge, to try the following for a horse of my own, after I had tried most of the remedies in common use without effect, and had given him up for lost:—Half-pint vinegar, half-pint soft soap, half-pint gin, and half-pint molasses, well shaken together, and poured down while foaming. To my great surprise the horse was in five minutes wholly free from pain, and ate freely. The next morning I was on my journey. I have since recommended and given the same in perhaps fifty cases with the same good effect; not in one instance has it failed to effect a perfect cure.

Another.—To make the bots let go their hold, give the patient a quart of molasses or dissolved sugar, with a quart of sweet milk. In half an hour you will find him at ease. Then pulverise two ounces of alum; dissolve in a quart of warm water and give as a drench. In two hours or less, administer one pound of salts, and you will effect a cure. I have never known this remedy to fail.

Garlic a preventive against Rats and Mice in Grain Stacks.—A farmer in this neighbourhood has, for some time past, put garlic in the bottom of his grain stacks, and since he has adopted that plan, has never been troubled with vermin. Before adopting this plan, on taking down a stack of grain the assistants never killed less than from fifteen to twenty rats, and above a hundred mice. This is a very simple, cheap and effectual method of preserving grain in stacks.

Worms on Cabbage.—These pests of the garden may be destroyed by taking off one of the large lower leaves of the cabbage, about sundown, and laying it on the top of the plant, backside down. Take it off early in the morning, and the whole or a large part of the worms of that cabbage will be on it, and may be destroyed at pleasure.

To save Oats in feeding Horses.—Bruise or crush your oats in a mill, or otherwise, as convenient, and your horse will become fatter on half his usual allowance than on double the quantity unprepared. If you cannot bruise the oats, pour hot water on them and let them soak for a few hours.

Cure for Burns.—After opening the vesicles, if they are formed, dip the part in cold water, and then plunge, still wet, into flour, keeping it there for a minute or two, by this means a certain quantity adheres to the part and prevents the access of the air. It is remarkable that the flour falls in scales from the surrounding parts the next day, whilst on the burn it remains adherent.—*Medical Times.*

Cultivation of Onions by the Tartars.—Instead of raising them from seed, in which they do not succeed, or which appears to them too long a process, they dry and smoke in a chimney those which they wish to propagate, and in the spring when the time to plant them is arrived, they cut them diagonally into quarters, but so as not to separate the pieces entirely one from another. They set these onions in rows, when thus prepared, in good soil, well dug, but not freshly manured, at about ten inches from each other, and two inches deep. These onions increase extraordinarily, and grow large and strong.

Cement to Mend China or Glass.—Garlic stamped in a stone mortar; the juice whereof, when applied to the pieces to be joined together, is the finest and strongest cement for that purpose, and will leave little or no mark if done with care.

Pickling.—General directions.—Brass should be used for vessels in the process; thoroughly cleansed before using, and no vinegar allowed to cool in them. This precaution is necessary to prevent the formation of verdigris, an active poison. Boil alum and salt in the vinegar, in the proportion of half a tea cup of salt, and a spoonful of alum to three gallons of vinegar. Vessels that have any grease about them will not do for pickles. Stone and wood are the only proper materials in which to keep pickles when made. All pickles should be stirred up occasionally. When any scum rises, the vinegar needs scalding. Pickles may be spiced or not at pleasure; and when the vinegar becomes weak from use, it may be thrown away and fresh vinegar substituted. Good, but not the sharpest vinegar, is the best for pickles.

To save Cucumber, Squash and Melon Beds from the Yellow Bug.—For each hill cut say a dozen alder sticks about a foot long, split one end and insert a tuft of sheep's wool, finely spread out. Set these out around the hill so that the wool from one will just meet that of its next neighbor on the circle. The bugs will always alight on that before descending to the ground and the plant; the wool entangles their legs, and then they are unable to go further.

To preserve Eggs.—Put a layer of salt into a jar, and stick the eggs into the salt, *point downwards*, till a layer of eggs is made, when more salt is put in, and again a layer of eggs, and so on successively till the jar is full.

