Technical and Bibliographic Notes / Notes techniques et bibliographiques

The Institute has attempted to obtain the best original copy available for filming. Features of this copy which may be bibliographically unique, which may alter any of the images in the reproduction, or which may significantly change the usual method of filming, are checked below.

L'Institut a microfilmé le meilleur exemplaire qu'il lui a été possible de se procurer. Les détails de cet exemplaire qui sont peut-être uniques du point de vue bibliographique, qui peuvent modifier une image reproduite, ou qui peuvent exiger une modification dans la méthode normale de filmage sont indiqués ci-dessous.

- ☐ Coloured covers/ Couverture de couleur
- ☐ Covers damaged/ Couverture endommagée
- ☐ Covers restored and/or laminated/ Couverture restaurée et/ou pelliculée
- ☐ Cover title missing/ Le titre de couverture manque
- ☐ Coloured maps/ Cartes géographiques en couleur
- ☐ Coloured ink (i.e. other than blue or black)/ Encre de couleur (i.e. autre que bleue ou noire)
- ☐ Coloured plates and/or illustrations/ Planches et/ou illustrations en couleur
- ☑ Bound with other material/ Relié avec d'autres documents
- ☑ Tight binding may cause shadows or distortion along interior margin/ La reliure serrée peut causer de l'ombre ou de la distorsion le long de la marge intérieure
- ☐ Blank leaves added during restoration may appear within the text. Whenever possible, these have been omitted from filming/ Il se peut que certaines pages blanches ajoutées lors d'une restauration apparaissent dans le texte, mais, lorsque cela était possible, ces pages n'ont pas été filmées.

- ☐ Coloured pages/ Pages de couleur
- ☐ Pages damaged/ Pages endommagées
- ☐ Pages restored and/or laminated/ Pages restaurées et/ou pelliculées
- ☑ Pages discoloured, stained or foxed/ Pages décolorées, tachetées ou piquées
- ☐ Pages detached/ Pages détachées
- ☑ Showthrough/ Transparence
- ☑ Quality of print varies/ Qualité inégale de l'impression
- ☐ Continuous pagination/ Pagination continue
- ☐ Includes index(es)/ Comprend un (des) index

  Title on header taken from:/ Le titre de l'en-tête provient:

- ☐ Title page of issue/ Page de titre de la livraison
- ☐ Caption of issue/ Titre de départ de la livraison
- ☐ Masthead/ Générique (périodiques) de la livraison

☐ Additional comments:/ Commentaires supplémentaires:

This item is filmed at the reduction ratio checked below/
Ce document est filmé au taux de réduction indiqué ci-dessous.

10X	12X	14X	16X	18X	20X	22X	24X	26X	28X	30X	32X
							✓				

THE COLONIAL FARMER,

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

VOL. 2. HALIFAX, N. S., JANUARY 2, 1843. NO. 13.

THE COLONIAL FARMER.

HALIFAX, N. S., JANUARY 2, 1843.

LAND SURVEYING—LAW SUITS.

Brought from No. 12.

Much trouble has been caused by grants made without actual surveys. A map of the coast was made long since for nautical purposes, which was in most cases sufficiently accurate to enable a seaman to distinguish one harbour from another, but not to serve as a foundation for grants of land. The Surveys for these maps were generally made in boats; the length of the bases of the triangles measured by the logline as the boat was sailing, and the bearings of points and headlands taken by the compass. It was not then generally known that the iron in a boat or vessel always gave a false and varying direction to the needle; and the plans of the shores were far more inaccurate than they were supposed to be. In early times Surveys in many places could not have been made without an enormous expence, as a strong guard would have been required to protect the party from the Indians, and along the shore eastward from Halifax, grants varying from 1000 to 60,000 acres were made, and planned upon the map where there appeared to be room for them, as there really would have been, had the map been a true representation of the shore. It was not; and the consequences of such grants may be shown by an example or two. A grant was made by beginning at a certain point upon Beaver harbour, thence running about seven miles northerly; then turning westerly and running about four miles to Sheet harbour river (which it appears on the plan to strike at the head of the tide) then following down the shore of Sheet harbour, and round the point to Beaver harbour, the shore of which it follows to the place of beginning. Afterwards a grant of 40,000 acres was made to certain discharged soldiers adjoining the north end of the above grant, which had never been surveyed. But as that appeared to end, on the plan, at the head of the tide, the Survey of the Military grant was commenced there, and held for many years, when some persons having purchased the first grant, had it surveyed, and it was found that instead of striking the river at the head of the tide, it struck it more than a mile above it, and that the military grant as occupied, encroached so much upon them. This military grant had in early times been obliged to give up a piece on the west side, which encroached on a grant of 10,000 acres, whose proprietor living on his land, prevented the Military from occupying it.

Lawrence town, too well known in our Courts of Law, may serve for another specimen. Very soon after the Town of Halifax was commenced, the wood (mostly spruce) on the five-acre lots was cut down, and all the lots fenced with poles or pickets, the Government paying for the fencing; the inhabitants being discharged Soldiers, who of course knew very little of the art of clearing wood land. When the tops of the trees were supposed to be dry enough to burn, they were set on fire, and not only were they burnt, but all their fences were burnt with them, together with the mossy turf which had covered the surface, which then appeared to be so completely covered with stones, that no man attempted to cultivate it, and for several years the town was supplied with vegetables from Boston. Governor Lawrence having examined the land on the coast was convinced that there was ground at Lawrence town capable of cultivation, and offered to build a fort and furnish a guard to protect those who should undertake to improve it. He finally prevailed upon twenty of the principal inhabitants to accept the grant of a block of 20,000 acres, and to engage to attempt to cultivate it. The fort was accordingly built, and the grantees employed men to work near it for several years, till they raised crops sufficient to support themselves, when orders were received from England to dismantle the fort and remove the guard. The settlement was then abandoned, as they still feared the Indians although the Rangers which Gov. Lawrence procured from New England had nearly put a stop to their depredations. The grantees demanded of the Governor that he should take back the land, and refund to them above £700 sterling, which they had expended in cultivating it. The Governor replied, that it was not in his power to grant their request, but that as the Government had interrupted their cultivation, he would engage that no part of Lawrence town should be liable to escheat for not fulfilling the terms of the grant. After the lapse of several years the owners of several of the lots began to occupy their land, and procured certain parts of it to be surveyed. As the grant had been originally planned and divided upon paper without an actual survey, the seabord being copied from the map, which differs greatly from the real courses of the shore, it was presently found that it was impossible to run out the lots exactly according to the plan. As the Grant is bounded upon five harbours, the situations of the lots appeared on the plan to be well fixed by their position upon these waters; but this is not the case for example: There are a number of lots planned fronting on the harbour of Chezzetcook (the Eastern boundary of the grant) and running West about 1½ miles, and on the rear of these, there is a large lot planned running West for more than a mile farther, and ending at Porter's lake: but the fact is, that the first tier of lots cannot have their length without running into this lake, which is 1¼ miles nearer to Chezzetcook than it is represented on the plan. Again from the mouth of Lawrence town harbour to the back line of the grant the distance is more than half a mile greater than it appears on the plan, and this extra portion of land being claimed by different parties, each of whom can frame a plausible plea upon the incorrect plan, has occasioned an expenditure in lawsuits of many times its value. The bad workmanship of some of the compasses used has affected the lines of many lots. Whenever we have had occasion to retrace lines run by the late Daniel Hall, we have always found an error of one degree to the right; but this is of little importance compared to the errors produced by making the instruments from a bad material; magnetic brass; which gives a false direction to the needle. [Brass is a mixed metal composed of

