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THE COLONIAL FARMER,

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

VOL. 2. HALIFAX, N. S., AUGUST 1, 1842. NO. 3

THE COLONIAL FARMER.

HALIFAX, N. S., AUGUST 1, 1842.

DISSOLUTION OF STONES—USES OF DRAINING.

Many old men must have observed that the soil of a garden which was originally sandy or gravelly, becomes, where manure has been plentifully used, too stiff and clayey; unfit to work early in the spring, and liable to bake and become hard in dry weather. Such a soil will be much improved by limestone gravel, broken oyster shells, or bones broken into small pieces, stable manure, decayed vegetables, and peat, all possess the power of decomposing the hardest rocks, generally most rapidly when constantly wet. We have along our Southern coast abundance of slate rock which appears to be older than any of the rocks of the sandstone and gypsum districts. This slate contains a large quantity of pyrites, composed mostly of sulphur and iron, and this mineral when exposed to the air soon becomes iron vitriol, or what is commonly called green copperas, which dissolved by water is constantly rising to the surface through the small fissures of the rock; when it is decomposed very quickly, if it comes in contact with decayed vegetable matter; and somewhat more slowly by simple exposure to the air, letting the iron fall in a state resembling yellow ochre, which soon hardens, incrusting the slate with a brown rust, and uniting with rich mould formed from rotted manure, and changing it to a barren coarse gravel not unlike crumbled bog ore. Wherever a bed of wet peat lies upon the slate it will be found separated from the rock beneath by a layer of blue clay eight or ten inches in thickness, which is manifestly a portion of the slate disintegrated by the action of peat and water; it is often laminated like the slate on which it rests, it contains vitriol, and will with proper preparation yield a considerable quantity of alum. Bricks formed from it dry very hard but crumble to dust when exposed to a strong heat. The broken fragments of slate that underlay wet peat are entirely free from the oxyde of iron, or rust that is found on the surface of all those exposed to the air, and they have a worm eaten appearance caused by the solution of the portions of pyrites that were in the stone. Where wet peat rests on the hard blue whinstone, the surface of stones will be found soft and white like a soft white sandstone, and generally a considerable quantity of soft white sand, which is easily rubbed into an impalpable powder, and manifestly formed from the partial decomposition of the stones will be found among them. Occasionally in a cleft of this kind of stone may be found a decayed root of a brake which has left its figure upon the smooth face of the rock by depriving the part in contact with it of its iron and manganese, leaving it white, and much softer than the adjoining part. Even upon the granite, the most imperishable of our rocks, the effects of decaying vegetables are perceptible. It is not therefore strange that gravelly and coarse soils should become fine, and even clayey by cultivation, for many hard rocks contain the materials which form the best soils, but as there are in some rocks which are very widely diffused, immense quantities of the vitriolic mineral, (for this mineral is by no means confined to the slate,) and as this mineral changes earths, and even fertile mould to stone, we see the absolute necessity of draining, to prevent the vitriolic water from beneath from rising, and rendering our rich land barren, and for the same purpose subsoil ploughing is useful; for water will not rise above its level in a loose soil, but it will rise in solid clay, or minute fissures in rocks by capillary attraction, or that power which makes it rise in a lump of broken whinstone or loaf sugar when the bottom is placed in water. Thus we see in dry weather where the slate rock is bare, there is usually a line of copperas along the surface upon minute fissures, but none upon the larger cracks.

Upon all shallow soils therefore that rest upon vitriolic rocks, lime, as a manure must be nearly useless till they are thoroughly drained, for the quantity of lime commonly used would be almost immediately neutralized by the vitriol, before it could have time to decompose the vegetable matter; but limestone gravel would always do some good, for it would be changed to gypsum by the vitriol and separate its carbonic acid in an aereal state, the state in which it furnishes food to vegetables. In Scotland where there is a great proportion of vitriolic soil, it has been found that draining was absolutely necessary to make the land fertile, and that after draining lime was found very useful on most soils that abounded in vegetable matter. Lime has, *by chance*, been found very useful applied to an undrained vitriolic soil in a very dry season, while on the adjoining land, of the same description of soil, it had no perceptible effect, applied in a season when there was a sufficiency of rain. The vitriol will by degrees be in a considerable measure washed away from a drained soil, as we see that where the slate swells into lofty hills, the rock at the lower part of the hill is full of Pyrites, and has its surface covered with rust, while the upper part of the same hill frequently has a pretty good soil resting on a rock with very little pyrites or rust, but occasionally containing small serpentine veins of limestone, which make the slate useless for building stone, because the limestone decaying when exposed, causes the slate to divide into small angular pieces. It is probable that this slate was originally of one kind, and that water running down has in the course of ages removed a considerable part of the vitriolic mineral from the upper parts.