Weak Eyes.—Wash the eyes frequently in cold water if they are in the least inclined to weakness. Make a wash by pouring water over a jar full of rose leaves; let it stand all night, and then strain the water. It will be found excellent for the eyes, and should be used frequently. A poultice made of rose leaves is good for a stye upon the eye-lids. If the eyes are very weak, boil a handful of freshly gathered salad in a pint of water, strain it and apply the liquor to the eyes at intervals. It will be found very soothing. A poultice of boiled salad leaves will also relieve severe pain in the eyes.

Fattening Fowls with Potatoes.—There is a great profit in feeding geese, turkeys, and fowls of every sort with potatoes and meal mixed. They will fatten in nearly one-half the time that they will on any kind of corn, or even meal itself. The potatoe must be bruised fine while hot, and the meal added when the mash is given to them.

To wash Woolen Goods.—All descriptions of woollen goods should be washed in very hot water with soap, and as soon as the article is cleansed immerse it in cold water, let it then be wrung out and hung up to dry.

Beet Pies.—Pies made of red sugar beet are said to be delicious—somewhat resembling rhubarb pie in flavor, though more rich and substantial. It is seasoned with vinegar, sugar and spices, to suit the palate. The root may be used without boiling, being chopped fine. Prepare the crust and bake as you would a green apple pie.

Butter.—A French writer says that to procure butter of an exquisite flavor and extreme delicacy, after washing it till the water runs quite clear, you must wash it in new milk.—The cream of the new milk becomes incorporated with the butter and communicates to it sweetness and delicacy.

Drop Cakes.—One quart of milk, a large tea-spoonful of saleratus, dissolved in a cup of cream; to which stir in flour very smoothly until a thick batter is formed. Then dip your spoon in milk and with it place your batter at short distances in a buttered pan. Very delicate—made entirely of cream, either with or without eggs.

WEEDS.—War, uncompromising and constant, should be waged by every farmer against these insidious and troublesome pests. Down with them, or up with them—if you don't they will exhaust your soil more than your crop.—and what is worse, if you give them the privilege of seeding, they will infest your land the second year twice as thick as they did the first. “One year's seeding, makes seven years weeding,” is an adage which many a farmer has found true to his cost. But if attacked in season, and kept down at any rate, they are shorn of half their terrors.

What looks more ungainly—what is a stronger indication of a slovenly and thrifless farmer to a traveller in the road, than to behold among the crops in the fields, huge, towering weeds, usurping the place of useful plants, thriving at the expense and exhausting the life-blood of the valuable grain, or whatever may be the crop into whose company they have intruded themselves.

No man who sets any value upon his reputation as a farmer, or who looks well to his interests, will permit weeds to encumber his ground, when, by the exercise of well expended labour, he can get rid of their unwelcome presence.

A weed is as loathsome to us among a promising crop, as a skunk would be in our green house. They are hateful because both useless and injurious—and the man who permits them to flourish in his cultivated grounds, without vigorous efforts to extirpate them, is not deserving the name of a good husband nor a good neighbour. No man has a right to keep a nuisance on his premises to the annoyance and injury of his neighbour—and weeds, if suffered to seed, have this effect. “War to the knife, and the knife to the hilt,” is the spirit which should actuate every farmer in the treatment of weeds. It is a *christian* warfare to fight them as common enemies to mankind, and show them no quarter. Though it costs considerable to keep them down, it costs more to let them grow.—*V. E. Farmer.*

MANURE OF FOWLS.—We regret to see so little attention paid to the saving of pigeon and hen-dung. The manure of any kind of bird is extremely valuable for growing melons, or indeed vine crops of any kind. Cucumbers, squashes, pumpkins, and especially melons, grown with hen or pigeon dung, are said to be sweeter and more delicate than those from any other manure whatever.—*American Agriculturist.*

YEAST.—Boil one ounce of hops in four quarts of water until the hops fall to the bottom of the pan; strain, and when milk-warm, add six ounces of flour and five of sugar; set the mixture by the fire, stirring it frequently, in 48 hours, add four pounds of potatoes, boiled and minced fine: next day bottle the yeast—it will keep a month. One fourth of yeast and three of warm water is the proportion for baking.—^{“”} [The editor of the *Gardner's Chronicle* states that he has tried this recipe and found it good.]