copper, zinc and iron. As iron is cheaper than copper it seems probable that an additional quantity in the brass has made it more magnetic than it was formerly. Every person who wishes to purchase a compass should know how to discover this fault, or he may throw away his money for an article worse than nothing. Take out the needle and suspend it upon a pin stuck into a board. When it ceases to vibrate, bring, first one, and then the other end of the bars of the compass near it; if they attract it, the compass should be condemned. If our hardware merchants would always, when ordering compasses, stipulate that they should be free from magnetism, and when they arrived, immediately try them, and refuse either to accept, or sell those that were made of magnetic brass, we should in time get rid of these nuisances.] The Surveyor measures with a chain 4 rods in length, divided into a hundred links. A square chain therefore, or piece of ground four rods square, contains 16 rods, exactly the tenth part of an acre; consequently when chains are multiplied by chains, if the right hand figure is struck off, the remainder will be acres; and as links are hundredths of chains, they are with equal ease reduced to other measures by any person acquainted with decimal arithmetic. The Surveyor most frequently works with a half chain on rough land, but always marks the true number of full chains on his plan. It is customary when five chains are measured to make a mark upon paper, a knot on a leather string, or a notch on a stick, called a tally, and it has sometimes happened that a tally has been lost, or marked twice by mistake.

We have thus hastily thrown together the principal causes of the irregularity of the division lines of land. A very considerable portion of the large lots of land will be found to differ more or less from the recorded description. Neither the courses, nor the lengths of the lines will be found exactly what they should have been: a few lots will be found too small, a much greater number too large, and very rarely indeed, an instance of intentional fraud may be met with.

The inference we would draw from these facts is, that the old lines should be preserved if possible. That it would now be most mischievous to re-survey all the lands as they ought to have been at first, being one of those cases to which the ancient quibbling adage that "strict justice is the greatest injustice" would apply. Buildings and fences have been erected, and improvements made, some single acres are now worth fifty times as much as they were originally, and it will besides, be found generally the case, that old lines are more respected than those lately run. "The old line" and "the true line," are synonimous terms in the opinions of most people. Even honest men show a peculiar aversion to giving up land which they have long accounted their own. We hardly recollect once in a month that some time or other we shall die, and feel remarkably attached to a kind of property which appears to be imperishable. Every person feels pleasure in thinking he is standing on his own land, however small its value, and this feeling is connected with a love for the country in which his land lies, and a wish to promote its prosperity. The titles to landed property should be secure, and not liable to be easily shaken, for on their security depends in some measure, the security of the country.

It frequently happens that a person who has just purchased a lot of land which has most of the marks made at the time of the original survey obliterated, will send for a Surveyor, show him the beginning boundary, and desire him to run it out exactly according to the description in the grant. Reasonable as this demand appears to be, the Surveyor in many cases ought not to comply with it. He should first ascertain the date of the grant, and, if possible, what is of more consequence, the time when the old lines were run, that he may know what to allow for increase of variation; he should inquire if any part of the old line can be found besides the beginning boundary, and if that is unknown, if the lines of any adjoining lots, which were run at the same time, can be found, that he may try their course. Should there be a known boundary at each end of the line, or a known mark between them upon the line, he should make his line agree with them, although differing somewhat from the recorded course. This may be effected by running a line upon what is supposed to be the right course from one boundary to the other, or to the known mark, without blazing; then by measuring from the termination of this line to the marked boundary the course may be readily calculated, and the line run again and blazed. Upon magnetic ground where it is a slow and tedious process to run correct lines by the compass, we have practised the following method, which will be best explained by an example. A lot a mile long had the ancient boundaries preserved at each end, but no trace of the line between them could be found, the original growth of timber having been all destroyed and replaced by a young growth. It was known the boundary in the rear was far from where it ought to have been placed (the consequence of the local magnetism having been overlooked by the Surveyor who laid out the lot) but it could not be altered, because there was abundant proof that it had been held as the boundary for more than fifty years. The line was run westerly without blazing, (leaving a small stake at the end of every two chains,) and the last stake at the termination of the line was found to be two chains northward from the old boundary. There were of course 40 stakes upon the line. The whole error was two chains or 200 links, which divided by 40, gives 5 as the error at each stake. We then returned, removing the stakes into the line and blazing between them, the last stake being moved southerly to the old boundary the whole 200 link, the next 195, then 190, 185, &c. back to the first, which was moved only five links.

In some places two lines will be found running from the same boundary but diverging from each other, and the Surveyor will be puzzled with witnesses for each who will be equally positive that their favorite line is the oldest. In this and similar cases the variation of the compass will generally be found the most trusty evidence, for the memory of witnesses concerning events that happened forty years ago will often be treacherous. We have known a long line in dispute, which certainly did not agree with the original plan, nor was it possible in that place to run one that should, because the plan differed greatly from the real form of the land and adjoining waters. One party maintained that this line was run for the first time about 25 years ago when the disputes commenced, and that it had never been acknowledged as the division line. The other asserted that at that time the Surveyor only retraced the old line at a time when part of the old marked trees were to be seen. There were several witnesses in favor of each party, who were equally positive. But upon retracing this line we found the variation had increased three degrees since it was first run; which must therefore have been about 50 years ago.

We would advise all persons to be very cautious of introducing disputes concerning lines of land into courts of law; they will very often be decided wrong, because that very often the evidence necessary to make the case intelligible will not be brought forward, and often the decision of one suit will only serve to lay a foundation for another. We have known a case in which the court decided between two boundaries, very fairly according to the evidence, but we have no doubt that the decision would have been in favor of the other had all the proper evidence been brought forward, for the old plan fixed the boundary near a remarkable bend of the adjoining

river, and the situation of the condemned boundary exactly agreed with it, while the one that was confirmed was far from it, but no evidence of this was produced upon the trial. This decision directed the course that the line should be run, copying it literally from the grant; but between the times that the grant was made and this decision, the needle had moved three degrees to the left, and consequently a considerable portion of the long narrow lot which lay to the left was cut off in running this line, making the other lot the same quantity too broad in the rear. This is one of those circumstances which prove that a slight knowledge of surveying should form a part of a Lawyer's education, as it was for lack of such knowledge, that a line was unintentionally ordered to be run upon a wrong course, which might have served as a foundation for another lawsuit. It should be well considered that the winner of a disputed division line in a court of law, is generally obliged to pay in time and money, much more than the disputed land is worth; and that in many of these cases the evidence is of such a nature that the loser still believes himself to have the best claim, and feels disposed to try the case over again, for it frequently happens that the winner on a first trial proves the loser on a second; and in this way a litigious character is formed; for the man who has had several law suits often becomes as fond of them as the gambler is of his dice, and for the same reason, the uncertainty of the decision awaking the passions of hope and fear, creates an excitement which finally becomes his chief good, and he continues the practice often, till he reduces himself to poverty.

