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THE COLONIAL FARMER,

DEVOTED TO THE AGRICULTURAL INTERESTS OF NOVA-SCOTIA, NEW-BRUNSWICK,
AND PRINCE EDWARD'S ISLAND.

VOL. I.

HALIFAX, N. S. SEPTEMBER, 1841.

NO. 3.

THE COLONIAL FARMER.

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AGRICULTURE AND DAIRY HUSBANDRY.

Jackson's Treatise on Agriculture and Dairy Husbandry is chiefly a compilation from Agricultural works of the highest character; among these he frequently quotes the "Letters of Agri-cola." The following extracts from this work will show, that a poor man may sometimes do a great service to his country, which the rich would attempt in vain:

"Two things were desirable to increase the extent of culturable soil for grain crops, and to raise sufficient food for cattle and horses all the year round. Now these desirable points involved a thorough change in the practice of husbandry. How was it possible to break up and profitably cultivate indifferent soils, much of which had hitherto been considered beyond all hope of improvement, without an abundant supply of manure? and how could this manure be procured without keeping a large stock of cattle, for which there was evidently no means of subsistence? To overcome these difficulties it was found necessary, in the first place to introduce what are called green crops, that is, crops of artificial grasses, including clover, turnips, and other roots and plants; for by having a plentiful supply of these substances two important ends were gained—the support of cattle for manure, and the alternation of green with grain crops; thus at once enriching the land, and relieving it from the scourging obligation to raise corn crops successively. On these main points then, along with plans for drawing off by artificial drainage the surplus water lodged in or upon the soil, hang the great Agricultural improvements of modern times.

"The admission of green crops into what is now termed the alternate system of husbandry, and which was commenced about a century ago in Norfolk, produced a revolution in the whole condition of Agriculture; without this important improvement on old usages, the reclamation and culture of soils of inferior quality would never have been attempted with any prospect of success. Soon after the introduction of the turnip crop into Norfolk, where the vegetable was first cultivated to any great extent, single crops were raised upon many thousands of acres of the light soils of that county, the value of which surpassed that of the previous fee simple of the ground. And throughout the kingdom, land, being by that means rendered capable of producing more than formerly became intrinsically more valuable, and the value of estates was nearly doubled. A knowledge of the improved husbandry spread to the Lothians, and some other of the Southern Counties of Scotland about the year 1750, and shortly the cultivation of turnips, carrots, and other vegetables, superseded the common practice of summer fallow. Still this improvement was only effected by certain spirited landlords, chiefly at their own risk; and among these gentlemen may be mentioned Lord Kames, in Berwickshire, and Mr. Cockburn, of Ormiston in East Lothian, to both of whom the modern practice of husbandry is much indebted. The farmers generally were deeply prejudiced against the new system, and paid little attention to what they deemed mere fancies and novelties of proprietors. At length one of the class of farm tenants led the way to a better appreciation of the improved practices.—Dawson was the son of a farmer in Berwickshire, where he was born in 1734. At the age of sixteen he proceeded to Norfolk, and other parts of England, to examine the best courses of Husbandry, and store up for his own use whatever seemed likely to be introduced with advantage into his own country. Returning to Scotland he commenced operations on the farm of Frogden in Roxburghshire, in the year 1759. Disregarding the evil anticipations of his friends and neighbours, he proceeded in his course, upon the rational plan of bringing his lands into the best possible condition. This he accomplished by the use of the turnip husbandry; by the use of artificial grasses then unknown in Scotland; and by the liberal use of lime, not for the purpose of scourging the soil by successive

grain crops, but to obtain the means of bringing it advantageously into grass. His object was, to support upon his lands a great number of cattle, and by means of them to enable a moderate portion of the soil to bring forth a larger crop of grain than had formerly been done by the whole. Every man who in our times has attempted to improve an ill-cultivated and exhausted soil must be sensible of the merit which attends success in such an enterprise; but in those days Mr. Dawson had to encounter difficulties which do not now exist. He had numerous prejudices to encounter, and it was nearly two years before he succeeded in training an expert ploughman, who was willing to follow out his plans. All difficulties are overcome by perseverance. Mr. Dawson's fields soon became more fertile and beautiful than those around him. This his neighbours might have overlooked, as they had disregarded the fertility produced by the costly efforts of certain enterprising land-proprietors; but as his conduct had become an object of minute attention, a more important point was speedily discovered, namely, that he was becoming a rich man. They now became eager to tread in his footsteps, men who had been once in Mr. Dawson's service were always sure to find employment; his ploughmen were in the utmost request; they were transported to East Lothian and to Forfarshire, and every where spread the improved practice of Agriculture. Roxburghshire, in the mean while, together with the adjoining County of Berwick, soon became the scene of the most active agricultural enterprises; and Mr. Dawson, independently of his own personal prosperity, had the satisfaction to live to see himself regarded, and hear himself called, the Father of the Agriculture of Scotland."

Although the improved mode of farming was introduced into Scotland not less than eighty years ago, yet it was not generally adopted much before the year 1800, since which period the rents have been doubled, and it is certain that it has been profitable to the farmer, as well as to the landlord, while at the same time food is supplied to more than twice the number that were in the country a century back. Here, (long, long may it be the case!) the farmer works his own land, and if he can double its produce the profit will be all his own.

A better system of school appears to have been connected in Scotland with improvements in Agriculture. For the last forty years the benefits of education have been diffused among a much greater portion of the population there than in any other part of the British Islands—scientific works have been published in a very cheap form; and for the sum of five shillings a complete course of lectures on Chemistry or Mechanics might be attended. They had learned (what it is rather difficult to teach very ignorant men,) that they did not know every thing that was worth knowing; and they therefore applied themselves to the acquisition of that kind of knowledge which they found they lacked. The consequence has been that "the Scotland of the present day is a very different thing from the Scotland of sixty or seventy years ago," as Mr. J. justly observes. Formerly on their ordinary soils, a part of the land was cultivated, (generally, by sowing with oats,) and a much greater part was a common pasture. When the crop would not pay expenses, the land was left to lay as a common, and a part of the "out-field land" which had long been uncultivated was taken in, first manuring it by cutting and drawing to it a quantity of alder bushes in the summer, which were removed when the leaves had crumbled off. The land was then ploughed and cultivated till it was worn out, when it was again turned into the "out-field." Under this "in-field" and "out-field" system, only the most fertile tracts were frequently cultivated, the greater part of the land made a poor pasture for sheep and black cattle, who had little ex-

cept heath to live upon in winter where there were no natural meadows, and whenever the winter was unusually severe, great numbers of cattle died. Each farmer worked his land as his father had done before him, and as Scotland produced little, it was accounted a poor barren country. Yet during the long period that this mode of farming prevailed there, the Flemish husbandry, there is reason to think, was as perfect as it is now*, and many enterprising Scotchmen (often men of high rank) were serving in that country in the armies, but at that time a gentleman was only a Soldier and a Politician, as ignorant of the science of cultivation as the poor labourer. Thousands of Englishmen had also been in Flanders, and returned, having seen nothing; yet finally, the eyes of two or three were opened, and they introduced the most important improvements into their own country, and a very small number carried these improvements from England to Scotland.

It is certain that an improved system of culture would increase the produce of this country as much as it has that of Scotland, but we have much to learn from our own experience. We cannot raise all the crops here which are raised there, and we can raise some here which cannot be raised there. The diseases, and the insects which affect the crops, differ on the different shores of the Atlantic. Yet the principles of good husbandry are here, and, indeed in all the countries the same. The land should always be kept in a state that will yield great crops. The implements should be those that will do the work most cheaply, and the kind of cattle in each district should be that which is found to give the greatest profit upon the expence of supporting them. To this we may add, that the greater part of the labor should be applied to those crops which are generally successful.

Before any considerable improvement can be introduced, draining will be necessary upon a considerable proportion of the land now cultivated. The soil of a great part of the Province is now in a state that would prevent a small quantity of lime from having

* Men of Science have called Flanders "the cradle of Scientific Agriculture," and we may add, that for many ages, useful arts and manufactures were there cultivated more successfully than in the neighbouring countries. Flemings driven from home by the failure of a great dyke, came to England and manufactured the excellent wool of the country into an article so beautiful that Ladies in every part of Europe were eager for it. The gloomy sullen Englishman, as he is called by his neighbours, has been rather sparing of fair words to foreigners, but when they were in distress he has given them something better: protection and assistance; and he has always been a gainer by it. The French refugees banished for their religion by Louis XIV. were naturalized in England, and became very useful by the manufactures they introduced.

It is proper however to observe that our gratitude is due to that Providence which made use of the inhabitants of the Low countries to preserve arts so useful to mankind, and not to the people themselves, who were by no means disposed to teach their neighbours.

The Low Dutch turn the fronts of the houses to their fields, not to the road; say less, and think more than other people, are great economists, and uncommonly skilful in manual operations, seeming always to take every thing by the right end, and for that reason accomplishing more by their slow motions than some of their hurrying neighbours can effect. Little accustomed to speaking, they often express their meaning awkwardly, for which reason their neighbours ridicule them as stupid, and they are often blamed for unconquerable obstinacy. It is probably to this last quality in part, that we may ascribe their retaining so much useful knowledge after it had been lost in neighbouring nations. They seem always to have successfully resisted all attempts of their rulers to deprive them of so great a share of their earnings that they could not carry on their business to advantage, at the same time that, with great firmness, they defended their country against foreign plunderers, during those ages in which it seems generally to have been believed that war ought to be the principal business of mankind.

any sensible effect. It is constantly receiving a portion of vitriol from the subsoil. Draining would carry off the greater part of this vitriolic water which is now raised to the surface. It has been found in Britain that to ensure large crops, draining is necessary not only to springy ground, but to all clayey and stiff soils. When such drains have been formed that, large quantities of rain water will not completely fill all the interstices of the soil, and rise to the surface, the vitriol formed beneath will be carried off by the drains.

In this Province the use of Lime as a manure is unknown to most farmers. A few have tried it without any effect, and some have injured their land by using it unskilfully. Very valuable information upon this subject will be found in this work. "The application of Lime" says Mr. Jackson, "occasionally, has effected a complete change in the husbandry of Scotland. Since the first introduction of turnips and the sown grasses, the condition of the live stock has been greatly improved; and from applying lime in the cultivation of sheep, dairy and tillage husbandry, which require to be administered to the above plants, an immense quantity of waste and hitherto unproductive land has been brought into active fertility." Sir Humphrey Davy observes "when lime whether freshly burned or slacked, is mixed with any moist fibrous vegetable matter, there is a strong action between the lime and the vegetable matter, and they form a kind of compost together, of which a part is usually soluble in water. By this kind of operation, lime renders matter which was before comparatively inert, nutritive; and as charcoal and oxygen abound in all vegetable matters, it becomes at the same time converted into a carbonate of lime," [that is, it is converted into the state in which it was before it was burnt; all limestones are carbonates of lime]. Mild lime, powdered limestone, marls, or chalks, have no action of this kind upon vegetable matter; by their action they prevent the too rapid decomposition of substances already dissolved, but they have no tendency to form soluble matters. It is obvious from these circumstances that the operation of quick-lime, and marl or limestone, depends upon principles altogether different. Quick-lime, on being applied to land, tends to bring any hard vegetable matter that it contains into a state of more rapid decomposition and solution, so as to render it a proper food for plants. Marl, or carbonate of lime, will only improve the texture of the soil, or its relation to absorption; it acts merely as one of the earthy ingredients.† Quick-lime,