TO REMOVE GREASE SPOTS.—We copied into a Farmer a short time since, from one of our exchange paper, a recipe for removing Grease spots from cloth, by applying the yolk of an egg, and washing afterwards with warm water. This has since been tested in our own family, and found completely successful. “Keep it before the people.”—Few are so fortunate in keeping themselves “unspotted from the world,” as not to soil their garments with grease.—*V. E. Farmer.*

CHARLOTTE COUNTY.

The AGRICULTURAL SOCIETY will hold a Show and Fair, at the farm of John McDouall, Parish of St. Andrews on Saturday the 21st day of October next, at 11 o'clock, where the following Premiums will be offered for Competition, viz:

For the best entire Horse that has stood in the County the past season,	£2	0	0
second ditto, do.	1	0	0
best blood Mare,	1	10	0
2d do. “ “	1	0	0
3d do. “ “	0	15	0
For the best Bull not over 4 years old,	2	0	0
second best, do. do.,	1	10	0
third “ do. do.,	1	0	0
“ the best milch Cow, do.	1	0	0
second do. do.	0	15	0
third “ do. do.	0	10	0
For the best pair of Steers under 4 years old,	1	0	0
second do. do.	0	15	0
third do. do.	0	10	0
For the best Heifer under 3 years old,	1	0	0
second do. do.	0	15	0
third do. do.	0	10	0
For the best Ram not over 4 years old,	1	0	0
second do. do.	0	15	0
third do. do.	0	10	0
For the best Ewe.	0	15	0
second do.	0	10	0
third do.	0	7	6
For the best Boar,	1	0	0
second do.	0	15	0
third do.	0	10	0
For the best Sow,	0	15	0
second do.	0	10	0
third do.	0	7	6

GRAIN.

For the best sample of not less than five bushels of Wheat,	0	15	0
second best do. do.	0	12	6
third “ do. do.	0	10	0
For the best sample of not less than five bushels of Oats,	0	10	0
second do.	0	7	6
third do.	0	5	0
For the best sample of not less than five bushels of Barley,	0	12	6
second do.	0	10	0
third do.	0	7	6
For the best firkins of BUTTER not less than 40lbs.,	0	15	0
2d. do. do.	0	10	0
For the best sample of CHEESE not less than 50lbs.,	0	15	0
2d. do. do.	0	10	0

HOMESPUN CLOTH.

For the best sample dyed Woolen Cloth not less than 15 yards,	0	15	0
second do. do.	0	10	0
third do. do.	0	7	6
For the best sample of Flannell, (all wool)	0	15	0
15 yards,	0	10	0
second do. do.	0	7	6
For the best sample of Cotton and Wool Cloth not less than 15 yards,	0	15	0
second do. do.	0	10	0
third do. do.	0	7	6

The whole of the above must be the growth, produce, or manufacture of this County;—(no one person to receive two premiums on any two animals of the same description,) and intending competitors must notify (free of postage) at least 10 days previous to the Fair, of the animals or produce that he intends to offer for competition, and all persons not paid up Members of the Society to the last annual Meeting, must pay an entrance fee of 5s. or not compete; and no animal, or any article of produce, or manufacture, will receive a Premium, unless thought worthy of such preference by the respective Committees to be appointed for that purpose. It is further ordered that all animals, articles, or produce or manufacture offered for competition, shall be on the ground by 11 o'clock, or they will not be attended to,

By order of the Board.

D. MORRISON, Sec'y.

St. Andrews, July 13th 1841.

NEW CHEAP SHOE STORE.



THE Subscriber most respectfully informs his friends and the public generally that he has taken the Shop next above Mr. Harvey Garelon's Store, where he intends carrying on the business of Boot, Shoe Making and Leather Cutting, and flatters himself that by a strict attention to business, he will receive a share of the public patronage.

BOOTS and SHOES of the best description constantly on hand, at the very lowest prices possible, and any deficiency in the workmanship will be made good free of expense. Gentlemen's Dress BOOTS, Walking SHOES and PUMPS, made to order at the shortest notice.

Sole Leather, Upper Leather, and Calf skin, of the very best quality, either wholesale or cut in any quantity, and will be sold as low as can be bought in town. Green Hides, do. Calf skins will be taken in exchange.