A man who had lived to an extraordinary age (either Parr or Jenkins) being a witness upon a case of a disputed line, was asked how long he had known the dispute to be continued, he answered that he recollected it for more than 130 years. Above all other incumbrances avoid purchasing a property encumbered with a title in a law suit. If you sell or buy land, the boundaries of which are not well known, always have it carefully surveyed previously to drawing the deeds. Many lots have been sold, describing them as they were described in the grant, to which the seller conceived he had a good title, but upon surveying after the sale the purchaser has found that a part of the grant was actually in the possession of a third party who would not give it up—a lawsuit has followed; the occupants title has been confirmed by proving long possession; and the purchaser has come for damages upon the seller, who has been compelled to pay more pounds for his mistake, than the disputed land was worth of shillings. There are errors in many lots not suspected by the owners; not a few division lines have been marked by one of them, without either skill or proper instruments. After the lapse of a number of years, and a change of owners, by death, or sale, these incorrect lines are supposed to have been made by the Surveyor, and indeed in many cases are held undisturbed, and unsuspected till they become confirmed by long possession.

In drawing deeds which convey lots granted many years ago, the courses of the lines ought not to be copied literally, as this practice has caused disputes. Most of the lots on the west side of Bedford Basin had a course, South 71 degrees West; and if the old lines had been preserved, they would be now found to run South 76 degrees West. Instead therefore of describing one of these lines as running South 71 degrees West, it should be, "Thence running the course, which in the year 1763, (the date of the grant) was South 71 degrees West." But this description, which would be correct if proper allowance had always been made for increase of variation, should only be resorted to, as the least of two evils; when a survey cannot be made. Upon the lots above mentioned, a number of the old lines have been preserved—a greater number are held as lines run at a later date—some by lines not more than thirty years old; consequently the courses of some of these lines differ three degrees; and some lots are consequently too narrow, and others too broad in the rear; but they cannot now be altered. It is therefore advisable, in all cases of transfers of landed property, if boundaries are not well known, to have the land surveyed, and where old lines are retraced the Surveyor should add to his descriptions of the courses, the words, "at this date." Surveys are, it is true, expensive, but their expence is trifling compared to that of Law-suits.

BLAIN.

This is a disease of the tongue in cattle, which from its sudden attack, fearful progress, and frequently fatal termination requires particular notice. The animal is dull, refuses his food, and ceases to chew the cud. A discharge of saliva appears from the mouth; at first limpid and inoffensive, but soon becoming purulent, bloody, and very ill-scented—the head and neck swell, the animal breathes with great difficulty, and is sometimes suffocated. On examination of the mouth the tongue appears enlarged, but it is in fact, only elevated from its bed between the cheekbones, and the cause of this being examined into, large bladders are found running along the side and base of the tongue. These bladders grow rapidly—become of a great size; and quickly break, forming deep ulcerations. Other bladders immediately arise near them of a still larger size. Sometimes the animal dies in twenty-four hours, but at other times a malignant fever comes on. The tongue soon becomes really swelled. General inflamation of it speedily follows; and that part on which the ulcers first appeared becomes mortfied. This disease is sometimes very contagious, and will be communicated to cattle that eat in the same manger, or feed in the same pasture. It sometimes spreads to other domestic animals, and has, as well as the Glanders, and Quarter evil, (or Blackleg) been communicated to human subjects; it is generally supposed that the poison is conveyed by innoculation, that is by the matter touching some scratch or sore place: but a man has lost his life by eating with a silver spoon with which he had held down the tongue of an ox affected with the Blain, and accounts have been lately published in France of men dying with the Glanders who must hav received the contagion in their breath, as there was no contact. Creatures dying of these diseases should be buried immediately without skinning, (a man in the States very lately lost his life by cutting his hand while skinning a beast that had died of the black Murrain.) Stables should be well washed,—smoked with sulphur and white washed, or the disease may be expected again. Blain it is believed has been very rarely known in this Province, but we have heard of it many years ago appearing in Lunenburg.

The treatment of blain is very simple, and if adopted at an early period of the disease, effectual in a great majority of cases, as it is, at first, a local malady, the first and most important means to be adopted will be of a local character. It is inflamation of the membrane of the mouth along the side of, and under the tongue, and characterized by the appearance of vesicles or bladders, perhaps pellucid at first, but becoming red or livid as the disease advances. *These vesicles must be freely lanced from end to end.* If this operation is performed when the cattle begin to drowl, and before there is any unpleasant smell or gangrenous appearance, it will usually effect a perfect cure. But if the disease has made considerable progress and the vesicles begin to have livid appearance, with a very offensive smell, all that remain whole, as well as the new ones beginning to rise, must be deeply and effectually lanced, and the ulcers washed half a dozen times in the day or oftener with a weak solution of chloride of lime (a dram of the powder to a pint of

water.) By means of a Syringe or piece of sponge, this may be brought in contact with every part of the ulcerated surface. If the unpleasant smell is removed by this treatment, the mouth may be bathed with equal parts of *Tincture of Myrrh* and water; or, (which is better) with a strong decoction of the roots of the yellow rooted marsh dock, (Rumex Britannica) called in a part of this province, "Rosemary root." Where these cannot be procured, there are in every part of the country plants which may be used with advantage to make decotions to wash sores that appear disposed to mortify, or to run water and spread. Among these we may reckon two of the paper-like mosses which grow on mossy ground in the woods, and on old mossy logs, but not on standing trees. The best is the ash coloured ground Liverwort; (Lichen caninus) When dry it is ash-coloured on the surface and attached to the mossy turf by many small roots, but when damp, as it is generally, growing under thick shade, it is a pale black, with some small, smooth, shining brown appendages fixed to the edges of some of the leaves. When the Putrid sore throat appeared for the first time in America in 1756, it was a much more dreadful disease than it now is. It was perfectly unknown to the physicians, and spreading rapidly, and proving invariably fatal, created a great alarm, till the use of this Lichen was discovered, which, though by no means infallible, saved many lives. The other paper moss, (Lichen aphthosus,) is very common on barren land overgrown with small spruce; the jagged irregular leaves are green above and white beneath.—The roots of Sea Lavender (Statice Limonium) a plant growing on the edges of marshes and beaches, with leaves like plantain, and a very branchy stem covered with a multitude of light blue flowers, or the seed cones of black Spruce may also be used to make a strong tanning decoction, which is often useful. But when the creature appears very sick, and a part of the tongue is actually mortified, it will be hardly worth the pains to attempt a cure.

COMPOSITION AND CULTIVATION OF CLAY LANDS.