† It has been often asserted by Chemists that mild lime, that is to say, powdered limestone, chalk, oyster shells, or slacked lime which has lost its taste, furnishes no more food to plants than sand, or clay; and that it acts only by improving the texture of the soil; by rendering clay more loose and open, &c. Had chemistry been well understood in the days of Homer when kings held their own ploughs, such mistakes could not have been made. The chemists reason correctly upon the facts they know, but are often ignorant that most poor soils abound with vitriol of iron; a very important fact which had they been ploughmen they must have known. Vitriol by its petrifying action makes fertile mould barren. It is composed of iron and sulphuric acid. Limestone is composed of lime and carbonic acid. When it comes in contact with vitriol, the sulphuric acid of the last having a stronger attraction for lime than for iron, lets go the iron in the state of ochre, and uniting with the lime changes it to gypsum; the carbonic acid of the limestone at the same time flying off in the state of carbonic acid gas, which is well known to be an important part of the food of plants. If a quantity of limestone, much exceeding what is wanted to neutralize the vitriol in the soil, were spread upon land, its fertilizing effects would be durable, if the subsoil were always transmitting additional quantities of vitriol to the surface, which would serve to disengage a portion of the carbonic acid of the limestone. And it is probably by this process that some lands full of broken limestone have been enabled for a long time to produce good crops without the aid of manure. Thus this generally diffused salt, vitriol, which seems

when it becomes mild, operates in the same manner as powdered limestone; but in the act of becoming mild, it prepares soluble out of insoluble matter. The solution of the question, whether quick-lime ought to be applied to a soil, depends upon the quantity of inert vegetable matters that it contains. The solution of the question whether Marl, mild lime, or powdered limestone, ought to be applied, depends upon the quantity of calcareous matter already in the soil. All soils are improved by mild lime, and ultimately by quick-lime, which do not effervesce with acids and sands more than clays." This last sentence will apply to the slaty land adjoining to Halifax. The soil is shallow, resting on a rock containing a great quantity of Pyrites, the mineral from which Vitriol (the common green copperas) is formed. From this rock a portion of vitriol has been introduced into the soil, and this solution of vitriol (or copperas water,) is now in summer always rising to the surface of the rock through the small fissures in its surface. It is there decomposed; instantly, if it comes in contact with lime, soda, or potass; and more slowly by fertile mould, and peat earth. The iron (for copperas is iron combined with sulphuric acid) falling in the form of yellow ochre. This ochre soon hardens, forming the rust we now see on the slate rocks, and changing the rich mould with which it is mixed into a dark brown rusty gravel which is perfectly barren. In reclaiming waste lands in Scotland which have a turfy surface, soil covered with heath, (which there is the natural shrub of those soils that would here be occupied by Kalmia,) (dwarf Laurel), about 200 bushels of quick-lime to the acre so decomposes the turf, that without any other manure a good crop of oats is taken from the land, and then laying it down to grass, it makes a rich pasture. But were that quantity of quick-lime applied here to a soil containing a great quantity of vitriol; such, for example, as is found near Bank-head, it could not have much effect, because the vitriol would neutralize the lime and prevent it from decomposing the half decayed vegetable matter. But if a large quantity of mild lime, that is to say, broken limestone, oyster shells, Bermuda gravel, or old plaster from buildings that are burnt or pulled down, were first applied to neutralize the acid of the vitriol, the quick-lime would then be useful.

Upon the hills of Scotland, turfy ground neatly covered with heath, which produced but very little, and very coarse grass, by a top dressing of 150 or 200 bushels of lime, has been changed to excellent pasture of white clover and other sweet grasses, and this fertility has in some cases continued for 30 years, but if this pasture was ploughed and a crop or two of grain taken without manure the land was much impoverished.

Upon tillage land the first application of lime is best made by spreading it upon the grass land that is to be ploughed for sowing grain. After a rotation of 4, 5, or 6 different crops, two of which ought to be dunged, and one or two of which are always clover, the land should be pastured for 3 or 4 years, when lime may be again used, remembering that eight or ten years ought always to intervene between two applications of this manure. For this second application the lime ought to be compounded with three or four times its quantity of peat earth, the wash from roads, scourings of ditches, or earth from the headlands of fields. In the state of New York, lime in a quantity not exceeding twenty-five bushels to the acre has been found useful, while an additional quantity did not appear to make any alteration in the crop.

In the Eastern part of the Province there are masses of limestone which fertilize the soil that is in contact with them in a the principal agent in making land barren, does, with the proper proportion of carbonate of lime, serve to fertilize it.

remarkable degree: this rock changes to a black rotten stone where it is exposed to the air. Vitriolic soils would undoubtedly be permanently improved by spreading a quantity of this stone, broken into small pieces, upon them. This stone may be found in the lower settlement of Musquodoboit, and in many places on the high lands between Antigonish and St. Mary's river. It would be best in trying experiments with lime, to try proportions varying from 10 to 200 bushels to the acre. In France a compost made with about 12 bushels of lime, and seven or eight times the quantity of rich mould, has been found sufficient for an acre. It is applied every third year, in rows through the field—the alternate spaces being manured with stable dung. After the lapse of three years, the dung is applied to the part that was limed, and the lime compost to that which was dunged. It is asserted that the fertility of land manured in this way has continued to increase for 60 years.

T. S.

BREEDS OF CATTLE.

As the greater share of the horned cattle procure most of their living in summer from a poor pasture, of which there is in many places an unlimited range, it would be useful to raise that breed which thrives best on such a pasture. A great difference will be found in the flesh which different cows acquire on our ordinary pastures, the small cattle do not all fatten, but the very large are almost invariably poor. If no calves were raised except those of the cattle who are the most thriving, our own bread would improve, but it is certain that crossing the breed has produced considerable changes, both for the worse, and for the better. A pretty dear experiment with the former result has been tried here by introducing the blood horses.

Valuable breeds have been procured from small males and large females. The English blood horse was introduced by a large breed of mares from Denmark, crossed with the small Barbary horses procured from the wreck of the Spanish Armada.—The hog now most valued is from the small Chinese boar and a sow of a larger breed. A very large breed of hogs was imported here between 40 and 50 years ago; at three years old they weighed about 500, but it was soon discovered that the great size could not be kept up without an expence in feeding which the pork would not pay for. The large dangling ears of this breed still continue, but the great size has long since disappeared. The Chinese pig is of a small size, with short legs and nose, and a broad back, of quick growth, and great breeders. The pork is much superior in flavour to the common kind. They might probably be procured from New-England, where they were formerly known by the name of the Guinea breed. They thrive better in pastures than the large breed. If we had them we might with a good chance of success try for a new breed by putting the Boars to some of the best of our own breeds. We have in the Province the Irish grass pig which thrives in pastures.—A Bull of the small Kerry breed might introduce a kind of cattle who would thrive better upon the pastures where three-fourths of our cattle live in summer than our common breed. Of large breeds for fattening, it was, I believe, the decided opinion of Bakewell that the long-horned were the best.

T. S.

MANGEL WURTZEL.

There is reason to believe that upon the warm sheltered soil between Annapolis and Windsor, the Mangel Wurtzel would be more profitable for feeding cattle than potatoes. Near Halifax, in a warm season, sixty-five bushels have been raised upon seven rods of ground very well manured with manure from the pigs pen.

The expense of taking them in is trifling; they keep well in cellars, and are eaten by all kinds of cattle.

To keep a large kind it would perhaps be necessary to import seed frequently from Germany. The root diminishes in size and improves in quality by raising the seed here. I formerly raised the seed of this kind of beet for forty years in succession, during which time it had changed to a dark red beet scarcely distinguishable from the common blood beet of the gardens.

The large crop above-mentioned was from seed raised here from beets which were grown from seed from Alsace. T. S.

EXPERIMENTS WHICH MAY BE TRIED BY MEMBERS OF SOCIETIES.

Choose two cows who give nearly equal quantities of milk and let one of them be put in the stable at night and fed with as much young grass as she will eat, to be mowed from a piece of rich land. The other to be pastured in the usual manner. Keep an exact account of the quantity of milk given by each through the seasons; or of the butter and cheese made from the milk, and also of the quantity of ground required for the grass. Couch grass, Foxtail, sweet scented grass, and white clover, grows quickly after mowing, and will in most seasons bear cutting four times. Timothy does not grow so freely after cutting, and buttercup should be avoided, as cows do not eat it willingly, till it is made into hay.

In those parts of the Province where the soil is free from stone, it is not uncommon to give Potatoes so little manure that the crop will not exceed 180 bushels per acre. In these situations the following experiment would be useful:—plant an acre of Potatoes with the usual allowance of manure; adjoining this, plant half an acre, with the same quantity of manure that was applied to the whole acre. Let both be planted in the last week of May, that there may be time for the potatoes to acquire their full growth. The next year sow both pieces with grain and grass seeds: keep an exact account of the time expended in raising each crop, and also of the produce. When the hay on the third season has been cured, it will be easy to decide which way of using the manure has been most profitable, although the trial is not then past, for on the fourth year the half acre will continue to yield the best crop.

Plant a piece of ground (not less than $\frac{1}{2}$ acre) with potatoes; using for the first four rows whole potatoes about the size of hen's eggs, for seed, which should be 2 feet apart in the drills; for the next four rows cut pieces, at the customary distance, then planting again four rows of whole potatoes, &c. till the whole is planted, taking care to plant an equal number of each. When taken up let the produce of the whole and of the cut seed be measured separately. This experiment has formerly been tried near Halifax. When the whole crop was small there was a considerable difference in favour of the whole seed. When the crop was very great, the difference was trifling. In both cases the plants from the whole seed were first in flower. T. S.

Although the Marshes on the Bay of Fundy always have a great depth of fertile reddish loam near the creeks and rivers, yet in some broad marshes there are portions remote from the creeks where this loam is not perceptible, the soil being a blue clay, which, although it produced good crops of salt hay when exposed to the tides, yields very little of any thing when dyked. This sterility is caused partly by vitriolic salts, of which, I have observed it con-

tains a considerable quantity. (Of this any person may convince himself by placing a quantity of this clay under a shed where it will be exposed to the air, but not to the rain, wetting it several times with urine, and then allowing it to lay through the hot season, during which it should be turned two or three times; it will then be found to contain a considerable quantity of allum.)

Let a bushel of unslacked lime be covered with four or five bushels of earth, and after the lapse of a fortnight, or as soon as the lime is well slacked, let it be well mixed with the earth and spread upon the blue marsh. It would be well to try it in the proportions of a bushel, half a bushel, and a peck of lime, to a rod of ground. If this were spread upon a long narrow strip in the latter part of summer, the next spring it might have a shallow ploughing and be sowed with clover and grass seeds, with some kind of grain. Before the application of lime the marsh should be well drained, or else the vitriolic water of the subsoil would in the wet season be raised to the surface, and render the lime useless.

Let a cartload of the soil of the blue marsh be laid upon the upland, bury in it a bushel of unslacked lime, and when it is thoroughly slacked turn and mix the heap and apply it as a top dressing to two rods of grass on the sandy upland. T. S.

From the Mechanic and Farmer.

MR. STRICKS:—Sir,—Want of confidence in the adequacy of the means to accomplish the end, may be the cause of failure in an undertaking. This may be applied to agriculture in common with any other affair of life. It is no uncommon thing to hear such observations as, Nova-Scotia has never been intended for a farming country.—There is so little of it good soil, and the climate is so miserably bad, and so short time to put in crop, that no quantity of it can be raised; and then the winter is so long that it eats up every thing that grows in summer, and people are just slaves to their cattle; and that there is not capital in the country to carry on improvement, and so on: and 'till if it were not for the timber trade there would be no making a living in it. Were these well established truths (now that the timber trade is like to fail), it is time we were packing up for a start to Wiscasset, or some other Eden. But as this would be attended with a good deal of trouble, it may be worth while to inquire a little into the capabilities of Nova-Scotia to support its inhabitants; and now seems a very suitable time for doing so, the legislature having set apart a portion of the revenue, to aid the farmer in introducing improvements so much needed; and to give us a fresh start, and it may be hoped, effectual start on the road to independence for at least bread stuffs.

I shall in the first place, express an opinion long entertained, that Nova-Scotia is susceptible of being improved to maintain, not only its present inhabitants, but ten times their number, and then take up the objections here stated, and answer them by some short observations; first, "that there is but very little good soil." I admit that the soil is not all equally good in this country more than any other; but I do think there is as great a proportion of it naturally excellent, or susceptible of being made productive by cultivation, as in most countries with which we are acquainted. Bring under review, the heath-clad hills and moors of Scotland, Wales, and part of England and Ireland, that many of us have seen—the dreary arid wastes and frightful swamps of Africa—the alpine regions and morasses of other parts of the world, and Nova-Scotia will suffer but little by the comparison. There is but a very small proportion of it but what may be brought to yield support for man. There is, I conceive, a great part of its whole extent capable, by proper cultivation, of yielding from thirty or forty bushels of wheat the same or more of barley, from forty to sixty of oats, and the same of beans, from three to four hundred bushels of potatoes, and from three to four tons of hay to the acre; and if it is true, as I have heard some people say, that the soft-wood land on which fire has destroyed the wood, after being blown down and the roots become rotten, if it is ploughed and sown with either pease or buckwheat, crop after crop, it will get richer every year until it is fit to carry any species of crop without manure, it goes far to prove that a great proportion of what is considered poor land may be brought into a profitable state of cultivation by means

within the reach of all. Another observation I would make, which may go far in establishing our position, and one of which almost every person has an opportunity of knowing the correctness, is, that a good many farms in the country on which a living could not be made by the occupier, from the supposed poverty of the soil, dies upon falling into other hands, and under a different treatment, yielded a comfortable living; and in some cases where such farms have been let to rent upon what is called the halves, the proprietors are receiving something considerable. In one such case, in particular, the proprietor told me lately, that he got something about a hundred pounds worth from his tenant last year as his share.

Yours truly,
Stirling, August 12.