[UP] The Subscriber can assure those who favour him with their custom, that for neatness and durability, his work will not be surpassed by any in the Province.

GEORGE COULTHARD.

Fredericton, May 29, 1814.

FIRE! FIRE!!

F. W. HATHEWAY, Agent for the PROTECTION INSURANCE COMPANY, continues to Insure Property of all descriptions against Loss or Damage by Fire, at very low rates, so that parties for a very small sum may keep their property safe, which, in case of any accident, would prove of great importance to them and the amount of Premium would never be missed should they be fortunate enough to escape the devouring element. Personal attendance to survey free of expense to applicants within the limits of the Town. Applicants from the Country must describe the Property wished to be insured, and must always be bound by the description they give

Fredericton, 17th November, 1813.

BOOTS AND SHOES
FOR COUNTRY WEAR.

THE Subscriber has just received a large lot of Men's, Women's, Girl's, Boy's, and Children's strong BOOTS and SHOES, suitable for Country wear, for sale at very low prices for Cash, at

FOSTER'S Cheap Shoe Store,
Queen Street.

Fredericton, June 11, 1814.

FLOUR, MEAL, & CORN.

Just received ex Barque Margaret from Philadelphia :

400 BARRELS Rye FLOUR ;
5000 Bushels Yellow CORN.

Constantly receiving from the Botsford Mills.

Superfine, Fine, and middlings Wheat FLOUR, in Barrels and Bags ;

Fresh ground CORN MEAL, in ditto, ditto ;

HORSE FEED & BRAN.

[UP] For sale at lowest rates.

J. & R. REED.

Saint John, July 22, 1814.

WHEAT & RYE FLOUR, CORN
MEAL, &c.

THE Subscriber offers for sale, Superfine and Fine FLOUR, Rye Flour and Corn Meal, all fresh and a good article; English and American SCYTHES, SNEATHS, and RAKES, STONES and RIFLES.—Low for cash at No. 4, North side King street.

JOHN T. SMITH.

Saint John, July 18th, 1814.

WINDOW GLASS.

THE Subscriber offers for sale 3000 feet of Window GLASS of various sizes, from 7x9, to 14x20, in any quantity from a single square and upwards, at as low rates as can be found in the City, with a general assortment of Provisions, Groceries, &c. Persons wishing good articles at low prices will please call at No. 4, North Side of King Street.

JOHN T. SMITH.

Saint John, July 8, 1814.

FREDERICTON HOTEL.

Corner of Regent and Brunswick Streets,
near the Artillery Park.

THE Subscriber begs to intormate to his friends and the public that the above ESTABLISHMENT is now open for the reception of Visitors, and he flatters himself that from his long experience in the Business, together with the additional accommodation which he can now afford; he will be able to accomodate visitors to Fredericton in a style inferior to none in the Province. The House has been built and fitted up for the purpose of an Hotel. The out-door establishment is extensive, and when completed, will be superior to any in New Brunswick. A Coach will be in attendance to convey those who patronise the FREDERICTON HOTEL, from and to the Steam Boat landing, for which no additional charge will be made. Charges at this Establishment will be found as moderate as any other in the country for the like accomodation.

WILLIAM SEGER.

Fredericton, May 22, 1814.

FOR SALE.

A Valuable Property in Queen Street, (near the Subscriber's store,) on which is a good Dwelling House and a neat STORE, all nearly new, formerly owned and now occupied by Mr. W. S. Estey. For further particulars apply to

W. J. BEDELL.

Fredericton, April 24, 1814.

BOOTS AND SHOES.
CHEAP FOR CASH.

THE Public are informed that the Subscriber carries on the business of BOOT AND SHOE Making at his Establishment in King Street, where he will be happy to receive orders.

Gentlemen's fine DRESS and WALKING BOOTS, made of the best material, and by first-rate workmen, for Twenty Seven Shillings and Six Pence.

Ladies' Shoes from Five to Ten Shillings.

STRONG Boors and STORES at proportionate prices.

[UP] Business punctually attended to.

WILLIAM F. BARKER.

Fredericton, July 21, 1814.