The earthly substance known as alumina or argil, forms a most important part of the materials of the earth It exists no where in a pure or uncombined state, and when procured from alum, of which it forms the base, it is a light white powder, very soft and spungy. It is distinguished in a peculiar manner, by forming a tenacious and ductile paste, when mixed and kneaded with water, and whenever it is found in soils to any considerable extent, it imparts to them this quality in an eminent degree.

The substances nearest approaching to pure alumina, are the argillaceous minerals, some of which are among the most beautiful of Creation's gems. A large class of these known as *perfect corundum*, possesses a hardness and density, only inferior to the diamond, and are classed by the lapidary, according to their various colors. The red, constitutes the oriental ruby; the blue, the sapphire; the yellow, the topaz; the purple, the amethyst; the green, the emerald; and the yellowish green, the chrysolite. Of these, the sapphire analysed by Klaproth, was found to contain 98 5 of argil, 1 of oxide of iron, and 5 of lime. The ruby afforded 90 of argil, 7 of silex, and 1.2 of iron. *Emery*, a more extensively diffused mineral, and of general use in the arts, is composed of 80 5 of argil, 3 of silex, and 4 of iron. Mica, an invariable constituent of granite, has 30 to 35 per cent. of alumina; and hornblende, which combined with feldspar and quartz, constitutes sienite, has 12 to 14 per cent. Basalt, forming an extensive mass of rocks, has 16 per cent. of alumina; clinkstone and wacke have a large proportion, argillaceous slate, extensively disseminated, has 26 per cent, and whet slate; hornestone, of a splintery character; and drawing slate used as tiles, alum slate, from which alum is extracted, and bituminous shale, each contain large quantities.

In the disintegrated form in which alumina exists in combination with other earths, *porcelain clay* contains a greater amount than any other substance; Wedgewood having found it in Cornwall, Eng, to contain 60, combined with 20 of silex. Generally however, it has not over 42 to 48, with silex 52 to 58. The strongest *agricultural* or *pipe clay*, consists, according to Johnstone, of 36 to 40 of alumina, with 53 to 56 of silex, 3 or 4 of oxide of iron, and a trace of lime. *This is generally called pure clay.* The constituents of which it is composed are *chemically* united in most cases; that is, so combined that they cannot be separated by washing or other mechanical means

The *strongest clay soils*, which brings us to the practical part of our subject, consists of the last mentioned clay, with 5 to 15 per cent. of silecious sand, *mechanically* mixed, which admits of separation by boiling, when the sand settles, and the clay, which remains suspended in the water, may be poured off. A *clay loam* has a still larger proportion of sand, 15 to 30 per cent., which can be separated as above, and which renders the soil more loose and friable. A *loamy soil* has 30 to 60 per cent. of sand; a *sandy loam*, 60 to 80 per cent.; while a *sandy soil* has not over 10 per cent. of *pure clay*, which, it must be borne in mind, though called pure clay, contains only 36 to 40 per cent. of alumina.

The distinguished characteristics of clay soil in an agricultural point of view, are their great tenacity, which renders their separation by the plow and other implements, more difficult than such as have a larger proportion of sand; and when so divided, they do not crumble and separate into minute particles, except under peculiar circumstances. They have a strong affinity for water, holding it in great excess after rains; and their texture is such, as to prevent the easy escape of the surplus, so desirable, and even necessary, to the most successful cultivation and growth of vegetable life. These are objections that attach to all clay soils, in their unimproved condition. They are inherent in their nature, and inseparable from their constitution, wherever found, or however existing. *These deficiencies are still further augmented when they occupy a* level position, as many of them do. To rid them of their surplus water is the great object to be accomplished, and if this be effectually done, all other difficulties vanish. In Scotland and England, where they have a large proportion of this kind of land, which is more highly esteemed than any other, for wheat and other of the most valuable crops, they have, as is well known, adopted to a considerable extent, *a system of thorough under-draining*. We have received in the last No. of the London Farmer's Magazine, the details of this system, from Mr. Smith, of Deanston, which we shall give at length hereafter, if we can find room, as containing the latest and fullest intelligence on this most important practice; and, for the present, content ourselves with extracting from the Journal of *the Royal Agricultural Society* the details of an effectual system of draining, so cheap as to be within the reach of every one where the materials are to be had conveniently. They are from the pen of Rev. G. V. Holcomb. He says:

"The land is drained with dried turf, procured for the purpose from the fens, similar in appearance to what used to be consumed instead of coal in the cottages; the length varies from 12 to 15 inches, according to the goodness of its quality, some being more brittle and more easily broken in carriage than others; the width and depth of the best turves is about 3 inches; the retail price is now 7s. per thousand. 4 horses in a wagon easily bring 2000. Supposing the drain to be a rod, *i. e.* 5½ yards, asunder, the usual distance, 2000 turves amply suffice for one acre of land; the durability of the drainage depends upon the soundness of the clay, the depth in the earth at which the turf is buried, and the goodness of turf, which varies in different parts of the fen. I have myself been a tile-maker for my own consumption, and used many thousands; but after twenty years of practical experience of tile and turf, prefer the latter; it is two thirds cheaper than tiles, and, where sheep-folds are set, not so liable to have the drains broken in, the turf giving way to the drift, whereas the tile breaks, *and the earth follows.* I now cut across the old tile drains to make turf ones in opposite directions, and deeper in the ground The tile drains are frequently found to be destroyed—rats, rabbits, moles, or narrow wheeled carriages passing over them are all injurious. Turf is found to be sound when has been laid 16 years, but it pays well to renew the drains every eight seasons. The *shape* of the drains corresponds with the turf. I send a slight sketch. The first operation is with a double-breasted plow, which makes a deep impression in the land; the laborer then takes a shovel to clear out the loose earth; afterwards he uses the spade; lastly he uses the land-ditch tool, with which the lower part of the drain is excavated to the depth of 12 inches more. the width of this aperture is about 3 inches at the top, and is gradually reduced by the shape of the implement to a

at the bottom. The drain is perfectly cleared by a drawing tool or hoe. The turf is then pressed into the drain by the foot to its depth, which is about 3 inches, leaving an open course for the water of about 9 inches deep underneath; when expanded by moisture, with the earth filled in open, it will bear any weight of horse or cart. The party of men who undertake the job, generally carry to the field a small iron drift, with which they break or remove any stone that may interrupt the spade; if a large one they dig it out, filling the space with clay out of which the drain is formed for the turf.—A little boy or girl, from six to eight years old, commonly attends each drainer, with a tin mug, often an old powder tin, attached by a bit of string to the end of a stick, and filled frequently with water out of a pail, with which the child follows the spade, and by pouring it out when necessary, loosens any stiff piece of clay or earth; when not wanted, the boy shovels out the moulds, previous to the operation of the spade, or collects the stones cast out, for which he is paid per load. The price of draining, varies from 3s. 6d. to 5s. per score rod, including boy's wages; a good hand will execute 14 rods, some more in the day. Sometimes 2, or even 3, spades' depth is taken out to get a proper level, or to penetrate the clay, when the price of course rises in proportion. If the shoulders of the drain give way in a gravelly or gaulty place, bushes or rubble are placed under the turf, which is doubled to fill a larger aperture."