Vitriolic minerals are very generally diffused over no small portion of the earth, and a certain portion of this salt is probably necessary to fertility, because it serves to disengage the carbon from limestone in a state fit for the food of vegetables, but a very considerable part of the barren lands are rendered barren by an excess of vitriol, and the principal use of draining and sub-soil ploughing, is, on many soils, to get rid of the superabundant quantity of this mineral salt.

GRAVELLY SOILS.

Near the sea-shore gravelly soils resting on a coarse open gravel are often cultivated. This is accounted a hungry soil, which re-

quires a great quantity of manure, but it has certain peculiar good properties attached to it; in cold wet seasons it always produces better crops than clayey or loamy soils, and it never requires draining, except in situations where springs break out. It is always the best soil for fruit trees, and it always gives potatoes of the best quality. But if it should be cultivated till the roots of the grass have all disappeared, it becomes very hard in a short time after it is worked, and suffers greatly with a slight drought. This kind of land when broken up from grass should have potatoes ploughed in at once, the manure having been previously spread upon the ground, and the furrow should not be more than three inches deep; the ground should be immediately harrowed lengthwise with a light harrow, and the harrowing should be repeated when a few potatoes begin to show their tops breaking through the ground. The next spring, grain with grass seeds should be sowed, and the ground may be mowed for two seasons, after which it were best that it should be pastured for three or four; but as much of this ground is very hilly, and for that reason not suitable for frequent ploughing, it may by top-dressing be kept so mellow that it will bear mowing for a considerable time if a small quantity of lime and wood ashes are mixed in the compost. It is also very useful to give a dressing of bog moss (the plant "moss" and not Scotch moss, or peat,) to very dry hills in the fall; it will be found to increase the grass considerably on land that has been formerly well manured.

These gravelly soils are generally very stoney, and if a small piece were broken up for an orchard, the trees would succeed better if all the stones were left upon the ground, in long horizontal heaps upon the face of the hill, the trees being planted on the upper side of, and near to, the stone heaps. All open cultivated ground in summer becomes hard unless frequently stirred, and in dry weather gets into such a state that the rain runs through without wetting it, as it often in a great drought repels the touch of water as completely as a water spider. But the ground covered with half a yard of stones is always as loose and light as that which has been lately ploughed and harrowed, and will always imbibe the water that falls upon it. It is indeed in the same state as the soil of old woods, and for this reason almost every shrub that grows in woods will thrive in the edge of a stone heap, but will soon perish in clear land. The Raspberry which will never thrive in clear land if it is not much worked, will, if permitted, almost invariably take possession of the edges of stone heaps, where it always flourishes if wild roses and other shrubs are not permitted to overtop it.

Peat earth mixed with a gravelly soil in considerable quantities, is less useful than on clayey soils, for although it serves to prevent the ground from growing hard, and is really useful in a wet season, yet in a dry time it increases the dryness of the land, for it will for twenty years retain its property of parting almost instantly with water; but the dead turf from the surface of burnt softwood land, and even from the rocky barrens, is very useful on hard gravel, which will continue to give good crops of dry potatoes for many years in succession, if the manure is mixed with four or five times as much of this turf, which, although to the eye it appears to differ little from peat earth, yet retains moisture very well while it keeps the soil loose and light, and it also serves as well as rotted manure or decayed roots of grass, to keep the ground warm, for there is no soil which more quickly becomes cold than gravel, as we see on the approach of winter that the gravel will be frozen to the depth of a foot when the turf-coated soil of the burnt land will not show frost more than three or four inches, and in the spring the gravelly soil always thaws the most rapidly, showing that it is a powerful conductor of heat, which readily passes from the earth through it in the fall, and as readily enters the earth through it in the warm season, but the decayed grass sward and the turf of woods are bad conductors of heat, and when the surface is covered with such substances a more equal temperature is kept up in the soil, which is certainly useful to vegetation, for we see that in the "garden of God," in the old forest in its natural state, where the land is never impoverished, the surface is invariably covered with substances which are bad conductors of heat.