Tanning, Currying, and Leather Cutting, also carried on by the Subscriber, on reasonable terms.

JUST RECEIVED

By recent arrivals and for Sale by the Subscriber,
At No. 20, South Wharf, St. John,

TONS LOGWOOD;

25 Boxes patent Wheel Heads ;

50 Dozen Corn Brooms, (American.)

20 do. Whisks ;

8,000 feet 8 x 10, and 10 x 12 Glass ;

200 sides of sole LEATHER ;

6 dozen Calf skins ;

4 do. Kip do. ;

200 Heavy Hides, (dry salted.)

1 bale Native ditto. ;

200 barrels Rye FLOUR, Corn MEAL, and Wheat

FLOUR ;

80 quintals COD and POLLOCK.

ALSO IN STORE—

Teas, Tobacco, Pork, Nails, Pails and Brooms, (domestic.)

COLIN J. CROSS.

St. John August 1, 1814.

FLOUR.

Constantly on hand from the Botsford Mills,
SUPERFINE Flour, of an extra quality—warranted
superior for Bakers or Family use. Fine and Mid-
lings Flour, Horse Feed and Bran—for sale low by
J. & R. REED.

Saint John, May 30, 1814.

MONEY WANTED.

UNQUESTIONABLE Security will be given on Real
Estate, to double the amount of money required,
for a few hundred pounds.—Particulars made known on
application at the Head Quarters Office.

August 15, 1814.

Saint John Agricultural Society.

NOTICE is hereby given, that this society offer for competition the following Premiums, which will be awarded at a Fair, to be held at the city of Saint John, on day in September or October next, to be hereafter named:—

For the best entire Horse, between three and six years of age, fit for farming purposes, owned in the County, and to remain therein for the next season, £5 0

For the best three year old Bull, 3 0

" " Two year old, do. 2 0

" " Two year old Heifer, 1 0

" " Calf, 0 10

" " Ram, 1 0

" " Ram Lamb, 0 10

" " Ewe Lamb, 0 10

" " Boar, 0 15

" " Sow, 0 15

" " Spring Pig, 0 10

All the above animals, (except the horse,) must have been bred and owned in the County.

For the best pair of Geese, alive, £0 5

For the best pair of Ducks, do. 0 3

For the best pair of Turkeys, do. 0 5

For the best pair of fowls, cock & hen, 0 3

For the best cheese, made in the county, 0 10

For the best tub of butter made in the county, not less than 40lb. weight, 1 0

Second best ditto, 0 10

For the best 10lbs. of roll butter, made in the county, 0 5

It is to be understood, that the Society reserve the right of withholding the Premium, in cases where there is no opposition and the animals or articles exhibited are not of superior character.

By order of the Committee,
M. H. PERLEY, Secretary.
Saint John, June 1, 1844.

LAND FOR SALE.

A Lot of 100 Acres of LAND, in the Salmon River Settlement, in the County of Carleton, being Lot No. 133, on the west side of the River St. John, bounded on the lower side by John Watson, said Lot granted to Smith.

A Lot of 300 acres Wilderness Land, granted to John S. Brown, in a grant to Zackariah Brown and others, in the rear of Messrs. Clows and Everett in Maugerville.

Lots No. 20 & 21, granted to John Riley near Skin Creek, Oromocto, in a grant to Charles Smith and others.

A grant of 700 acres, situate in the Green Settlements, County of Carleton. Apply to

W. J. BEDELL.

Fredericton, July 29, 1844.

FOR SALE.

THE undersigned having been appointed Agent for the sale of a Grant of Land, situated in the Parish of Kingsclear, in the County of York, known and distinguished as the "BROAD AVE. GRANT," hereby offers the same for sale. And all persons are hereby forbid trespassing or cutting any timber on the said Grant of Land, as in event of their so doing, they will be prosecuted to the utmost rigor of the law. And all persons wishing to purchase the above tract of Land, will please make application (if by letter post paid) to

JOHN ANSLEY,
St. John, N. B.

AGENT for LEWIS A. CAZENOVE.

July 25, 1844.—3m.

WOOL CARDING.