According to the above plan, having the drains within one rod of each other, there will be required 160 rods of ditch or drain on an acre, and this at the above highest estimate, costs 5s for every 20 rods, or 40s. per acre, or a little exceeding $9. If we double this amount, to cover the extra price of labour in this country, for the cost of this species of draining, we have less than $20, as the expense of putting an impracticable, clay soil, in a condition of yielding for 20 years, or more, the greatest quantity of produce, with much less preparation than is now required. This surely is a system which will justify adopting, whenever lands are so valuable as to render a moderate augmentation of their products an object.—We are not advised of the increased value of thorough drained clay lands in this country; but though our hotter summers and drier atmosphere would probably render the difference effected by draining much less here than in England, yet there is no doubt, that the increase in crops, and saving in labour, must be very great.—Could we have details of the effect of such draining in this country, it would be presumptuous to state, at what price per acre this improvement would be justified. The value of an 18 years' lease of land, before draining, was estimated by Mr. Smith at less than £6, while the same lease, after thorough draining, is estimated by him to be worth more than £64; or over ten to one in favour of the land which had been drained. Such results, which have been experienced in Great Britain, will warrant ample trials among the intelligent agriculturalists of America. We shall be most happy to receive, and give publicity to any well conducted, and accurately stated experiments made in this country, if any such exist.

We are confident that the inventive genius of our countrymen would easily devise some practical application of steam power, to draining extensive, level lands, while the surface is firm and compact, during dry weather, so as to reduce the expense perhaps below the cost in Europe; and when this is accomplished, the principal obstacle to introducing this greatest agricultural improvement of modern times, will be removed, This system is, beyond doubt, the only one approximating perfection in the tillage of heavy clay land.

A plan for under-draining, has been, to some extent, adopted in England, which is done entirely by horse or ox power, by attaching a pointed iron spindle of about 3½ inches diameter at the large end, to a sharp coulter, which reaches to the required depth below the surface, say 20 to 30 inches. This requires a very strong team of 6 or 8 powerful horses, when the work is done with great facility, by simply carrying the spindle through the subsoil in a horizontal direction, attached to the lower end of the coulter.—The adhesiveness of the clay effectually closing over the drain made by the spindle, is said to leave a permanent passage for the water for years; but as this system has not been extensively adopted in England, we may conclude it will hardly justify a trial here.

Our principal object at the present moment, is to give some general directions for cultivation of clay lands, as they are usually found in this country, which are the results of long continued, skilful practice, of the best farmers. The most desirable improvement would be, to alter the texture of this description of land, by the addition of a quantity of sand and gravel, so as to modify the tenacious character of the clay This plan, however, like that of under draining, is too expensive for this country, except in the neighbourhood of cities, where land is sufficiently valuable to justify the cost; and improvement in this way, must be confined to such lands, or small patches elsewere, where sand is convenient for the purpose.

Another mode of improvement, which to a certain extent, is within every farmer's reach, and is one of the legitimate objects of every good farmer's system, is to add large quantities of coarse, unfermented manure, and all his undecaying vegetables; which may be done on a large scale, by turning in matured crops produced upon the land There is no danger of putting on too much manure of this kind, if buried sufficiently deep, in proportion to the quantity used. And there is as little danger of suffering any loss of the manure. It will last till exhausted by the growth of vegetation. Nor will it *burn* the land, according to the common phrase, as an excess of manure does on light and sandy soils. It is not carried away by rains, or evaporated by heat, but like coin, securely hoarded in a strong box, it is safely retained till the owner's key is applied to unlock it. The mechanical, as well as chemical character of this soil, particularly adapts it to the preservation of manures; for in addition to its strong chemical affinity for ammonia, which is the fertilizing principle in all soils, its mechanical structure enables it to hold beyond the possibility of escape, all the animal and vegetable substances buried beneath it.

After doing whatever can be effected advantageously towards altering its character as above described, the next process is to put the surface into the right shape. This should always have some descent, sufficient to enable the water to pass off freely. When the natural surface has not declivity enough to effect the object, the land must be thrown into beds of 10 or 20 feet wide, with a deep double furrow between each, to conduct off the water, which falls from the more elevated surface; and the water accumulated in these furrows, should be led away through some natural ravine or artificial ditch.

For all grain crops to be sown in the Spring, the land should be plowed the preceding fall. The following spring, the grain may be sown directly upon the surface, and harrowed in and rolled, without allowing the plough to touch it. By this operation, we have the bed, in which the grain is to nestle, and from which it is to draw its future support, more finely divided by the elements, and the action of frost through the winter, than can be done by any instrument whatever, and no alteration of this handiwork of nature can be made but for the worse.

If corn or roots are required, the land should be *half* plowed the previous fall; that is, a space should be left unmolested, of the width of a furrow, on which the upturned furrow is thrown. By this operation, a large dry surface is exposed to the salutary effects of air and moisture, heat and frost, and it will be in the best possible condition for early tillage, and abundant crops. It will be mellow, friable, and comparatively dry, and by thorough cross-plowing, harrowing and rolling, in the spring, it will be well fitted for the reception of the seed.

Of the immense capabilities of good clay soils, we have never been more favourably impressed than during the last and present seasons. While surrounded by scorched fields and withered crops, during the excessive drought of last year, our own crops of every kind, on a tenacious clay, were sufficiently supplied with moisture, and were never heavier and better. The present summer has been one of excessive rains, yet when the land was well supplied with manure, and properly laid up, the yield has been peculiarly good. The long continued cold of the spring was unfavourable to many crops, yet after a thorough examination, during the summer, of those growing on every variety of soil, over an extent of several hundred miles, we have no where seen them better, or more abundant, on any land in no higher condition.

For *winter wheat* we do not think them suitable, unless prepared by thorough under-draining, as the wheat is very generally winter killed, or thrown out by the frost, or drowned by excessive rains, before the sun gets sufficiently high to protect it. But with the best varieties of spring wheat, it produces largely. For the production of rye, it is totally unsuited; but of barley, oats, peas, grass and roots, when suitably prepared, no soil produces better crops. Their chief value, however, is for grass lands, and when properly put down in meadow, they ought never to be disturbed, as, with good management, they will be in a constantly improving

state, and afford the most profitable and remunerating returns.—But while in this condition, no animals should ever be suffered to graze them, and especially while the ground is soft. Poaching is destruction to them, and no scarcity of other food, will justify the farmer in driving his cattle upon his meadows, while saturated with water. It is a common opinion by those unaccustomed to them that clay lands will not produce good clover; yet we have never seen better clover, or larger crops, than we have repeatedly raised on them.

When required for roots, corn, or other hoed crops, the soil should be well charged with manure, and the most thorough tillage will be amply repaid. "A little land well tilled," has a peculiar signification when applied to this kind of soil. Plaster, (sulphate of lime) has no appreciable effect on it when applied in small quantities; and lime, (carbonate of lime,) has less value than any of the lighter soils. Ashes are valuable on any land, and we believe, under all circumstances; yet we have repeatedly made the application of them on a very stiff clay, without deriving any immediate perceptible benefit. A longer time is required under certain circumstances, for them and other manures to act, but their action continues through a much longer period.