Apples.—We conversed a few days since with a gentleman residing in the vicinity of Boston, who has now upwards of 30 acres of land in orcharding, the trees in a fine healthy state, and in full bearing. He was then scouring the State, for the purpose of buying young and vigorous trees to enlarge his orchard much beyond its present extent. When we saw him he said he had eight hundred barrels of apples on hand in prime order, for which he could have three dollars and a half a barrel. He tells us that the demand for exportation is limited only by the supply; that to every part of the globe, where American vessels go, they are a profitable article of export, and that to an almost unlimited extent.

One merchant in Boston, applied to him last fall, for 500 barrels of Baldwin apples at two dollars and a quarter a barrel, to ship to Calcutta in the East Indies! He had shipped about the same quantity for several seasons, and with uniform success. Shipments to England, the West Indies, South America, the Mediterranean, and other places give equally good returns. The apples of New England keep much better than those raised farther South, and are preferred for shipping on that account.—*Worcester Spy.*

Why do we import apples? We ought to export them. In the greater part of this Province good apples can be raised by chusing situations sheltered from southerly winds, making the Orchards small, and permitting a belt of Firs to surround them; and in countries warmer than this they do not succeed well when planted in open exposed situations. Our Summer is not long enough to produce *all* the best kinds of this fruit, but it is sufficiently long for many kinds, and we can produce new kinds from seed. By skilful management many new varieties of good fruit may be produced. If seeds of ungrafted trees that produce good fruit are sowed, there is a much greater chance of a good variety being produced, than when the seeds of good fruit from a tree grafted upon a bad kind are sowed, because the produce most frequently resembles the stock rather than the graft; but stocks of the same kind with the graft can be procured by planting cuttings. There are many apple trees whose twigs may be made to form roots before they are separated from the parent tree. Slightly scratch the outer bark of a thrifty vigorous shoot near where it grows from the branch, and then bind a handfull of moss about it early in the season. The following spring it may be cut off and planted, and will frequently be found to have formed roots in the moss, but without any preparation cuttings may be made to form roots by careful nursing. The trees will generally prove dwarfs, but will be very suitable for producing seeds for new varieties. By planting two trees of a good kind near each other a cross is sometimes produced which is very good. Never take cuttings either for grafting or planting from an unhealthy or dead-hearted tree, for the defect will always continue. It is necessary to keeping up a large variety of good apples that new kinds raised from seed should be frequently introduced, for the practice of grafting is but the division of one tree into many, all which fail at the period that age naturally terminates the life of an apple tree. Young orchards should have the ground between the trees occupied the greater part of the time with some crop that is hoed and manured, as they will grow three more than twice as fast as those that are planted in grass land.—Ed.

Farmers should be more Communicative.—Although we have laid before our readers quite a number of valuable communications, every month, we are satisfied that there are many farmers

who might be of essential service to their brother farmers by communicating the result of their experience through our columns—and we call upon them to come out at once, without any reserve, and lend their aid to advance the agricultural interest. We do not ask for elegant and refined productions, for we know that nine tenths of our farmers have not had that opportunity of education which has been enjoyed by professional men. Only give us practical good sense, dressed in that plain garb which farmers so much admire, and you will have the satisfaction of having contributed your share to the common stock of agricultural knowledge. This every farmer should do. We would willingly afford more space to communications, even to the exclusion of some editorial matter.—*Central New York Farmer.*

☞ We say *amen* to the above, and would now, for the hundredth time, call on the farmers of Connecticut to send in their "*experiences.*" It is the duty of every farmer to "do good and communicate;" and he must be a supremely *selfish* man, who refuses to tell what he knows, for fear his brother farmers will be as wise as himself.—*N. H. Farmer's Gazette.*