JOHN BOXTMAN.

From the Albany Cultivator.

COMPARATIVE VALUE OF PIGS FOR CUTTING.

That there is a very great difference in the value of pigs of equal weight, when fattened and killed, is known to every buyer and packer of pork, and should be well understood by every farmer. There are certain parts of a hog, such as the hams, lard and mess, much more valuable than other parts, such as the head and feet, and those hogs that give the greatest weight, where it is of the most value, other things being equal, are the best animals for both seller and buyer. Weight, however, without reference to the place where it is found, is generally the standard of value, and a hog that will weigh three or four hundred, even if one-third of it is in the heads and legs, is by many considered first rate. A breed of hogs, then, having large hams, thick sides that lard well, with short necks, small heads and slender legs and feet, is the one which is to be preferred, if their is sufficient weight of carcass and aptitude to fatten. Perhaps with an exception in a single point, that of weight, the Chinese hog comes nearer the standard of perfection than any other; and this defect in size, while the other valuable points have been retained, has been best corrected, we think, by the cross with the Berkshires. The great thickness of these hogs gives a weight of ham unequalled in any other, and their round capacious carcass furnishes ample room for lard, which experience shows is usually fully occupied. Many have been disappointed in killing Berkshire pigs, because they looked smooth and round when compared with the alligators, and it seems to have been supposed they should weigh without feeding, as much as the latter after months of stuffing. No one has a right to expect this; the true point at issue is, which pig, with the same food, will make the most meat, and of the most valuable kind? and tried by this rule we have no fears for the Berkshire. Our pen of hogs this year consisted of five hogs of one of the best common breeds, and one Berkshire. The lot was from 18 to 24 months old, the Berkshire the oldest. They were none of them in high order when put up, and were fed wholly on steamed apples and potatoes, with the exception of about 20 bushels of screenings, refuse wheat and oats mixed together and ground. The average weight of the whole was 375 lbs. each; that of the Berkshire alone was 430 lbs. Several of the common pigs were longer than the Berkshire, but the weight in the latter was on the most valuable parts, and we have never seen a hog that exceeded him in the hams and lard, while the weight of the less valuable parts was proportionably less. They were fed little more than two months.

Since writing the above, we have been favored with a copy of the Report of the Committee on Swine, made to the Tompkins Co. Agricultural Society, in which are some very just remarks on the subject discussed above, and on the relative value of the several varieties of pigs now generally grown and fed in the country. From this Report we make the following extract, as illustrating more fully the opinions we have expressed:

"The following experiment made by the chairman of this committee last December, in cutting up his pork, will show that the Berkshire pig cuts up well, and has less offal than other breeds in proportion to the valuable parts. The first example is a sow, common breed 2½ years old—had raised one litter of pigs in July and August, 1839. She weighed as follows, in parcels, whole weight 235 lbs. The second is a half blood Berkshire sow, 18 months old; had raised two litters of pigs; one in March and April, and the other in September and October, 1.39—slaughtered in December. Whole weight 204 lbs. in parcels as below. The third example that we will give is a half blood Berkshire barrow,

18 months old, killed at the same time, and all fattened in the ordinary way, whose weight 336 lbs. In parcels as follows:

	No. 1.	No. 2.	No. 3.
Lard.....	26	16	31
Hams.....	32½	31	62
Tenderloin.....	5	3½	5
Feet.....	8½	6	0
Mess Pork.....	96	103	170
Prime.....	2½	16	20
Head.....	18	16	21
Spare Rib.....	20	12	10
	235 lbs.	204 lbs.	336 lbs.

The following from the same report, is commendation strongly expressed, we think facts will fully bear out the writer in his remarks:

"The Berkshire is a hardy hog, and a good feeder, and is as well adapted to consume the coarse food of the farm, as any other breed; and it is believed they will make a greater return in flesh for the food they consume, than any other breed, except perhaps the China, and as large a return as they will. They are also remarkable quiet hogs, which is a very desirable quality with the farmer. They keep out of mischief, and save their flesh by their gentleness. Their skin is white when dressed and very thin. Their pork is firm and solid, and of the very best quality. Their hams are unrivaled; and possess a higher character, where known, than the ham of any other breed of hogs in existence."

AGRICULTURE IS THE FOUNDATION OF WEALTH.—The sea renders her tribute; but the earth presents to skill and industry richer and infinitely varied contributions. Money is not wealth. It is only the representative of wealth. Money is coveted because it can command labor; but of what use would it be, if labor would not be commanded. What would it avail to possess all the riches of Potosi, if thereby we could not acquire the products of agriculture? What freights the barks of commerce in their liquid flight, threading every channel and whitening every port, but the products of agriculture? Whence does the government derive its revenues but from the fruits of agriculture? What constitutes the wealth of the country but her cotton, hemp, sugar, rice, tobacco, wool, wheat, beef, and pork? Agriculture only can be considered as the creator of wealth. The merchant, the manufacturer, the sailor, the various artisans and tradesmen perform their part in making the products of agriculture more valuable; in transporting them so that the advantages of climate are equalized, and in putting them in a condition for use; but agriculture alone produces. Like the leader of Israel, she strikes the rock, the waters flow, and a famishing people are satisfied. She supplies, she feeds, she quickens all. Agriculture is the commanding interest of the country, with which no single interest nor indeed all other interests of a secular nature combined, can be brought into competition.—*American paper.*

UNRULY HORSES.—Some years ago, when the famous Walk-in-the-Water was running so successfully in the West, he came in contact with a smart filly at Gallatin, Tennessee, and his friends knowing that she had good parts, determined to beat her by artifice. She was fretful, stubborn, and unmanageable, so Col. thought of having her hissed by the rider of "old Walk," till she would grow crazy, and then he knew he could run her down, and beat her very easily. But astonishing to every body, the filly came to the stand, for the first time, as gentle and unexcitable as an old plough horse—she started well, run without irritation, and beat the old horse two straight four-mile heats with the greatest ease. The mystery was then, and has been ever since, to know what tamed the frantic creature on that day, for the first time. We are authorized to say from the Doctor who directed the medicine, that the Mare's ears were stuffed full of cotton—that's all.—*Agriculturist.*

CURE FOR MEASLES IN SWINE.—The existence of the disease can only be known by the animal not thriving or fattening like the rest. Put into the food of each hog, once or twice a week, as much pounded antimony as will lie on a stilling. This is very proper for any fattening swine, though they have no disorder. A small quantity of flour of brimstone will be of great service, occasionally given to swine. But the best way is to prevent disease by keeping their sties clean and dry, and allowing air, exercise, and plenty of clean straw.—*Cultivator.*

[Selected.]

THE PLOUGH.

PROGRESS OF THE SEASONS.—HAPPINESS OF RURAL LIFE.

While yet the year, deep in her wintry trance,
Nor sees, nor hears, nor feels th' approaching spring;
While rudely, still, the Boreal storms advance,
The sleet-shower shaking from tempestuous wing;
Ere yet the lark essays to soar or sing,
But feebly cowering seeks the sounding shore
Where flowing tides from viewless caverns fling
The shell-elad morsel he can quiet devour,
Nor in wild tones contend with Ocean's wilder roar.

But brighter days approach —The joyous morn
From the gay chambers of the cloudless sky,
Looks out with light and life. Her mantle dun,
Rejoicing earth, for living green lays by.
And sweet, the early flower, of loveliest die,
Blooms, odour-breathing, on the sun-ward slope—
Soft-winged abroad the wrestling breeze fly—
With genial dews mild Eve begins to drop,
And trees, and flowers, and fields, put forth the buds of hope.

'Tis now that pleasure waits upon the plough—
High Heaven resounds the Lark's wild melody,
And the bland air gives out the living glow,
Active with life and fervid energy.
The leaves as yet but scantily clothe the tree,
The fields but scantily yield the honied flower,
But, on the clustering palms, the busy bee,
With eident hum, employs the sunny hour,
To heap his hoarded bread, or swell his waxen store.

Forth to the joyous labours of the field
The household hasten at the master's call;
Some bear the precious seed, some patient wield
The needful spade, some beat the furrow small.
And light of heart good humour smiles on all—
The soil, the season and the labour new;
For every joy the children, noisy, brawl,
And still their ardour bursts afresh to view
The dog from field to field the pilfering rooks pursue.

And soon approaching glad some jolly May,
With the full flush of buds, and leaves, and flowers,
And the full choir of woodland music gay,
From morn to even with rapture fills the hours,
And lovely June with dews and genial showers,
Calls forth the softest green, the liveliest bloom;
While, silent, in her ivy-mantled bowers,
'Mong clustering roses hid she breathes perfume,
And sees, rejoicing Earth, her liveries rich assume.

July behind all blowed with native heat,
Half breathless, paces slow the umbrageous shade,
And scatters wide, the cooling berry, sweet,
Of deepest blue, or blushing purple red,
And in her breath matured with heavy head,
Earthward the wheat, full-cared, begins to tend,
While to the orchard, fair, with fruitage spread
A yellow tinge her touch begins to lend,
And bowed by slow degrees, the laden branches bend.

August at length, in robes of purple dye,
Most gorgeous o'er moor and mountain glides
And plenty flows responsive to her sigh,
Wide o'er the yellow vale in wavy tides:
And while in clouds her portly form she hides,
Or rushes hollow, through the forest sear,
With prudent care the husbandman provides,
To save the precious products of the year,
The solace of his toils, his hopes for winter drear.

September comes with dogs and thundering guns
Re-echoing to the ardent sportsman's noise
And keen, through all her fervid spirit runs,

Resuscitating spring's delightful joys,
The skies are clear and no dark thought destroys
Creation's joy with views of future pain;
The Merle once more her mellow pipe employs,
The lark to Heaven's gate bears her song again
And sweet the linnet swells the reaper's joyous strain

Till pale October in her robes of brown,
Lids, dowie on the world her weeping eye,
And Nature's voics in forest, dale, and down,
Sinks dull into a melancholy sigh:
The sobbing blast, the sear leaf rustling by,
The distant waterfall's portentous swell,
The voice that sweeps, responsive, o'er the sky,
Re-echoed far from yonder misty fell.
Bid to the passing year a long and sad farewell.

Yet lingering still most delicately sweet
Flowers here and there put forth their pensive bloom—
And on the bank that fronts the noon day heat
Still crackles on the ear the expanding broom.
And still the red breast, with unruffled plume
Continues wild his warblings from the tree,
Which cheers the simple Cottar's harvest home,
That knows no higher feast nor revelry,
Save from the heart to Heaven the warm thought rushing free.

Now ease and plenty smile upon the farm,
For all its labors for a year are done;
The yard is stacked full, and each from harm,
Secured by coverings carefully put on;
And on that little spot his hands have won
By skilful toil, from the surrounding waste,
Cheered by a mild and bright October sun,
The cotter and his smiling inmates haste,
Now other crops are saved, to save their own at last.

The children laid amid a heap of sheaves,
In artless pastimes sport away the hours,
Trace with delight the slowly falling leaves,
Or re-arrange the wreath of simple flowers;
Meantime the mother active plies her powers,
The husband and the father's toil to aid,
And ere the darkening hour of gloaming lowers,
So happily their parts are mutual play'd
That safe in huddled rows the whole is fair array'd.

And drear November finds them full prepared:
For Calf and Cow is fodder laid in store;
Potato-bings and corn stack in the yard,
Keep far away lean hunger from the door.
Work lies around them, and the rainy hour,
And lengthened night, their converse gay must charm,
Parental cares, affection's tender power,
And meek devotion's ardor ever warm,
Forbid the languid powers their peaceful hearts to harm.

Much do I envy thee, thou happy swain,
Although thy toils are constant and severe,
Thy gettings small, thy table very plain,
Thy dwelling through the winter somewhat drear
Despairing wretchedness thou canst not hear,
Perverse stupidity thou dost not see,
Th' infectious breath of vice thou needst not fear.
Surrounded thus by sweet simplicity—
Unscathed thy virtues bud, and bloom and ripen free.

The deep reverse thy heart hath never torn,
With strangers lonely never hast thou pined,
Those very stones thy infant steps have worn,
Thy days behind that hill have all declined,
Splendour and wealth with mean deceit combined
And flaming zeal with villany and lust
Have never roused thy rage against mankind,
Nor hollow friendship plunged with deadly trust,
Deep in thy aching breast, the dagger of distrust.

THE AGRICULTURE OF NOVA-SCOTIA AND NEW-BRUNSWICK.

By A. GRANGER, F. G. S., &c. &c.

CHAPTER III.

Having referred to the Geographical distribution of the granite soil of Nova-Scotia, we next proceed to examine its situation in New-Brunswick, where it is found to possess similar characters, according to the mineral nature of the rocks from which it has been derived.