From the American Agriculturist.

The writer of the following article was, for many years, a practical farmer in England, and has since, been more particularly engaged as a practical chemist. He has constantly, however, been an observer of Nature's operations, which he has been the more successful in detecting, as many of the manipulations of the chemist, are only acted over on a larger and more varied and complicated scale, in the out-door laboratory of the universe. His remarks are of a thoroughly practical, and therefore of the most useful character. We are promised a continuation of them, till most of the sources of fertilization afforded in our city are indicated to the farmer. We think it is unnecessary to mention, that although these observations have particular reference to this and all large cities, yet its principles are applicable wherever the materials mentioned are found.

TO OUR FARMERS WHO OBTAIN MANURE FROM THE CITY OF NEW-YORK.

It is a long time, at least forty years, since I was practically engaged in farming, yet I retain a strong predilection for that interest, and shall at all times be ready to render it any assistance in my power. Your pursuit, my friends, is superior to all others, it is the very foundation of national prosperity, and would be supported in preference to any other interest in our country, were our legislature willing to appreciate your intrinsic value. The present is considered by us, as superior to more ancient ages, yet among the ancients, kings and princes devoted their attention to agriculture, promoting that interest as superior to all others. The modern kings, emperors, and legislators of Europe, are now pursuing the same course, and it is only our Republican America that hangs back in refusing a small pittance for establishing colleges for your instruction. This will be considered a foul blot on our national escutcheon, if not soon removed.

I observe that our farmers, in taking manure from our city, collect only the street dirt and stable manure. My view in writing this article is, to point out to them other more valuable fertilizers, now totally neglected by them, which I shall mention separately, and comment on each as I proceed

All the fertilizing properties in manure, are the soluble portions, and by far the best of our street dirt is carried into our rivers by every rain that falls. In preparing soil for land, two distinct objects are to be kept in view; first, that the most fertilising materials be collected; and second, that a sufficient quantity of materials be added to absorb and retain the fertilizing portions I shall call the first the food of the plants, and the second the cellar in which it is preserved, to be used as wanted. In drawing your attention to the fertilizers now thrown away in our city, I shall endeavour to recommend the best retainers to be used, after explaining the elementary properties of each material. In doing this, I shall avoid, as much as possible, all technical terms, using in every possible instance, the plain farmer's language.

I shall begin by drawing your attention to the offal of our fish markets. This is now thrown into our rivers and lost. You are all aware of the value of fish manure, and yet this large supply is daily wasted. I have conversed with our fishermen on the subject, and they all assure me, they would be glad to have it taken away, if it could be done daily. I have no doubt that tons of this offal could be daily collected. As our fish markets are all on the borders of our rivers, it would be easy to collect it if suitable arrangements were made by the collector.

The next object for the farmer to attend to after collecting this offal, is to save and apply it in the most effective manner. Our farmers generally strew fish on the land, and work them into the soil in the best manner they can. In following this mode of application, they lose nine-tenths of the fertilizing qualities of the fish; as all the ammonia formed by their decomposition, excepting the small portion absorbed by the roots of the crop then on the ground, will evaporate and be lost, at least to that farmer. I say to that farmer, because it is more than probable that it will be brought down again by rain or snow on the land of some of his neighbors. I presume, however, that those who use fish for manure on Long Island or the Jersey shore, do not wish nine-tenths of its fertilizing quality to fall on farms in Canada or Florida, or the Atlantic ocean, or wherever the wind may direct it. I have been informed that some of our farmers have put fish in their barn yard manure, and did not find it more beneficial to their land than when the fish were applied to it as before described. This is no more than any chemist would expect, as there is nothing in their usual manure heaps to retain the ammonia—so far from it, the most valuable portion of their manure also evaporates, for want of ingredients being added to them capable of absorbing and retaining the ammonia. The best known materials for this purpose, are Charcoal, Plaster of Paris, and the Acids. There are but few farms that do not afford brush-wood in sufficient quantity to burn into charcoal for the use of their manure heaps, by which all the ammonia from their cattle, horses, and other stock, would be saved, as well as that from fish or any other animal matter added to their dung heaps. I would recommend our farmers to put plenty of it into their hog-pens. Those farmers who cannot have access to charcoal may use plaster, as this also will retain a large quantity of ammonia, but is every way inferior in its powers of retention to charcoal Besides, charcoal is one of the most desirable of all applications to land, its good effect having been experienced twenty years after a liberal supply has been put on. It appears not to waste when used as a soil, and if it does, it is so slowly as not to be perceptible. So long as it retains its qualities of charcoal, so long will it retain its power of absorbing ammonia, and giving it up to the plant when required. A charcoal dealer offered to supply me with the dust at 2s. per barrel if I found him the barrels; but I had just engaged two sloop-loads for carting away. A friend living at Williamsburgh, has lately brought a large quantity at the above price.

The next articles I shall call your attention to as valuable fertilizers, are the broken brick, and lime rubbish, of buildings pulled down in New-York and Brooklyn. This, heretofore, has been carted away to fill up docks and low grounds, but I hope soon to see it applied to the land. We send to Nova Scotia for plaster, freight it from thence, cart it to plaster mills, and grind it for agricultural application; yet the bricks and mortar, possessing the greater fertilizing powers, are thrown away. Let some of our plaster grinders collect these materials, grind them coursely, and sell to the farmers, and I predict that in a few years it will be more sought after than plaster.

I was told by a farmer I met at the Albany fair, who came from near Boston, that he owned four acres of land, which more than forty years ago was covered with brick-kilns; that this land had been in possession of his family ever since, that they had taken great crops of natural grass every year, without adding any manure or soil, and that this year he had cut from it two and a half tons of hay per acre at one mowing. These observations were elicited by my having recommended burnt brick as manure, in the Cultivator some months before.

Bricks contain roasted alumina, and silicate of potash. The first produces one of the best of soils, and the second forms a portion of all grass, straw, grain and corn. Wheat contains more of it than any other grain.

A Chinese farmer will scrape the plaster off rooms, and re-plaster them at his own expense, for the sake of applying the old plaster to his land; yet in our highly intelligent country, we permit hundreds of tons annually to be thrown away rather than take the trouble to collect it. Old plaster contains more or less of nitre of lime, which is a most valuable manure.

On the 11th of the present month I noticed a carman carting away a large heap of plaster, and he told me it was used to fill up a dock. Thinks I to myself, they might as well fill that dock with hay, as to fill it with a material that will produce more than its own bulk of hay *annually*.

WM. PARTRIDGE.

From the Connecticut Farmers Gazette.

THE POTATO.

As an article of profit for general cultivation, none can compare with the Potato in the in the vicinity of large cities and navigable waters. The farmers of the town of *Greenwich*, in Fairfield county, made this discovery more than 45 years ago. Since that time it has been their principal crop, gradually increasing, by which they have become the most wealthy town in the State, according to its population. Bordering on the Sound, with a number of good harbors, and their proximity to New York city, their facilities for transportation, and advantages for a market, were highly favorable to their pursuit.