[The best and most useful Agricultural publications are those which form a common Stock of the knowledge which has been acquired by the experience of many, and in every country there are numbers who have each learned something by experience which would be useful to many if published. When new breeds of cattle are introduced, or new farming implements; as it is well known that men are apt to over-praise what they wish to sell, these supposed improvements are viewed by most persons as doubtful, till experience has proved their value, when by publishing well attested, and detailed accounts of success, which serve to convince the incredulous, great service is done to the country. We are convinced that there are numbers in this Province, who could give their brother farmers some useful information, for as there are none who know so much, that they have nothing to learn, so, there are few so ignorant, that they cannot teach something that is useful.—Ed. Col. Far.]

POTATOES.

The first field culture of this root in Scotland was in 1739. They were left in the same spot of ground from year to year; a few were perhaps used in autumn, and the parent plants well covered with litter to save them from the winter's frost. The progress of the culture was afterwards greatly retarded by the fact that "potatoes are not mentioned in the Bible," which was deemed a sufficient reason for rejecting them. Ignorance of the proper mode of cooking them, (an evil which has not wholly ceased at this day,) also retarded their culture, "a person who had been invited to taste the first potato in the County of Forfair, about 1730, related that the roots had been merely heated, and that they adhered to the teeth like glue, while their flavor was far from agreeable. The food was about to be condemned through the ignorance of the cook, when the accidental arrival of a gentleman, who had tasted a potato in Lancashire, caused the rejected roots to be remanded back to the pot turf ashes, till they became as dainty as they had before been nauseous." "It is only within these forty years that any particular attention has been paid in France to the cultivation of the potato. They were long regarded as unwholesome, and only fit to be eaten by cattle and the most wretched human beings." It required all the efforts of royal authority, supported by royal example, to eradicate the popular prejudice against them. Now, so diversified is the manner of cooking the potato in France, that a gentleman is said to have dined a party of friends, sumptuously, entirely upon potatoes, cooked in thirty-two different modes.

Having been enquired of as to the process of extracting sugar from the potato, we subjoin the particulars as we find them in the Edinburgh Quarterly Journal of Agriculture—the discovery and the experiments having been first made, we believe, in the State of New-York.

The potatoes are first ground or grated in a mill, similar to, or the same as we denominate the grater cider mill, by which they are reduced with surprising rapidity, to a fine pulp, and from which, by the aid of a sieve and water the starch in great purity is readily obtained. It is then dissolved in water heated by steam let to it. A certain quantity of sulphuric acid* is then mixed with it, and heat being applied, the whole of the starch is converted into syrup. This is to be freed from the acid by adding quick lime, and then evaporating the liquid. The sugar remains after evaporation and is used for all domestic purposes. Its taste is that of a delicious sweet, and as an article of diet it is probably more healthful and less oppressive to the stomach than any other sweet substance in use. It is particularly useful in making sweetmeats, and may be used at table as honey.

There are various other uses to which this valuable root is now converted, that our ancestors never dreamt of. From the potato may now be procured bread, starch, jelly, sugar, molasses, beer, brandy, cheese, coffee, tapioca, dyestuffs, size, cleansing liquids, and medicine. The Saxons make from it a kind of cheese which retains its freshness for years if kept in a close vessel. It is prepared either by mixing sour milk or curd with the potatoes boiled and reduced to a pulp. One pound of curd may be mixed with five pounds of the mashed potatoe and put into a stone crock; it should be worked over every third day for a fortnight, when it may be made into small cheeses, which are dried in the shade, and then packed close. They are supposed to be best when three years old. A French Chemist has converted the potato into a substance resembling, and he says, superior to, coffee. He mixes some best olive oil with a certain portion of dried potato-flour, and then adds a small portion of coffee powder. Chemical ingenuity has likewise converted it into substitutes for arrowroot, chocolate, tapioca, and vermicelli. From the flowers is made a beautiful yellow dye, solid and durable, and showing its colour by candle-light, which when plunged into a blue dye becomes a perfect green. The potato is always used with excellent effect in steam-boilers, for preventing the gathering of a calcareous incrustation on their bottoms. The liquor drawn off in the process of making potato starch will clean silks, woolens or cottons without damage to the texture or colour. —*Cultivator.*