Extending from the proposed American Boundary, on the river St. Croix, between St. Andrew's and St. Stephen's, in a north east direction, to the St. John, at the head of the Road, there is an irregular shaped tract of granitic* country which passes through Charlotte, and occupies a small part of Queen's Counties. Another long and narrow belt of granite and syenitic† country extends from the Kenebecasis along the dividing line between St. John and King's Counties; and entering the County of Westmoreland, terminates near the Shepody Mountains. This tract will not average over eight miles in width and for reasons already mentioned, it is but thinly inhabited. A settlement upon the Nerepis Road, and another called the Irish settlement, on the old Shepody Road, are upon this class of soils. The soils of these two districts do not exactly correspond with the granite soil of Nova-Scotia. This circumstance is fully explained, by referring to the rocks beneath. In these granite districts, in New Brunswick, the characters of the soils has been modified by the presence of the rocks called syenite, trap, and others containing hornblende, while in Nova-Scotia it has resulted more generally from granite alone.

Another broad tract of granite reaches from the American State of Maine, across the Chepudneticook River and Lakes, and also across the River St. John, to the sources of the Miramichi. The soil on this tract is identical with the granitic soil of the sister Province. There are also large areas of a similar character in the Counties of Northumberland and Restigouche; but wherever they exist, their scantiness and peculiar gravelly nature, with the presence of boulders render them very discoverable.

During the last fifteen years I have been engaged in constructing geological and agricultural maps of Nova-Scotia and New-Brunswick; when the work is completed, it will greatly assist, in exhibiting the situations of each of the classes of soils, in both Provinces; and there is a hope of having them published in the course of a short time, should sufficient encouragement be held out for the object.

From what has been already stated, it will be seen, that this class of soils is unfavourable for cultivation. This circumstance does not however arise from the chemical composition of the soil itself, but from its admixture with undecomposed blocks of stone, pebbles, and gravel; which are incapable of supplying the delicate roots of plants with the nutriment they require. But wherever these solid materials have been reduced, and new combinations have taken place, in their constituent elements, a strong and productive soil has been the result. In numerous instances the different minerals entering into the composition of granite, are found in gravel, or sand, having been liberated from the parent mass by the frost and the action of the elements. Such collections of sand and gravel, are always unproductive, and tracts may be seen upon which even a lichen refuses to grow. But no sooner are these substances acted upon, by decomposing agents than they at once become fertile.

The soil produced by the mere separation of the mica, feldspar, and quartz composing granite, is unproductive; but when these minerals have been acted on chemically, they immediately become capable of supporting vegetation. Frequently in a single field of granite soil, the crop will be very uneven, some parts being strong and healthy, while others are meagre and not worth gathering. Besides the situations of different parts of such fields and the uneven application of manure, &c. I have found that spots occupied by the undecomposed granite sand failed in the support of vegetation; the same sand in situations where it had undergone chemical decomposition, was productive. The unevenness of crops under these circumstances is frequently attributed to other causes. Frequent ploughing, and especially fall ploughing, by exposing the granite sand to the operations of the weather are the best remedies in cases of this kind.

The air, rain, snow, frost, &c. are the agents by which the stony rock is broken up, and changed into such ingredients as vegetation requires; and therefore all soils, where the decomposition has not been considerably advanced, are improved by being frequently stirred, so that all their particles are brought under the influence of those agents. The principal substances entering into the composition of granite, are silica (flint) alumina, potash, soda and sometimes lime; from the predominance of the silicious, or stony matter, the soils arising from this rock are of a sandy nature. But frequently the quantity of alumina is sufficient to render them sufficiently tenacious, and the presence of the alkalies (potash and soda) is highly essential by the fermentation they produce in vegetable matter, or manure, and by the contributions they afford to living plants.

The analysis of several specimens of granitic soil, taken from fields of excellent wheat and potatoes; gave the following medium result in 100 grains:

Water	4 0
Vegetable matter	7 5
Allumina	10 0
Peroxide of iron	2 5
Carbonate of Lime	3 20
Insoluble granitic sand	71 70
Potash	a trace
Loss	2 0
	<hr/>
	100 0

Granitic soil taken from a field of excellent potatoes near the Medetic on the river St. John, gave, in 100 grains:

Water	6 15
Vegetable matter	5 0
Alumina	14 20
Peroxide of iron	1 50
Botoxide of manganese	a trace
Carbonate of Lime	1 30
Carbonate of Potash	50
Insoluble granitic sand	69 35
Loss	2 0
	<hr/>
	100 0

Granitic soils are well adapted for wheat and frequently produce great crops. Indian Corn also flourishes well in this soil; this useful plant is frequently seen in a strong growth among large granitic boulders, which are sometimes spread over the fields greatly to the annoyance of the farmer. The superior growth of Indian Corn under such circumstances, has been attributed by some to the heat given out by the boulders during the night; but although

* Granitic—having the properties of granite.

† Syenitic—having the properties of the rock called syenite.

this may produce some effect upon the vegetation of such lands, more is to be ascribed to the nature of the soil itself.

It does not appear that much advantage will be gained, by the application of lime to granitic soils, unless it be in small quantities. The lime contained in most soils of this kind, may be sufficient for their fertility, and should it be increased beyond certain limits it would prove injurious. The improvement of this kind of soil evidently depends upon the application of barn, or vegetable manure; of the latter sort will be found far the cheapest, and when made into proper composts, will be quite sufficient for any kind of crop. In almost all granitic districts, peat is abundant; and there is scarcely a tract in either of the Provinces occupied by the soil referred to, where this vegetable manure cannot be obtained. But its consideration as a manure must be deferred until we come to treat of manure in general.

A good crop of wheat cannot be produced on land that contains no lime; and the application of lime to the seed at the time of sowing, not only protects it from insects, but also assists in the process of germination. Silica is also necessary for the growth of wheat. This mineral not only contributes to the production of the grain, but also enters into the composition of the plant itself forming a constituent part of the straw.

The burning of timber upon many kinds of soil has a beneficial effect, which may be ascribed to the powerful agency of heat and the potash supplied from the ashes. I have observed that granitic soils in general are not improved by burning, and some of them are injured by powerful fires. Perhaps this may arise from the quantity of alkali being increased beyond what is necessary for the support of vegetation. The burning nevertheless destroys the seeds of noxious plants, and leaves the earth in a state whereby all its energies can be devoted to the planted crop.

In the cultivation of the granitic soils of Hammonds Plains, Chester, parts of Lunenburg, Liverpool and Shelburne in Nova-Scotia, and also in the neighbourhood of the Pokiok and Meductic in New-Brunswick, the employment of peat, or decayed vegetable matter, as a manure, might be introduced with the greatest advantage. But in order to render these substances most useful they must be made into composts, to restore them to a state of fermentation, and the farm yard of the most humble agriculturist will supply the means necessary for their renovation.

Associated with some of the granitic soils of New-Brunswick, there are rocks known by the names of gneiss and trap. They are composed chiefly of hornblende and feldspar, and the former closely resembles granite. The soil produced by the disintegration of these rocks, differs somewhat from the true granitic variety. Each of these varieties also differs from the strong black mould afforded by the trap rocks forming the North Mountains along the south side of the Bay of Fundy, which will be noticed hereafter.

ESSAY ON AGRICULTURE,

Read before the Literary Society in Truro, in March, 1810—by a Member.

(Continued.)

In the two soils remarkable for the production of Turnips and Wheat, and analyzed by Sir Humphrey Davy, the carbonate of lime forms the principal ingredient in the finely divided matter after it was separated from the sand and clay which naturally predominate in cultivated soils, composing 63 parts out of 100 in the first and 28 in the latter. What a pleasing reflection therefore to the Farmer as well as to the Philosopher that this is the only earth which, comparatively speaking, is completely under the controul of man, having it in his power to add with ease the required quan-

ty, so that the food of plants may acquire the proper consistency and relish. There is not perhaps in the catalogue of human prejudices one more calculated to perpetuate our present imperfect system of Agriculture than the idea too generally entertained by farmers, that notwithstanding they have no pretensions to a knowledge of Chemistry or the laws of Natural Philosophy still they succeed to a certain extent in raising good crops, as did their forefathers, who never heard of such a science or ever thought of analysing the soil. The fallacy of such argument will appear evident when we reflect that every farmer in the act of preparing the soil for whatever crop he intends to produce is virtually trying a chemical experiment, his farm being the Galvanic or Voltaic pile by which he tests the virtues of his composts, the decomposition of certain organic bodies, and reproducing of others, and the result of his labors is sure to be in exact proportion to the degree of uniformity with which he may happen to stumble on the laws of Vegetable physiology, and of which perhaps he is as fully ignorant as of the laws of Chemistry. Vegetables are so constituted that carbon and hydrogen are the necessary food for plants and conduce to the support of vegetable life, their organs seize the carbonic acid gas which comes within their reach, and while they appropriate the carbon to themselves the oxygen is thrown off to renovate atmosphere by its union with the nitrogen rejected by animal respiration. Thus what is noxious to man is rendered beneficial to vegetables, and the oxygen which vegetables are not in want of is separated by them, in its utmost purity for the use of man. The wisdom, the simplicity, and the beneficence of this arrangement are so striking, and address us so powerfully that the mind cannot but make its own reflections, on the beauty and harmony which pervade all nature. An acquaintance with the laws of nature affords the possessor not only the pleasures arising from pecuniary profit, but also the ineffable delight which every intelligent being must experience on contemplating the goodness of the Divine author of Nature, first by governing the material world by immutable laws, and secondly in bestowing upon man the powers of comprehending those laws so far as they may be made available to his wants and comforts. That individuals are capable of carrying on a continued process of the nicest experiments in Chemistry without possessing the slightest theoretical knowledge of it as a science, has been fully exemplified in my own native country. Many individuals who do not know even the letters of the alphabet are celebrated for the manufacture of the Mountain-Dew, the production of which requires a series of complicated chemical operations, viz. fermentation, evaporation, and condensation, all of which are performed with the strictest regard to first principles in Natural Philosophy and which knowledge is acquired by mere imitation.

From these and similar facts may we not entertain the opinion that farmers though unacquainted with science may yet pursue Agriculture agreeable to the laws of Chemistry merely by assimilating their mode of culture to that pursued by others who are better informed, hence the reasons why Agricultural Societies are universally acknowledged of such importance in Great Britain and elsewhere, and we may rationally hope similar beneficial effects from their introduction, if properly conducted, in this country.

Professor Hitchcock of Massachusetts, a celebrated Geologist of that State, remarks—"I find by chemical examination of several remarkable soils that a very minute quantity of the Carbonate of Lime, from one to two per cent. is amply sufficient to render them capable of producing heavy crops of good wheat. I am also satisfied that a soil is incapable of producing crops of good quality if it does not contain the Carbonate of Lime, for this substance is an essential ingredient of the grain." Another Geologist remarks--

"I apprehend that the importance of the Salts of Lime in a soil is not duly appreciated by farmers. The crops may fail although they may have manured and attended them well, but it is almost always easy to find a cause that satisfies in the character of the season, but hard to convince them that the failure may have been owing to the single grain in the hundred of some substance that can be discovered when present only by chemical examination. And yet I doubt not that many a crop has failed for want of that one per cent. of sulphate, carbonate, or phosphate of lime. Facts indeed seem to me to warrant the conclusion that without lime in some form, land will not produce any valuable vegetation." The Salts of Lime alluded to in this quotation are the Carbonate of Lime or common Limestone, which derives its name from holding in combination 43 per cent. of carbonic acid, sulphate of lime, or plaster of paris, or lime combined with sulphuric acid and the phosphate of lime, or lime combined with phosphoric acid. These all abound more or less in vegetables, the sulphate particularly in Clover and other grasses, the phosphate in Barley, Turnips, and Wheat, and the carbonate in almost all plants. It is evident, therefore, that if these ingredients are essential to the organization of plants, they must necessarily exist in the soil or be formed there by a chemical process, or the plants requiring them will fail for want of these necessary constituents. Lime is found in the ashes of vegetables, consequently, must form part of their food. If lime either fresh burnt or slacked be mixed with moist vegetable substances however hard or fibrous, it soon destroys their texture, and forms a mixture the greater part of which is soluble in water, thus rendering what was previously useless, suitable for the food of plants. On the other hand it is injurious to mix quick lime with vegetable substances already soluble in water, or with any sort of dung or other animal manure, lest it takes up too much humic acid. Their, Professor of the Prussian school of Agriculture, thus defines this acid—"Besides the four essential elements of its composition (viz. oxygen, hydrogen, carbon, and nitrogen) Humus also contains other substances in smaller quantities, viz. phosphoric and sulphuric acids combined with some base, and also with earths and salts. Every organic body in life adds to itself the raw materials of nature and forms Humus, which increases as men, animals, and plants, increase in every portion of the earth. It is diminished by the process of vegetation, and wasted by being carried into the ocean by its waters, or it is carried into the atmosphere by the agency of the oxygen of the air, which converts it into gaseous matter. This substance has been called vegetable mould, it is the result of slow decomposition of organic matter in the earth, and is found in the greatest abundance in rich garden mould, or old neglected dung-hills. It varies somewhat in qualities and composition, according to the substance from which it has been formed, and the circumstances attending their decay. It is the product of organic power, such as cannot be compounded artificially. There are terms and phraseology which can only be understood by those acquainted with the technicalities of science, it is enough however for the Farmer to know that these highly fertilizing matters are nothing but dung deprived of its gaseous properties, which as already stated are equally fertilizing by the process of fermentation, and which is the first stage in which manure is serviceable in cultivation. To obtain this valuable food for his crop, the farmer only requires judiciously to deposit the raw materials—the dung in the soil, nature will readily perform the manufacturing process, the carbon, hydrogen, oxygen, and nitrogen, and all the salts and acids are formed without any interference of man, and will pass themselves agreeable to the strict laws of Chemistry. The plants

will arise upon those gases they require for support, by means of their leaves; while their roots are supplied from the humus or soluble matter formed by these gases during the process of their production before they ascend from the soil. Fermentation if suffered to proceed too far, exhausts its powers, and materially lessens its value; the wind and the sun dissipate its virtues, and rain washes, and wastes, its fertilizing properties. Hence it follows, that nothing can be more at variance with a judicious system of farming, than the practice (too common in this country) of allowing Barn manure to lay over during the summer season, exposed to the vicissitudes of the weather, under the pretext that the seasons are too short to cart it out in the spring; and that the seeds of weeds are thereby destroyed, neither of which are cogent reasons for such waste of property.