This township is composed of several ridges ranging north and south, with a considerable portion of rough, rocky, broken surface, and all furnishing stone sufficient to fence it into small lots, which the great industry and enterprise of its inhabitants has, in a great measure, accomplished. The soil is chiefly loam, with some small portion of gravel, well adapted to the use of *gypsum*, and the production of grass, corn, oats, potatoes, and other roots.

In raising potatoes, no manure has been so generally and profitably used as gypsum. Very little has been done in the business of making compost. The prevailing *notion*, that gypsum has no efficacy on the sea-shore, does not hold true here. More of it may be necessary than in the interior, to produce good effect But, preceded by any alkaline substance as lime or ashes, in any soil where there is any vegetable mould, there is no failure in effect, unless temporarily, from a drought. The free use of lime in this town would greatly enhance the effect of gypsum on any crop. The mode of cultivation in Greenwich has been tested by nearly half a century's experience, and may therefore be safely recommended.

Turf land is generally preferred, plowed twice or more, till well mellowed. The ground is marked with the plow into squares of about 30 inches, which barely admits a horse with a small plow to go between the rows. One large, or two middle size, or three, or four small potatoes, are dropped in a hill, generally without cutting. A small table spoonful of gypsum is then dashed on the seed before it is covered. When the tops are mostly out of the ground, three or four inches, a plow is passed between the rows, turning the furrow from the hills. Then a light brush harrow is drawn across the furrows, which in part covers the tops, and smothers, or eradicates all young weeds. No hoe is used at this plowing. After the second plowing, turning the furrows towards the rows, the hoe is applied to clear around the hills, and give them a little fresh earth, before the plow has not already done it. Previous to the next plowing, (generally with one horse,) another small handful of gypsum is sometimes dashed on the hill, and perhaps more frequently is broadcast. The plow, in good tillage, is passed between the rows often enough to subdue the weeds, previous to, or about the time the blossoms begin to put out; but the hoe is seldom used more than twice, and without much hilling up.

Where gypsum is applied, the potatoes are all nearly of one size, much more so than when barn, or any compost manure is used. The average crop on any well tilled, plastered land, is about 200 bushels per acre Farmers, with one hundred acre farms, generally raise from 800 to 2000 bushels regularly, in favorable seasons, besides corn and other grains and vegetables. We know one farmer who, ten or fifteen years ago, frequently planted from 50 to 60 acres and remembet one crop of 16,000 bushels.

Breeding Horses.—It may therefore be worth while to make a few remarks on the breeding of horses, for there is no part of England where there are more spirited, and at the same time more careless, breeders of horses than in the limits of the circulation of this paper. The first axiom I would lay down is, that "like will produce like"; that the progeny will inherit the qualities, or the good qualities of the parents. It is also certain that the foal will inherit the diseases of the parents, or at least the predisposition to them. There are proofs upon proofs that blindness, roaring, broken wind, spavins, curbs, &c., &c., have been bequeathed both by the sire and the dam to the immediate or more distant offspring.—Peculiarity of form and constitution will also be inherited. The unskilful or careless breeder will often so badly pair the animals, that the good points in each will be in a manner lost, the defects of both will be increased, and the produce will be far inferior to either sire and dam. Of late years these principles have been much lost sight of in the breeding of horses, and the following is the explanation. There are nearly as good stallions as there used to be. Poverty or indifference have induced many of the farmers to use that mare on his farm which has cost him little money but still he determines to have a foal from her, and she is put to the horse; and by what rule does he select the horse? Why, a horse is selected because "they say" he is a good one or because they only charge so and so for his covering, and a foal is *still* a foal; or neighbour So-and-So has a horse, and you know we must not go by him, it would not be neighbourly. Under these considerations, not having the least reference to the points of the horse or the mare, a foal is produced, in all probability a worthless animal. I wish to impress upon the minds of all farmers that the excellence of the mare is a point of quite as much importance as that of the horse, and that out of a bad mare, let the horse be as perfect as he may, a good foal will rarely be produced. Farmers should also bear in mind that a foal which, when arrived at maturity, will sell for £15, requires as much food as one that will sell for £100; and that the latter (if worked) will perform as much work for the breeder as the one that sells only for £15. but should the £100 horse happen to receive a blemish during his work, he will at any rate bring as much as the unblemished £15 horse. I have been induced to make these remarks in the hope they may catch the eye of those farmers who breed horses, and are carelesss about the stamp of mare they put to the horse, and who by being thus indifferent, are the cause of producing the inferior class of horses we have recently witnessed at Horncastle fair, and which I trust we shall see by degrees diminish in number,—*English paper.*

A Geological Report upon the Fourche Cove and its immediate vicinity, by Byrd Powell, M. D., with a Geological Map, Little Rock, Arkansas.—We are indebted to W. W. Stevenson, Esq., for the above brief, though valuable report. The author has well set forth the money saving benefits resulting from a knowledge of science, in the following remarks:

"Geology lies at the foundation of a large portion of those great improvements by which society is civilized and placed in advance of barbarism. The improvement of a country in canals, rail roads, mining operations, and in the discovery of those natural productions which are indispensable to the arts of civilized society, must advance very slowly, empirically, and expensively, unless guided by the lights of Geology.

"In Pennsylvania, at the Mauchchunk Coal Mines, a company lost, in one enterprize, $80,000, which could have been prevented by three hours' labor of a practical geologist: or, if the company had possessed such a knowledge of the science as should constituto a part of the education of every gentleman, the occurrence could not have happened. Blunders of equal magnitude, but not of equal expense, are committed, to my own knowledge, in every part of this country, in digging and boring for salt and fresh waters. It not unfrequently happens, furthermore, that articles, indispensable to domestic life, are imported, when, at the same time, they exist, perhaps, upon our own possessions. In confirmation of this remark, we have before us the fact, that roof slate has been freighted here from the north, while the same article exists in abundance within three miles of the city. It is also true that a comparatively fragile and decomposable sand-stone has been brought from Cincinnati to this place, for architectural purposes, when a granite of a more beautiful and enduring character, and admirably adapted to the same purpose, obtains in great abundance within four miles of the city. I think it probable, furthermore, that hydraulic lime has been shipped from Louisville to this place, when it might have been procured within the corporate limits of the city. Finally, the great abundance and variety of geological productions used in, and almost indispensable to, the arts of civilized society, which I have developed in a few weeks, and that, too, within a very small compass, ought to induce every young man who is receiving an education, and every gentleman of loisure, to devote a liberal portion of his time to this subject. We should be happy to increase these extracts did our limits permit.—*American Agriculturist.*

Knowledge is Power.—In a late admirable report by Horace Mann, Esqr., Secretary of the Board of Education of Massachusetts, the following striking exemplification is introduced of the maxim that "knowledge is power":—

"M. Redelet, in his work, '*Sur l' Art de Batir*,' gives the following account of an experiment made to test the different amounts

of force which, under different circumstances, were necessary to move a block of squared granite, weighing 1,080 lbs.