THIE Sut-ruber has had his CARDING MACHINE put in first rate order. He will commence CARDING during the ensuing week, and will then be prepared, promptly and satisfactorily, to execute, at his STEAM MILL, Fredericton, any work, in the above line, which may be entrusted to him.

THOMAS PICKARD.

Fredericton, May 14, 1844.

PLOUGHS! PLOUGHS!!

A Good assortment of PLOUGHS, with or without the woodwork. Also—Plough Points of all sizes: one wooded PLOUGH with a wheel, all of which are to be sold at the lowest prices for cash by

JOS. C. HATHEWAY.

Fredericton, May 15, 1844.

A CATTLE SHOW AND FAIR

Is to be held at McLean's in Maugerville, on Tuesday, the 8th day of October next, at 10 o'clock in the forenoon, when the following Premiums are offered for the following Stock, viz:—

For the best BULL, of any age,	£1 0 0
For the second do. do.	0 15 0
For the third do. do.	0 10 0
For the best COW,	0 15 0
For the second do. do.	0 12 6
For the third do. do.	0 10 0
For the best RAM,	0 15 0
For the second do. do.	0 10 0
For the best BOAR,	0 15 0
For the second do. do.	0 10 0

And for Domestic Manufacture, viz:—

10 Yards best Homespun Fulled Cloth,	£0 12 6
Second best do. do. do.	0 10 0
10 Yards best Homespun plain Woollen Cloth, either coloured, figured, or white,	0 10 0
Second do. do. do. do.	0 7 6
12 Pairs of best Mittens,	0 5 0
12 do. do. Socks,	0 5 0
6 Best hand Hay Rakes,	0 6 0
6 Best Hay Forks, with handles,	0 7 6
6 Best Manure Forks,	0 10 0

And for the best sample of Produce, viz.—

Best quantity and quality of Indian Corn, from a quarter of an Acre,	£1 0 0
Second do. do. do.	0 15 0
Third do. do. do.	0 10 0
Best of Potatoes, from half an Acre,	0 15 0
second do. do.	0 10 0
third do. do.	0 5 0
Best quantity and quality of Turnips, from a quarter of an Acre,	0 15 0
second do. do. do.	0 10 0
third do. do. do.	0 5 0
20 lb. Clover seed,	1 0 0
second do.	0 10 0
2 bushels of the best Timothy seed,	1 0 0
second do.	0 15 0
third do.	0 10 0

No animal or article exhibited to be entitled to a Premium unless considered worthy of such.

All animals and articles exhibited for a Premium are to be owned by the members of the "Sunbury Agricultural Society," and to be marked by a number attached them previous to the exhibition; the number and name of the owner to be kept by the Secretary.

Persons competing for produce and fulled cloth, to acquaint the Secretary on the day of the cattle show, and be prepared to satisfy the Judges on the last Saturday in December.

CALVIN L. HATHEWAY.
Sec'y & Treasurer.

Sunbury, May 24, 1844.

FREDERICTON FOUNDRY.

THE undersigned wishes to announce that they have commenced the IRON and BRASS Foundry business in this Town, and are now prepared to turn off Castings of every description on the most reasonable Terms. They would be glad to enter into arrangements with parties for the erection of Steam Mills in this or any of the adjoining Counties. Persons desirous of obtaining Engines built upon the latest and most improved principles, can be accommodated by giving reasonable notice. In the course of the ensuing month the Subscribers will be able to supply parties, either wholesale or retail, with all kinds of Tin and Sheet Iron wares, at their Foundry Warehouse in Queen street, nearly opposite the Stone Barracks, or at their foundry in the rear of the residence of Mr. Morgan, King-street.

They will also have for sale various kinds of MERCCHANDISE, all of which will be sold on the most reasonable terms for satisfactory payments. As the Subscribers are determined to employ none but the most experienced workmen, the public may rest assured that all articles in the above line will be of the very best description. Old Iron or Brass purchased at the Foundry, or at the Foundry Warehouse.

MORGAN & TAYLOR.

Fredericton, July 30, 1844.

WANTED, at the FREDERICTON FOUNDRY an experienced Moulder, and two or three men, well acquainted with the Tin and Sheet Iron Business.

MORGAN & TAYLOR.