The difference between fresh and old, or rotten manure, is nicely illustrated by a scientific English Farmer, and related by Sir Humphrey Davy in his Agricultural Chemistry. "I filled," he says, "a large retort capable of containing three pints of water with some hot fermented manure, consisting principally of the litter and dung of cattle, I adapted a small receiver to the retort, so as to collect the condensable and elastic fluid which might rise from the dung. The receiver soon became lined with dew, and drops began in a few hours to trickle down the sides of it. Elastic fluid also was generated. In three days 35 cubic inches had been formed, which when analyzed were found to contain 21 cubic inches of carbonic acid gas, the remainder was hydro-carbonate, mixed with some azote, probably no more than existed in the common air in the receiver. The fluid matter collected in the receiver at the same time amounted to nearly half an ounce.

Finding such products given out from fermented manures, I introduced the neck of another retort filled with similar dung very hot at the same time in the soil amongst the roots of some grass in the border of a garden, in less than a week a very distinct effect was produced on the grass upon the spot exposed to the influence of the matter disengaged in fermentation, it grew with much more luxuriance than the grass in any other part of the garden."

These experiments must carry conviction to the mind, and ought to influence the judgement of every practical farmer, not only as to the mode of applying the scanty quantity which the present system of husbandry is annually decreasing in quantity as well as quality, but his views ought to embrace the general arrangement of his Farm, adopt a proper system of rotation of crops—his barn-yard so planned as to afford every convenience within the smallest compass consistent with comfort to himself and his stock, and which, under proper management, would in a few years not only triple the quantity, but double the fertilizing quality of the whole mass. The first consideration then is to choose the most eligible situation for the erection of his buildings. The centre of the farm, or as near it as local circumstances admit, is in all cases the proper site for his offices, and in planning them he should avoid needless expence, at the same time give sufficient accommodation for carrying on the improved mode of husbandry. These are the principal points to be attended to. The farm yard ought to be placed a short distance from the dwelling-house, should front the south, three sides of it formed by the barns and other offices, and in order to admit the influence of the sun in winter the front should be closed by a moveable low fence, and although a certain degree of moisture is necessary to the process of fermentation, still too great a quantity is not only prejudicial to the manure formed in the yard, but also uncomfortable to the cattle, the rain, therefore, which falls on the side of the roof next to the yard, should be conducted

away by a spout. In order however to give a more accurate idea of such arrangement, I have drawn a rough sketch of a general plan, which may be enlarged or diminished, without altering the design, to suit the views and convenience of the proprietor.

The cultivation of the Turnip is much neglected in this country, especially in this county where the soil is well adapted to its growth. And as no crop whatever tends more to improve and enrich a country than the turnip by the opportunity it affords of cleansing the soil, and the effect it has of producing a large quantity of excellent manure for raising other crops. It is therefore a most essential part of the farmers duty to bring this crop to the highest possible perfection.

I have already stated that sandy soil is the most proper for raising turnips, yet a good crop may be obtained from a soil possessing a considerable degree of clay, provided it be incumbent on an open bottom. The sorts of Turnip most generally esteemed are the Ruta Baga or Swedish Turnip, and the yellow Aberdeen. The Globe and Red top yield more in quantity to the acre but they are not so nutritious, nor do they keep so well as the others. The more clayey part of the farm should be selected for the Swedish turnip, as it will be found to thrive better in a moderately adhesive soil than in one that is very sandy. This plant requires a greater proportion of dung than the other kinds, and being dull in growth it should be sown early in June instead of July, as is frequently the case in Pictou where the culture is fast increasing. The yellow Aberdeen may be sown to advantage about the middle of June.

In preparing the soil for Turnips much labor is necessary if it has not been previously brought under a proper system of management, no certain number of ploughings can be specified as it must be ploughed, harrowed, and weeded until properly pulverized and thoroughly cleared of weeds, but if it has been duly cultivated three ploughings may be sufficient, the first before winter so as the frost may pulverize it, the second after seed time in the spring, and the last a few days before the sowing commences, immediately after the last two ploughings the soil should be harrowed fine to retain moisture, and all the roots of weeds, if there be any, picked out, this is the proper season for laying on the lime and which should be done by spreading it carefully over the surface from one to two hundred bushels per acre, and it must then be harrowed in and the drills formed 26 inches apart by a turning of the plough.

The dung is then drawn out and placed in small heaps, each row spread into five intervals the drills are then split which thoroughly covers the dung, after which the seed is deposited on the top of the drill and carefully rolled in by a light roller. One of the most material points in the culture of Turnip is to preserve the sap in the soil, this is accomplished by the dung being laid on, the drills split, and the seed sown as quickly as possible after each other, and in no case should any more dung be applied than what is covered, or any drills formed but what are sown within each period that the horses are in the yoke, for if the soil in contact with the seed be dry or so far scorched before the seed is sown as to be deprived of much moisture which it naturally holds, the crop is always a defective one even should a shower fall shortly after sowing if drills are allowed to dry before the seed is sown. This circumstance can only be accounted for by supposing that the natural sap in the ground is more nutritious and accelerates the growth of the plant better than rain which cannot partake of such fertilizing qualities from its recent introduction into the soil.

(To be Concluded in our next No.)

Hens will, it is said, be sure to furnish an extra quantity of eggs if you deal to each about a gill of oats per day.

From the Farmers' Cabinet.

PLAN OF A FARM—STONE FENCE, &c.

Sir—I am an Emigrant from the Old Country, where a great portion of my life has been devoted to agriculture, husbandry, and rural affairs. For many years before my emigration, I had contemplated such an event with the greatest pleasure, the utmost of my wishes being to obtain 100 acres of free land, uncultivated and unenclosed—with which I might do as I pleased. But how differently has my lot been cast in this country. However, I still retain all my preferences for such an employment, and nothing gives me more satisfaction than to think and talk over my old battles, which I still hope some day to fight again—for

Where is the man,

However wretched, or however poor,
That will not feed his mind with hope of bliss
And happiness, reserv'd for him to prove?

In the meantime, every hour that can be spared from my engagements is spent in the agreeable employment of hearing and reading all that is doing in the agricultural world; and one of my greatest pleasures is the perusal of your interesting pages. In my book of reminiscences, I often turn to a plan of such a farm as I hoped to call my own, and thinking that some of your readers might be amused with the description, I beg leave to present it for your approval. It is entitled,

"Plan for enclosing land from the waste, and dividing into enclosures of the most convenient form and size; adapted to new lands in America."

A square of land, 700 yards each way, contains 100 acres, and about an acre and a quarter as space for fences: it is proposed to enclose it by dry stone walls. The outer fence to be carried first, after which, the four inner or cross walls, according to the accompanying drawing:

16	8	16
8	4	8
16	8	16

"Plan of enclosing Land," &c.

Thus the land will, in the easiest and most convenient manner, be at once divided into 4 fields of 16 acres each: 4 of 8 acres; and a middle apartment of 4 acres to be appropriated to the home-stead, house, barn, stables, cattle-sheds and yards, garden, orchards, and enclosures for raising seeds for the use of the farm and garden. Cultivate, at first, the 4 fields of 8 acres only; the rotation of crops being roots, barley or oats, clover, wheat. The 4 fields of 16 acres each might, in the mean time, be top-dressed with lime, marl, and compost, and fed with cattle and sheep, to be regularly changed from pasture to pasture, upon those fields not devoted to the hay crop. When, at any future time, it should be deemed desirable to sub-divide those fields, two walls, carried in the direction of the dotted lines, will do the business most effectually, turning them into 4 fields of 8 acres each. This addition to the cultivation of the farm, will be found sufficient for some considerable time, the remaining two pieces of 16 acres each, still continuing in pasture;

for the secret of agriculture is to plough no more than can be well dressed and cultivated. These sub-divisions can however, be continued until all the fields are square and contain 5 acres each. It will be observed, that on this plan all the fences will be straight, and the land thrown into such form as will admit of being cultivated with the greatest ease and economy.

STONE FENCE—PROPER CONSTRUCTION.

My decided preference for stone walls over other kinds of fence, has been produced by an opportunity of forming a judgment, to an extent which scarcely any other person can expect to be favored with; and in every case, their superiority is scarcely to be estimated. In the first place, as a writer observes, they are *major* from the day of their erection, and are most easily kept in repair, for if a portion should fall, there are the materials on the spot to rebuild it, which is but the work of a few minutes. And if, at any time, it be desirable to shorten the road from the homestead, or to save adjoining crops from the injury of passing carts and cattle, it is only to make a temporary breach and put in a gate, which can be removed and the wall rebuilt in a very short time by any laborer on the farm. Then the saving of land is very great, as the plough might and ought to pass close to the foot of the wall, by which the weeds and their consequences are destroyed; this gain will be equal, in every year, to the interest of the sum expended in the erection. But the chief recommendation of stone fences is, in the shelter which they afford to cattle and sheep from every wind that blows, and the facility which they afford for the erection of temporary or more permanent sheds at the angles, to which the cattle or sheep may retire, and be fed under cover, in stormy weather. Indeed, in every point of view, stone fences have ever been with me the *ne plus ultra* of good management. I know that in many situations they are not to be obtained; but where stone is plentiful, they will be found the cheapest fence in the end, as well as the best by far, both at the beginning and end. The expense of erection must vary according to circumstances. I have had the work done for \$2 per perch of 22 feet in length, by 6 feet in height, quarrying the stone and carrying included; while in some situations, I have given three times that sum for the same work: and although it might not be practicable, in point of expense, to enclose the whole farm with stone walls at first, yet, if at leisure times stones are carried to the line of the intended fence, and there deposited, to be put up when sufficient but for the erection of a single perch at a time, the work would be accomplished sooner than could be imagined, *once and for ever*. I ought to say, however, that I have learned, by long experience, it is best in all cases, to remove the surface of the earth upon which the wall is to be erected, for I have had miles of wall completely ruined by the frost of winter, which by penetrating the surface where it had not been removed from under the wall, has lifted it up; and when a thaw has taken place, a subsidence in the surface has done the business; those portions of the wall which have not fallen have been so shaken and twisted and displaced, that the appearance has led me to wish that it had all gone; while all attempts at repairing have only added to the unsightly mass.

I have never erected walls less than 5½ feet under the coping, 6 feet in their whole height; if they were lower, the cattle would displace the top stones by rubbing, and many sheep would leap them; besides, in point of shelter, the foot and half on the top is worth more than three feet at bottom. Finishing the coping with mortar, in the neighbourhood of the home-ten, as well as at every gateway, is an excellent practice; the expense is not great, but the advantages are.

When I look upon this "Plan of a Farm," and in imagination have covered the different enclosures with heavy crops, and stocked them with cattle and sheep, I am sometimes led to believe that I am placed out of my element; but resignation is the part of true wisdom. In the mean while, when I can steal an hour from my avocations, I cross over to Jersey by one of the steam boats, make for the nearest wood, and luxuriate in the shade. But these are angels' visits, *few and far between*; few as they are, however, they are sufficient to satisfy me that the general belief, that New Jersey lies under the ban of sterility, is unjust, and I appeal for the truth of what I say, to many of the land-holders themselves, who, not satisfied with crops in succession, must have double crops—a crop of grain, &c., and a crop of weeds at the same time, the latter often predominating.