To draw the same stone along the floor of a roughly chisel-led quarry, it required a force equal to 758 lbs.

To draw the same stone over a floor of planks, it required a force equal to 652 lbs.

By means of a platform of wood, and drawn over the same floor, it required 600 lbs.

By soaping the two surfaces of wood, the requisite force was reduced to 182 lbs.

Placed on rollers of three inches diameter, and a force equal to 34 lbs. was sufficient

Substituting a wooden for a stone floor, and the requisite force was 28 lbs.

With the same rollers on a wooden platform, it require a force equal to 24 lbs only."

"At this point," says Mr. Mann, "the experiments of M. Redelet stopped. But, by improvements since effected, in the invention and use of locomotives and railroads, a traction or draught of eight pounds is sufficient to move a ton of 2,240 lbs; so that a force of less than four pounds would now be sufficient to move the granite block of 1,080 lbs; that is one hundred and eight times less than was required in the first instance. When, therefore, mere animal or muscular force was used to move the body, it required about two thirds of its own weight to accomplish the object; but by adding the contrivances of *mind* to the strength of *muscle*, the force necessary to remove it is reduced more than one hundred and eighty eight times. Here then, is a partnership, in which *mind* contributes one hundred and eighty eight shares to the stock, to one contributed by the *muscle*, or, while *brute strength* represents one man *intelligence* represents one hundred and eighty eight men!"

The following extract from the speech of J. T. Leigh, Esq. president of the Union Agricultural Society, Grenada, Miss., we copy from the Albany Cultivator:

"And while upon this subject of economy, let me say a few words about the ladies. They have it in their power, by prudent, orderly and economical management of their household affairs, to add much to the prosperity of their husbands. 'Tis in vain for the husband to strive, unless the wife supports and aids him by performing well her duty in doors. Let a due regard to her husband's situation govern her wants and desires; not to be governed by what other ladies have or do, who may be placed in a better situation in life, or who possibly may, by their extravagance, be reducing their husbands and families to difficulties, and ultimately to ruin—though justice to the ladies compels me to say, they generally in their departments perform their duties better than men. They possess more industry, prudence and economy; and have a more lively sense of duty to the interest of the family. To whom ought the husband to go, in matters of importance, for consultation and advice; pure disinterested advice? To the wife of his bosom. No matter how important the subject; my life upon it, nine times out of ten, he will find her advice the very best he can obtain. She feels she is deeply interested in everything relative to her husband and his affairs; and she advises under the highest responsibility—that of interest and love.

"But, says the bachelor, what shall I do, who have no wife?

"Are you a planter—*get one.* If you cannot get married, quit—quit farming, for no man can succeed well upon a farm, without the aid, assistance, advice and comfort of a wife. But mark—*let your wife be a dutiful daughter of a prudent mother.*"

Preparation of Night Soil.—The value of night soil, and its preparations, consist in the great quantity of ammonia or nitrogen it contains, in which it exceeds all other animal substances, bones excepted. The following, which we find in the Farmers' Magazine, is a plain and easy method of preparing this manure, in such a manner that its value shall be fully retained, while the offensive odor is effectually destroyed.—"To every 100 lbs. of night soil, add 7 lbs. of sulphate of lime (gypsum,) in powder; a double decomposition will ensue, and the result will be, instead of sulphate of lime and carbonate of ammonia, carbonate of lime and sulphate of ammonia, the latter a soluble salt that cannot be volatilized. It may now be mixed with other compost, or dried any way thought proper, and applied to the roots of the vegetable, to be again transformed into bread, butter, cheese," &c. It is probable that the mixture of the gypsum, as recommended above, thoroughly with the night soil, and then incorporating it with compost, will be the best method in which it can be used by the farmer.—*Cultivator.*

From the American Agriculturist.

Gent.—The following is a receipt for curing hams, which I tried last fall, and found superior to several other modes I had before tried, the hams and shoulders being far sweeter and better flavored and preserving well through the summer.

"Dissolve two ounces of saltpetre and two teaspoons full of saleratus in strong brine, for every sixteen pounds of meat; boil and skim, the above thoroughly, and add molasses in proportion to one gallon for each hogshead of brine.—Let the meat remain in the pickle three or four weeks, then smoke with hock downward."

Packing hams in oats in such a manner as not to allow two to come in contact, preserves them in a much better condition than any other mode I have seen practiced. C Starr, Jr.

Mendham, N. J., November, 1842.

White Carrots, *as a field crop.*—We have elsewhere that our paper, had frequent occasion to call attention to this valuable variety of roots, and we are glad to find in the N. E. Farmer, a notice which induces us again to speak on this subject.

It states that B. V. French, Esq., near Boston, Mass., raised this year over 22 tons per acre, on ground not particularly well prepared for roots. He attributes his success principally to subsoil *plowing* this land, in the spring of 1841. In addition to its being proverbially a great yielder, it possesses another important advantage in deriving a great portion of its nutriment from the atmosphere, and the beet-like protrusion of its roots above the surface render it much easier to gather than the ordinary carrot. We have cultivated them for years, and speak advisedly on the subject.—

Foot Rot in Sheep.—Having seen several recipes in the Albany Cultivator on the treatment of the foot rot in sheep, and having tried them all, to very little or no purpose, I discovered by accident a cheap and sure cure, without much trouble or injury to the sheep, viz:—Take a few bushels of lime, and put it near some place over which the sheep have to pass, say the bars; and as it is natural for sheep to jump, take notice where they alight, and place the lime there, about 3 inches deep. This did effectually cure my flock in about one week. The lime should be fresh and slacked, and not less than 3 inches deep; if deeper, it might take the hair off the hoof above the hoof. T. Bayard.

Wilmington, Del., 8 mo. 4th, 1842.

☞ Some of the Machines, &c exhibited at the American Institute are thus noticed in the Express—

"Vanpelt's tanning machine is a very ingenious contrivance, by which the hides and skins submitted to its operation receive a general rotary motion through the prepared liquor, being alternately immersed therein, and raised from it. By this machine the hides are also drawn between rollers, which press out from the pores of the hide, a large portion of the tanning with which they are saturated, thus leaving room for the entrance of fresh fluid on their immersion. This machine will save all the manual operation known in the tan yard by the term of 'handling.'"

Honest.—A village dentist advertises that he will 'spare no pains' in his operations to render them satisfactory.

"THE COLONIAL FARMER,"

Titus Smith, Editor; R. Nugent, Proprietor,

Is published semi-monthly at the Novascotian Office, Halifax.

Terms.—One copy, 5s.; Six copies, 25s.; Twelve copies, 45s.; Twenty five copies, 100s. per annum.—*in all cases in advance.*

With Agricola's Works, as follows:

One copy of each £0 11

Six copies of the Colonial Farmer, and one copy of Agricola's works..... 1 10

Twelve copies of ditto, with two copies of ditto..... 3 15

Twenty five copies of ditto, with three copies of ditto.... 5 10

☞ Every description of Plain and Ornamental Printing executed with neatness and despatch at the "Novascotian Office."