Some time ago, I saw a person earthing his corn with the plough at the expense of his *second crop*, which had attained the height of

his horse! To be sure, there are honorable exceptions to this too general practice, but it must be admitted, they show the impression of the angel's foot upon them.—The prettiest spot, and perhaps the most fertile, within the limited range of my peregrinations, is at Cooper's point, a triangular field adjoining the house, at present under a fine crop of squash or pumpkin; some time since, I saw a man with a large horse and a very small plough, cultivating the intervals between the rows, one furrow at a time, on a soil where a sharp knife and a couple of rabbits would have been equal to the task. Many of the weeds escaped the operation of the plough, which, I supposed would have been immediately eradicated by the hand; but I found, on my last visit, that they had been preserved, and in consequence of the culture which they had received, were most luxuriant, promising an enormous crop of seed and early maturity.

But I acknowledge that my present situation has advantages for which I ought to be grateful. I can, in the way above mentioned, visit invisibly my farming friends. Plough with one, sow with a second, reap with a third, pick fruit with a fourth, animaladvert upon the labors of a fifth, enjoy without envy the large possessions of a sixth, and hope that a seventh will get his farm into better order, and repair his premises before I visit him again, and all this without either labor or cost on my part, according to the sentiments of that fine old song, which ought to be in the mouth of every American farmer, and which I entreat you to transplant into your pages for the use of future generations, marking the verse before the last, as expressive of the feelings contained in the latter part of this my long, and I fear, uninteresting communication.

T B. W.

Kensington, 29th July, 1838.

FARMER'S SONG.

No glory I covet, no riches I want,
Ambition is nothing to me;
The one thing I beg of kind Heaven to grant,
Is a mind independent and free—

With passions unruffled, untainted with pride,
By reason, my life let me square;
The wants of my nature are cheaply supplied,
And the rest is but folly and care.

The blessings which Providence freely has lent,
I'll justly and gratefully prize;
While sweet meditation and cheerful content,
Shall make me both happy and wise.

In the pleasures the great man's possessions display,
Unenvied I'll challenge my part.
For every fair object my eye can survey
Contributes to gladden my heart.

How vainly, through ignorant struggle and strife,
The many, their labors employ!
Since all that is truly delightful in life,
Is what all, if they will, may enjoy.

HARVESTING INDIAN CORN.—It appears from many experiments tried in the United States that the old custom of topping Indian Corn stalks for fodder diminishes the crop nearly one fifth, and that the most profitable way of harvesting both the corn and the stalks is, to cut it up close to the ground as soon as the grain is glazed, or so hard that it cannot be cut by the finger nail, and without binding it into sheaves, form it into stooks well bound together at the top, but considerably spread at the butts. In about a fortnight it will be fit to husk, and the stalks may either be stacked, or stowed in a mow formed of alternate layers of stalks and straw. The advantage of this method is, the corn is very nearly as heavy as if the stalks had not been cut; there is little or none damaged by wet—the fodder is of superior quality—and if frost should happen it cannot injure the corn after it has been cut a few days.

EFFECTS OF TEMPERANCE.—Among the Quakers, one in ten lives to eighty years of age; of the general population of London only one in forty reaches that age.

ON MANURES.

"In the year 1806, I was one afternoon leaning over the grave of Burns, and reading the plain inscription on his tomb-stone erected in the church-yard of Dumfries. This town was the concluding scene of the Scottish Bard; and here terminated his follies and his crimes, the last breathings of his muse and of his life. I was indulging in one of those moods, in which pain and pleasure are so equally blended, that the mind is thrown into a sort of delightful melancholy: for while I retraced many gay and lively recollections, I was forced by present objects to check the rising emotions, and embitter them with grief. His enchanting and splendid verses were contrasted, in the eye of fancy, with the dark shades of his character; the strength and manly independence of his intellect with the silly and inconstant waverings of his moral perceptions; the bright and promising morning of his life with the ominous and black cloud, which settled on the evening of his days. I was rivetted to the spot; tears filled my eyes; my whole soul was absorbed in contemplation; it was a moment of rich enjoyment. A slow and fluttering step struck my ear, and turning round I discovered an emaciated, but venerable figure approaching, in the last decrepitude of old age.

"Stranger, said he, you are paying the tribute of respect to the memory of our poet; and I must beg pardon for this abrupt intrusion."—"There was such an air of good nature in the old man, heightened by the sense of his helplessness, that I addressed him frankly in reply, and showed no reluctance to engage in conversation.—He sketched to me, with all the loquacity characteristic of his years, the habits, the faults, the drunken broils of the man, while at the same time he appeared an ardent admirer of the faithful colouring, the playful wit, the winning sprightliness of the writer.

"Come, said he, along with me to the hillock where Burns alternately brutified his senses, or exalted them by the varied inspirations of his lyre." I accompanied him, and we ascended together the mound of earth, on the top of which is the seat—once the favourite haunt of this immortal and extraordinary genius; and alike remarkable for witnessing his fits of intoxication, and in favoured intervals, his effusions of poetic rapture. It is still shown to the curious, lies within the precincts of the town, and commands a fine prospect of the surrounding country. We seated ourselves on the grassy turf; and grown familiar by an interchange of sentiment, we conversed on the most intimate footing.—From Burns we soon passed to other topics, possessing novelty or interest.

"The country, said I, in every direction around, and wherever I have travelled, is mostly arable, and highly cultivated. The red and white wheats prevail universally, and are sown seemingly by the farmers in equal quantities."

"Yes; replied the old man, there is a wonderful change in this district, since I was of your age; for I can recollect the time, when there were neither inclosures nor wheat in all this country."

"Is it possible, I answered, that all these improvements are of so recent a date, as to be within the reach of your remembrance? I should like, if you would relate to me the ancient state of the country, the condition of the tenants, and the progress of agriculture."

"That I shall do with all my heart, rejoined my acquaintance, his eyes brightening as he spoke; for like myself he seemed fond of the subject.

I was born, continued he, in 1719 in Lochmaben, and am now 87 years of age. The oldest thing I recollect, is the great riot which took place, throughout the whole of this shire, in 1724, in consequence of the landed proprietors beginning to enclose their estates on purpose to stock them with black cattle. The small tenants were turned out, to make way for this improvement; and the ground was then fenced by a sunk ditch and wall, called then park-dikes. Great distress was felt in the country on account of this alteration; and the tenantry rose in a mob, and with pitch-forks, spades, and mattocks proceeded to level all these enclosures, from the one end of the country to the other. My father was unfortunately concerned in that disturbance; and after it was quelled by the help of two troops of dragoons brought from Edinburgh, he was banished to the American plantations for his crime. I lived afterwards, and was brought up with my uncle in Nithdale, about 20 miles hence, who rented there a small farm of 100 acres, and I assisted him in working it. The general produce of all this country was grey oats; although the gentlemen in their croft or best lands raised also a little bear or bigg, and some white oats; yet the soil was by all men believed incapable of producing wheat;

and accordingly it was never tried. Our common food consisted of these grey oats parched, or burned out of the ear and ground in a hollow stone by the hand; or of milk; or of kail; or of grouts; with never more than one ewe killed at Martinmas for the family. The houses were generally built of mud, and covered with thatch; and the cloathing was of FRAYSING—a coarse twilled stuff manufactured at home, from the black and white wool mixed together. Hats and shoes were only worn by the gentry; and even they often appeared at church with a coat of their wives' making. Potatoes were not introduced till 1725, and at first were cultivated with much care, and in small patches. They were carried to the great towns on horses' backs, and retailed at an high price by pounds and ounces. It was about the year 1735, when they came into common use, and before that period, there was often great scarcity of food, sometimes bordering on famine in this fine country, which was then accounted incapable of raising bread for its scanty population. Dumfries at present contains more inhabitants than were then in the whole county: and 20 acres are now more productive than 200 in those days. Such was the low state of husbandry, that the principal supply came from Cumberland, on the other side of the Esk; and I myself have witnessed on the Wednesdays, which from time immemorial have been our market days, sad scenes of real distress occasioned by the swelling of the river, which prevented the carriers from bringing forward the meal; as the want of bridges often interrupted all communication.

I have seen, proceeded the old man with greater animation, and pointing with the staff in his hand, all that country before us covered and overgrown with whins and broom, and not a single vestige of these hedges and stone walls which cross and intersect the whole landscape. A few sheep and black cattle picked the scanty herbage; and they were prevented from eating the growing corn, either by a herd-boy who tended them, or by a temporary fence erected every year. The common people very often collected nettles in the field, of which they made a kind of coarse soup thickened with oatmeal and enriched, on great days, by a piece of butter as a luxury. The state of Scotland from my birth up to 1745 was miserable in the extreme: the lower classes were ill fed, ill clothed, and ill lodged; and there was no revival in their circumstances till the introduction of potatoes and lime.

Of potatoes and of lime, repeated I, I can perceive some reason why the first should improve their condition, but what connexion had the last with it?

Lime, continued my instructor, operated with more success on the prosperity of the country than potatoes; and I look upon it as the best friend we ever saw.

Explain yourself said I; for all this seems mysterious, and I cannot conceive, how lime could have wrought such enchantment.

To your satisfaction, then, I shall account for it; and my present views have not been altered for the last 20 years of my life. Seventy years ago, in 1738, there was no lime used for building in Dumfries, except a little made of coeckle shells, burnt at Colvend, and brought on horses' backs a distance of twenty-two miles. All the houses were either composed of mud-walls, strengthened by upright posts and these bound and connected together by wattled twigs; or they were built of stone laid, not in mortar, but in clay or moist loam. The whole town was a collection of dirty, mean, and frail hovels, never exceeding one story; because the materials had not strength or firmness to bear more. These buildings were so perishable, and stood in need of such constant propping, that people never thought of expending time, labour, and money on the comforts of a habitation, which was to fall into ruins during the course of their lifetime. Old Provost Bell's house, which was founded in 1740, is the only one now remaining of the ancient town: and although the under story was built with clay, the two upper were laid in lime which is the cause of its long standing.

Between the years 1750 and 1760, the old mud-walls gave place to those of stone laid in mortar; and from that period, there has been a visible and rapid improvement. Houses acquired permanence, descended from father to son, and the labours of one generation were enjoyed by the next. To lime, then, we owe these stately edifices, with all the comforts and conveniences they confer; and it hence contributed, in a remarkable degree, to the refinement and polish of private life.

* A species of greens used in Scotland for broth and called Colewort.

† Furze.

If to this fossil, continued the old man, we are indebted for the stability of our towns, we are under greater obligations for its unprecalculated effects on the powers of the earth. Wheat and clover would not thrive in the county of Dumfries, or in the Stewartry of Kirkcubright, till lime was plentifully incorporated with the soil; and after its introduction, the farmers became rich, land advanced in value, the produce was multiplied tenfold, population increased, and these counties quickly rose to their present unexampled prosperity. In my younger days, it cost much toil to raise on my uncle's farm 2 or 2½ bolls of grey oats per acre, and after taking one or two crops, the ground lay for four or five years in natural grass, which was coarse and unpalatable to the cattle. The rent—only 2s. 6d. per acre—we found great difficulty in scraping together, and we fell on a thousand shifts to accomplish it. Now; the same farm is rented at £3 10s. per acre, is kept under constant cropping, rears excellent wheat, is wholly drained and enclosed, supports a genteel family in all the comforts of life, and one year's rent of it is double the sum, which could have purchased it altogether 65 years ago.—It is lime, that has warmed and meliorated the soil, that has endowed it with productive powers, and that supports all the plenty and prosperity you have been admiring, as you travelled through the district.—He paused; I looked in his face, and a glow of animation had overspread the paleness of age. His right hand was extended in an impressive posture, and his left rested on his staff. The pencil of Titian could not have done him half justice. I rose and bowed; we came down together, and I retired to my apartment in the inn, to note down the particulars of this interesting conversation.—*Extracts from Agricola, Letter 27.*

BUTTER.

The practice of the Dutch in Holland and of the Germans in Pennsylvania of cooling their milk immediately after it is drawn from the cow, is calculated to abridge the labor of the dairy and to improve its products. During the hot weather of summer milk becomes coagulated in 24 hours after milking, and before the whole of the cream has risen to the surface; after which no more cream rises. By reducing the temperature nearly all the cream rises in 24 hours. In Pennsylvania milkhouses of stone or brick, built over springs, are common. In these the milk is kept in a temperature of 50 to 55 degrees, although the exterior heat may be 90. When springs are not convenient, milk cellars are constructed under ground, and water to reduce and keep down the heat supplied by pumps. In Holland, where springs do not abound, every dairy is provided with a water tight pit, termed a *hoelbak*, built of brick or stone; they are about six feet in length, three in breadth, and two in depth. These are filled with water by a pump, which is generally seen at one end, and the fresh drawn milk, in brass pitchers made for the purpose, is deposited in it for two hours and frequently stirred; this cooling process is found of great advantage in causing the cream to separate rapidly and abundantly from the milk. The milk is then strained, placed in shallow pans, and remains in the milk cellar, which adjoins and is sunk a few steps below the *hoelbak*, where it remains for 24 hours, and is then skimmed.—*Cultivator.*

CAUSES OF THE DECAY OF TURNIPS.—The following is submitted to the opinion of all that are interested in the inquiry made in the first number of the present volume of the New Genesee Farmer, which is for the cause of the decay of Ruta Baga Turnips.

I have come to the conclusion that early sowing in warm seasons, will lead to the true cause. When turnips are forward in the season, they fail for want of sufficient moisture during the extreme warm and dry weather, which effects the heart or centre of the turnip, and commences the decay, which first appears by the top turning yellow when the outside appears sound and healthy. This effect is produced on large turnips, when small ones will escape. Another cause may sometimes be observed. After the turnip is nearly matured, wet weather will produce a new life, and cause them to crack open, and during warm weather, water standing in the crevice will cause the decay.

It may be well to state, that the turnip and cabbage tribes, flourish best in a climate something cooler than the summer in this section, and that warm, dry weather is equally injurious to both. Therefore, the time of sowing should be delayed as long as possible, and have them mature before the winter too nearly approaches, unless some is wanted for early use.—*Genesee Farmer.*

From the Yankee Farmer.

MANURE—BEET—ROCKWEED—KELP—RUTA BAGAS.

I feel myself called upon to say something by way of offset for the great pleasure and profit I have received by perusing the communications of practical Farmers in our several Agricultural Journals, on the important subject of the cultivation of the soil. I do not, however, expect to repay all the obligations I feel in this respect by whatever I can say of my own practice as a farmer.

I am pleased to see an increased interest taken among Farmers in augmenting their manure heaps. It is indeed beginning at the right end. It is in this alone that can dispel the darkness which has long hung over our New-England Agriculture. Many things, offensive to good taste and neatness, when lying about our yards and fields, if conveyed to the compost heap, make very valuable additions to it.

Peat is of great value for the basis of a compost heap; or for laying in the yards where swine are kept. I have a cellar under the stable where my stock is kept in which is deposited the materials collected for making compost. I took fifty loads of forty bushels each, from this cellar last spring, of first rate compost manure, made by the droppings of two cows during the fall and winter, and two horses that work on the road most of the time. To this was added, as occasion required, soil from the road side, and other places, and swamp muck obtained by ditching a low meadow. This season I think I have added much to the value of this compost, by adding several loads of rockweed and kelp; which by its highly putrescent qualities, acts an important part in altering and decomposing peat, muck, and other earths with which it may come in contact. My manner of using it, is to put a layer six inches thick in the cellar and cover it with a foot or more of peat. The swine, which are always kept in the cellar, are left to do their rest, and in their eagerness to come at the Kelp, they soon have it well incorporated with the other ingredients.

Many of the *knowing ones* shook their heads at me for carting the kelp so far (13 miles,) but I am confident I am well paid for the expense, by its value in the compost heap. For those that are located near the sea shore, this is indeed a valuable resource; and I have no doubt that it may be carted eight or ten miles with manifest advantage. In some parts of Ireland it is carried forty miles, and it is thought to be of more value in land than near the shore.

A correspondent in your last No. asks if early sowing is the cause of the decay of Ruta Bagas? I had this season three lots of Ruta Bagas; one lot was sowed the first week in June, one lot about the twentieth of June, and the other was sowed the first week in July. They were harvested the last of October, and there was no perceptible difference in the lots—about one fifth of the whole were rotten and were carried to the compost heap.

Hanson, Mass. Feb. 9d, 1841.

WHITE CARROT.

Extracts from a letter from Sir C. M. Burrell, Bart. to the Editor of the Sussex (England) Express:

“*Knepp Castle, November 3.*”

SIR—Perceiving on perusal of your last Express, your notice respecting the premiums offered for specimens of Turnips and Mangel Wurtzel, with accompanying statements of their culture, I trouble you with the following statement in support of my last years published opinion on the preference of the white cattle carrot over that of the parsnip for agricultural purposes, and which was made in consequence of a letter from a correspondent in the Lewes Advertiser, advocating the growth of the parsnip, in which 500 bushels per acre was stated as the produce. Conceiving from my then crop of white carrots, grown on a very indifferent field, the yield of which was 1000 bushels per acre, that their culture would be more advantageous on stiff soils than that of the parsnip, with a return of about a moiety of the produce only. I laid a comparative statement of my crop before the public, that agriculturists of intelligence and spirit might try the results by sowing both sorts on a similar quality of land. But satisfied as I am myself of the preference of the white carrot on my farm to all other roots fit for cattle. I again sowed four acres broadcast on land of better quality this year, and so far as experience shows, in the raising and housing about half my crop, there will be, as near as we can de-

terme, about 1300 bushels to the acre, after separation from the green tops; and considering the depth from whence their nourishment is obtained (in one instance no less than 3 feet 5½ inches), I do not consider it as a very scourging crop." "Freeworking, deep soils, well and deeply drained and subsoiled suit best for the cultivation of the White Carrot."—*Yankee Farmer*.

WHITE CARROT AGAIN.—A few weeks since, we gave an account of this root, valuable on account of its superior yield, its excellence for the table, and convenience in digging, on account of its growing partially out of the ground. The specimens at our office have been examined, dissected and remarked upon by many good judges of vegetables. Some of them think that it is a hybrid produced by a cross of the carrot and parsnip; others that it is a distinct species, and should have some other name. In shape, this carrot does not taper off like most other carrots, gradually from the top, but it holds its size in some cases till near the middle of the root. The tops are like those of other carrots. There is a layer on the outside of about one third of an inch in thickness, on a carrot of middling size which may be readily peeled off; this has a strong taste of fennel; it also has the smell of the parsnip, and a slight parsnip taste is perceptible. The taste of the carrot is not so readily noticed, and in some it would not be perceived at all. The inner part has a different taste; in some that had laid a short time in our room, and become a little shrivelled, the part within the layer we have named, had the taste both of the chestnut and the Ruta baga. When boiled it is sweet and excellent, but no peculiar taste that would induce a person to suppose it was a carrot or parsnip. It is far superior to the common yellow carrot, and equal, or superior to the fine, tender, delicate kind called "early horn," we prefer it to a good beet, but should choose to have both for the sake of variety. In our previous account we showed that the white carrots were twice as large as the long orange, or yellow Altringham, sowed promiscuously together. We think that so great a difference was produced by the disadvantages of a dry soil, dry season, and want of manure, which the white bore remarkably well and produced noble roots. Under favorable circumstances for a good crop, we think the difference would be less, but still important, so much so, as to be worthy of particular attention. We consider the property of this root to bear up under disadvantages among its great excellencies.—*Yankee Farmer*.

From the Cultivator.

RESPECTABILITY OF THE PROFESSION OF A FARMER.

"The Roman in the better days of his country, knew something of the dignity of labor, but in the long darkness of Gothic night which followed, war and the chase were the only pursuits supposed to befit those of "gentle blood." In other words, butchery and rapine, during a portion of the time, and the pursuit of a hare or deer, with hounds and horns and troops of menials, during the remainder, were supposed to be the only occupations becoming the "high born and noble." The tiller of the soil was a serf—a bondsman. The Feudal age, with its barbaric pomp, has passed away. The plough has passed over the mouldering relics of baronial pride. The cultivator of the soil is no longer a beast of burthen; his occupation has risen from a mere handicraft to a profession calling for the exercise of talents, and the application of scientific principles;—but notwithstanding all this he has not yet attained to the true relative dignity of his station among his fellow men. Among the privileged orders of the old world manual labour is still regarded as a degradation. In our own country, though the feeling does not prevail to the same extent, it is easy to discover traces of the same absurd and unmanly prejudice. How rarely do we witness an instance of a professional man, or a merchant voluntarily educating his children to honest toil—to become producers instead of consumers? and worse than this, the farmer himself, false to the dignity of his calling, not unfrequently exhibits an itching desire to save his children from a life of labour! This diminution of producers and increase of consumers, is one of the marked causes of the disasters which have fallen on our nation. In this mania to escape labor, every profession and every pursuit not requiring bodily toil has been overstocked. What is more common than to witness in some of our smallest villages, which should scarcely support two lawyers, a score of attorneys, rendered greedy by want, and obliged to promote litigation to obtain their bread? "Two

doctors riding on one horse," has passed into a proverb. Hundreds of young broken merchants, many of them the sons of farmers, and who started life with a capital, which united with industry would have made them prosperous and independent farmers, are now eating the bitter bread of poverty. Politics too supports its class of non-producers, and its avenues to preferment are choked with crowds of eager votaries, four-fifths of whom must necessarily be disappointed;—and even the fortunate few, at the first giration of the political wheel, are cast upon the world—out of business,—and with habits acquired which would render business irksome, and connect the idea of manual labor with that of intolerable degradation. How many such men might exclaim in the spirit of Woolsey,

"Had I but served myself with half the zeal
I served my party, I should not, in mine age
Have been left naked to mine enemies."

There is another class of non-producers not to be omitted in this catalogue—the speculators—those lords of paper domains—those rare architects, who like the Genii of the Arabian tales, built up in a single night gorgeous cities in the distant wilderness—those alchemists who beat them of old, for they discovered that wondrous elixir (found to consist of avarice and credulity in equal parts) which transmuted every thing to gold—Bangor pine trees, and Rocky mountain "city lots!" but their gold—"like to the apples on the dead sea's shore, all ashes to the taste,"—has proved but a sorry counterfeit.

It is not my design to invoke prejudice against the learned professions, or against any honest calling. The merchant is a necessary instrument of the farmer. He works for the farmer and he receives his pay. He receives his products, or the avails of them—transports them to distant markets, and brings him back the products of other countries and climes. The lawyer is a necessary evil so long as vice and perversity shall continue to exist in the world. He is as necessary to repel the encroachments of vicious and quarrelsome men, as the dog and the rifle are to drive off the assaults of noxious beasts and vermin. We cannot dispense with the leech until the "ills that flesh is heir to" have become extinct before that "physical perfectability of the human species" whose possibility is contended for by Dr. Graham! It is to be feared however that the time of its accomplishment is yet far distant. Though these and various other classes of nonproducers are to be tolerated, may *respected*, where they work worthily in their vocation, though they are to be placed on a social equality with any other class of citizens, I ask are they to be looked up to as a superior or privileged caste, by the producers? Shame on the thought! Does any farmer think he is placing his children in a "higher rank," "making gentlemen of them," by making them Lawyers, Doctors, or Merchants? Shame on his abject soul! Does any young son of the soil court and repine after that patent of gentility which is conferred by the tailor, the jeweller, and the boot maker, on the sons of idleness? Away with such a serf in spirit!—let him begone to his idols! * * * * I would not preach up a crusade against the legal or any other profession. I would not drag them down, but I would raise the producer up—raise him up in his own estimation. I would sound a trumpet peal in his ear to arise and assert the dignity of his calling. Man was formed to labor and to be useful. The primal curse of labor was a blessing in disguise. There should be no drones in the great hive of humanity. Labor ennobles its followers. The farmer as he goes forth in his fields to converse with nature and nature's God, feels his soul dilate and expand under the benign influences about him. The bright sun, the refreshing breeze, the genial shower, are all blessings from a parent's hand. As he casts his eye upon the distant prospect, glittering in the auroral light of spring, or fading into the sober hues of autumn, his feelings harmonize with the outward agencies which surround him. He stands as it were in the visible presence of his Creator, and passion and selfishness are rebuked. There is no hum of excited crowds to drown the small still voice of reason and conscience. He stands erect in the conscious dignity of a man, honest toil hath given him the nerves and physical vigor of a man—reason, reflection, conscience, and brotherly love have expanded his soul to the dimensions of that of a man. The true farmer is a philanthropist, he labors, not only to provide for his own wants, and wants of his family, but, he is urged by a constant desire to leave the world better and more beautiful than he found it,—to add to the stock of human comforts, and render them accessible to the poor and the lowly. * * * * Lord Townsend, who received the appellation of *Turnip* Townsend from the wits of a licentious

court for having introduced the culture of that useful vegetable into England, has conferred a more lasting benefit on his country than all the popinjays who have spread their butterfly wings in the sunshine of Court from the days of William the Conqueror to those of Queen Victoria. Was it Dr. Johnson who remarked of some one sneeringly, that his conversation savoured of bullocks? Yet the world would have been better off without a Johnson, than without a Colling or a Bakewell. Every generation produces its literary great, but not every generation nor every age produces men capable of originating great and signal improvements in those important departments of human industry which give assistance to millions. Why should the breeder be sneered at? Is not the artist eulogised? And what is the breeder but an artist in the great studio of nature? The one chisels the shapeless marble into forms of beauty—the other moulds flesh and blood, and gives beauty and value to the unsightly and the worthless. Is the latter pursuit then unworthy of a gentleman and man of taste? Is he who strives to beautify and adorn this fair world, instead of a gallery or a palace—ho who labors to restore animated nature to her forms of primal beauty, engaged in a vulgar or tasteless pursuit? It strikes me on the contrary that no occupation is more congenial to a pure and elevated taste. No man more than the agriculturist has constantly presented before him images of inward and outward beauty. Books and the treasures of art are as accessible to him as to others,—nature and his fellow man wear for him their loveliest aspect. The merchant is brought constantly in collision with venality and avarice—the politician with selfishness and ambition, and both learn to disesteem their fellow men. The physician spends his life amidst ulcerous sores, the pangs and the moanings of decaying humanity, and nature must ever wear to him the aspect of a great charnel house. The lawyer is called to probe the yet darker ulcers of the soul. His eye constantly rests upon guilt, and his ear must drink in its polluted tale. Envy, malice, hate, avarice, and all the blacker passions, assuming more specious names, claim him as their champion. If he resist, as some have nobly resisted, he must yet meet and combat them; he must live in their polluted atmosphere; he must feel that they are the elements of his subsistence; he must feel that he lives on, and out of the contentions of his fellow men. The occupation of the Agriculturist does not of itself necessarily bring him in contact, or but slightly, with man's moral or physical infirmities. The world is not to him a great "whited sepulchre." Its sunny smile is not a mask hiding the features of vice and woe. A demon scowls not forth on him from beneath every flower that throws beauty and perfume over the path of life. He rejoices that he is a man—he feels a fraternal love for the great brotherhood of man. And shall the agriculturist "look up" to men, who if not his inferiors are in no respect his superiors? Shall his sons flee away into other occupations that they may be "gentlemen?" A better day I trust is dawning. The time will soon come, if it has not now come, when no talents however great, and no education, however finished, will be supposed to be thrown away when devoted to the improvement of agriculture. Let the Agriculturists assert the dignity of their calling, and who dare gainsay it? * * *

II. S. R.

MANURE.—Arthur Young took five equal portions of a field, one portion of which he manured with dry cut straw; a second with straw soaked five hours in fresh urine; a third with straw soaked in like manner fifteen hours; a fourth with straw soaked three days; and to the fifth portion he applied nothing. The whole was tilled alike, and sown with grain. The product in grain, of the first was thirty nine, of the second fifty, of the third sixty-three, of the fourth one hundred and twenty-six, and of the unmanured portion nine. In weight of grain and straw, the product of the several portions, in the order above named were found to be, 100, 120, 130, 300, and 48. This experiment affords a pretty conclusive demonstration of the value of vegetable matter as food for plants, and particularly of the fertility imparted by the urine of animals. It indicates the propriety of so constructing our cattle yards and stable floors as to concentrate this liquid, and where there is no cistern to retain it, of applying straw or other litter to retain it.

T. S.

THE SEASON.

This continues something warmer than the average of Nova Scotia summers. Grain is free from rust near to Halifax, and a heavy crop. Potatoes in general promise more than an average crop. Turnips that were sowed early have succeeded well; this crop for the two last years had been so generally destroyed by the turnip grub, that few have been sowed this season; but those vermin appear to be greatly diminished, and will probably do but little harm this year. Showers have been frequent, but small, and the brooks are rather low. Very rarely has there been a better crop seen on the clayey hills. From this description we must except a considerable part of the County of Hants, which has suffered much from a severe drought, attended, in many places, with swarms of Grasshoppers. These insects have also been very destructive on some small tracts which did not suffer with drought. We may also except from the general description a part of the Eastern shore near Causo, where, owing to the abundance of rain in June there is an uncommonly large crop of hay. We have not had on the Southern coast the usual allowance of chilly South West sea breezes in the afternoons of our warm days. Sometimes after a shower a North wind has sprung up, but almost invariably within twenty-four hours it has shifted to a point South of West, with an increase of heat. The Blueberry, which had failed for some years, produces an uncommon crop. And the Beech, which has generally failed ever since the commencement of the cold seasons, is now covered with nuts.—Hay in the County of Digby is, this season, above an average crop.

When Potatoes are nearly ripe the leaves begin to fall from the stems, and the surface of the ground between the rows is laid open to the sun; it will be necessary at this time to go over the field and carefully cover all the potatoes which have their ends rising above the surface, as they would if left uncovered soon acquire a green color and be rendered unfit for use, and should early frosts happen, these uncovered parts would be frozen, and if not carefully separated in digging would not only rot in the cellar themselves, but also rot the sound potatoes in contact with them. This precaution is particularly necessary for the red apple potatoe, now very commonly planted, as it forms its crop very near the surface.

The 200 copies of Jackson's Treatise upon farming and dairy Husbandry have arrived, and any of the Agricultural Societies can now supply themselves with this valuable work by applying to the Central Board. It will be remembered that a Resolution of the Central Board engages to give to any Society who may purchase from them any number of copies of this work, an equal number at the expence of the funds of the Central Board, so that the Societies will in reality be enabled to procure it at half price.

The Stallion purchased for the Board, in Canada, has just arrived in Halifax.

From intelligence received there is reason to suppose that part of the Stock ordered from Britain are now on their passage. There has been some delay in procuring Stock and Implements of Husbandry from the United States, caused by information from the Agent, which may be the means of procuring a better description of Stock than would have been sent, had the order been literally complied with.

A Farmer on Long Island on the birth of each child planted a hundred Locust Trees, and the proceeds of the hundred trees, as his children came of age, afforded each a handsome out-fit.

MINUTES OF THE AGRICULTURAL BOARD.

At a meeting of the Central Board of Agriculture held in the Province Building, August 7, 1841,

Present:—The Hon. JAMES McNAB, WILLIAM YOUNG, EDWARD ALLISON, and EDWARD PRYOR, JUNR., Esquires,

Read a letter from Edward Sutherland, Esq. a Member of the Board and the President of the Cape Breton Central Society, dated 23d July, stating as the sum of £20 required by the Act had been made good, that the Society desired to import, through the agency of the Board from Britain, 3 Southdown rams, 3 large new Leicester do., 6 Berkshire Boar Pigs, 1 Small's Plough, and 10 copies of Jackson's work. and inquiring whether certain implements ordered by the Society to be given as prizes could be obtained from the Board and when.

Directed a reply, expressing the regret of the Board that the former letter from the Secretary of the Society had not been received till after the general order for Stock had been despatched, and besides, had not contained any request or intimation from the Society that the Stock and implements should be imported by the Board: but that the Board, now that the intention of the Society was made known, would desire their agent in London, by the next steamer, to include the Stock, together with one of Small's ploughs, in his general shipment, if it could be effected, this fall, and would order the other implements at once from Boston.

Read a letter from the Rev. Mr. Robertson and James H. Smith, Esq. Secretaries of the Annapolis County Society claiming to be accounted a Central Society, and as such entitled to the grant of £75.

Directed an answer explanatory of the reasons which induced the Board for the avoidance of local jealousies or any appearance of partiality, while highly approving of the spirit and objects of this Society, to award to it but £50 of the £75 in the first instance, and stating that the remaining £25 would be assigned to it, if no other Society should be organised within a short period that might appear to the Board entitled to a share of the grant.

Read a letter from Mr. Norman McLeod, junr. Secretary of a Society formed at the Gulf Shore near Peggwash, in the year 1839, stating their annual contributions to exceed £10, and requesting a share of the Provincial grant.

Directed that some copies of the Act should be sent to this Society with a reply referring to the proceedings on the 17th July, when the whole of the grant had been apportioned for the present year among the three Societies that had entered into correspondence with the Board in the County of Cumberland. The Secretary was also requested to answer the inquiries in this letter as to the manner of using the subsoil and draining plough.

Read a letter from Peter Spearwater, Esq. the President, Robert Currie, Esq. being the Vice-President, of a Society recently organised at Sable River in the County of Shelburne. The sum of £10 had been contributed, and a committee of nine members appointed to take charge of the Society and prosecute as its principal object in the first instance the improvement of their Stock by importation from other parts of the Province, the funds being inadequate to the expense of shipments from foreign parts.

Ordered, that the sum of £37 10s. be assigned to this Society, being the only one as yet in the County of Shelburne.

At a meeting of the Central Board of Agriculture held in the Province Building, August 21, 1841,

Present—The Hon. James McNab, William Young, Matthew Richardson, John E. Fairbanks, Thomas Williamson, Edward Allison, and Edward Pryor, junr. Esqrs.

Read the Minutes of the last meeting and copies of the letters then directed to be written, and which were approved of by the Board.

Read a letter from Stewart Campbell, Esq. the Secretary, Robert Hartshorne, Esq. being the President, Messrs. Jas. A. Keay, Jas. McKay, Robert Boles and Daniel Lawlor, Vice-Presidents, and Mr. E. H. Franchville, Treasurer of the County of Guysborough Society, instituted at a public meeting of the land proprietors, farmers and inhabitants of the County, held in the Court House on the 19th of June. This letter being the first intimation to the Board of the existence of the body, accounted for the delay in opening a correspondence with it, and stated that 83

members had joined the Society, paying an annual subscription of not less than 6s.—that the contributions for this year would exceed £20, nearly £25 having been subscribed and £15 paid in—that the Society desired the sum of £20 with whatever amount might be assigned to it by the Board to be expended in the importation during the present season of Dishley or Bakewell Sheep, in the proportion of two ewes to one ram—and that the members of the Society had manifested a very creditable spirit at the meetings, and evinced a general desire to embrace with zeal the advantages offered to the Agricultural body by the recent Act. The Secretary also inclosed a copy of the rules which are framed with much care and judgment, the objects of the Society being declared to be, to instruct its members in the most approved methods of dividing, clearing, draining, manuring and cropping their farms—to assist them in procuring the most approved implements of husbandry—to recommend and enable them to procure the best kinds of grain and grass seeds—to improve the breed of all kinds of Stock and to acquire the most approved methods of feeding them—to improve the making of Butter, and to encourage the introduction and cultivation of the best kinds of summer and winter vegetables according to the most approved system. By another article, the Directors are directed to open by the Secretary and at all times preserve a friendly correspondence with the Central Board and to exert as far as possible in its plans of improvement.

These documents being read and the Board having reason to believe that no other Society would be formed this year in the County of Guysborough, resolved, that the sum of £75 be assigned to the above Society—and that the agent of the Board in London be requested, if possible, to include in the general shipment for the Board, the Sheep ordered by the above Society, or to make a second shipment of such Sheep, and of those for the Cape Breton Society, if practicable this fall.

A letter to that effect which had been approved of by the members and sent by last steamer was directed to be entered on the minutes.

Read a letter from Mr. John Bonyman, the Secretary and Treasurer, the Hon. Alex. Campbell being the President, and the Rev. Robert Blackwood and Mr. Charles D. McCurdy, Vice-Presidents of the Stirling Society, with a list of its members numbering 45 and contributing £16 17s. 6d., and a scale of premiums offered for this year. The Society requested that certain seeds and implements should be ordered by the Board, and described its locality as embracing Tatmagouche, New Annap, and Earlstown, and the surplus Agricultural produce brought to market as worth about £2500 a-year. The soil, it was added, is of superior quality, and all that is required is a more enterprising and scientific temper to be diffused among the farmers, in order to augment largely the present exports. The value of these from the harbour of Tatmagouche varies at present from £25,000 to £40,000 and the imports from £20,000 to £30,000 per annum.

Ordered, that the implements be sent for by first vessel for Boston, and that the seeds should be imported at the proper season.

Read letters from the Sydney, Hants, Colchester, Cornwallis, Inverness, Mahone Bay and Brookfield Societies, and directed suitable answers to be made thereto.

THE MARKET.

Produce of every description brings a fair price in our market. During the past month the average price of beef has been 35s. ½ 100 lbs.; Mutton, 4d @ 6d ½ lb.; Butter, 9d @ 10d, by the firkin; some small lots have sold at 11d. Money is scarce and the market dull.

R. N.

"THE COLONIAL FARMER,"

TITUS SMITH, EDITOR; R. NUGENT, PROPRIETOR,

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