* The quantity of the strongest sulphuric acid should be one-hundredth part of the weight of the dry starch, but as it is not easy to procure this strong acid, about a sixtieth part of the weight of the starch, of common oil of vitriol may be used. After the scalded starch has become a sweet syrup, the lime to be added to it must be the quantity that will exactly neutralize, (or deprive of all acid taste) the same quantity of oil of vitriol that has been added to the syrup; the acid and lime will unite, become gypsum, and subside to the bottom after the syrup has stood at rest a while. It may then be carefully poured off and boiled to sugar.

Great quantities of potato starch are now manufactured near the city of Paris, which are used in cookery. Its price is always double the price of wheat flour. Scalded with milk, sweetened, and spiced it makes a pie much resembling a custard, and it is used for every purpose to which arrowroot was formerly applied.

In the fall a bushel of dry mealy bluenoses will give nine pounds of flour or starch, and the fibrous matter that remains will, when dry, weigh nine pounds, and will be equal for fattening swine, if scalded, to the same weight of Indian corn; but it is asserted in France that the proportion of flour continues to increase till February. It should be observed that the half bushel was heaped completely, being rather New York than Halifax measure, and that several hundred weight of the flour was manufactured. The potatoes were grated with a machine turned from a block of hardwood, in form resembling a common grindstone, 17 inches diameter and 5 inches thick, with its axis and crank. This was hung on a frame high enough to allow a large tub to stand under it, and the wheel was covered with grater made from thin sheet iron. A hopper sufficient to hold two bushels of potatoes was affixed to it, and the inside of the lower part of the hopper was lined with a narrow strip of grater. It was necessary that the lower edge of the grating wheel should always reach the water in the tub beneath it. As this was made by a person who had neither seen nor heard of such a machine, it might undoubtedly be much improved. It grated a bushel in 5 minutes, when weight was laid upon the potatoes, and two hands employed to turn the wheel.

As it is expected that the Gas works will soon be in operation here, the following Prize Essay which shews the value of the Ammoniacal water of the Gas works as a top-dressing for grass, will be in season.

ON THE BENEFICIAL EFFECTS OF AMMONIACAL WATER, COMPARED WITH OTHER SUBSTANCES, AS A TOP-DRESSING FOR GRASS-LANDS.

By Mr. Thomas Bishop, Land-Steward to Robert Smythe, Esq. of Methven Castle, Perthshire.

[FIVE SOVEREIGNS.]

It having been represented to Mr. Smythe that saltpetre is an excellent stimulant for the production of grass, he desired me to dress an acre of land therewith, and suggested the propriety of giving it a comparative trial along with other substances considered fertilizers. The field selected for the experiment had been three years under grass, the two last pastured with cattle; and consisted of a heavy damp loam, of an irregular surface, which had been *partially drained*, and sown out with a variety of grass and clover seeds.

On the 12th of April a Scotch acre was measured off along one side of the field, and sown with 1 cwt. of the best nitre, which cost	£1	16	0
A second acre adjoining thereto, with 1½ cwt. of nitrate of soda, at 25*s.* ℔ cwt.	1	13	6
A third acre, with 5 cwt. of rape-dust, at £7 ℔ ton,	1	15	0
A fourth acre, watered with 105 gallons of ammoniacal water, at 4*d.* ℔ gallon, diluted with five times the quantity of common water,	1	15	0
And a half acre sown with ⅔ of a cwt. of nitrate of soda (or 74 lb) mixed with 21 lb of common salt,	0	18	2

In proportioning the different ingredients experimented with as here stated, regard was had not to exceed in prime cost the expense of the saltpetre applied to the acre.

The apparatus used for distributing the ammoniacal water having become disordered before the dressing was completed, several spaces were left untouched with the liquid, which instantly became apparent from the lighter green tinge that the sward had acquired, where the allotted quantity had been given. To rectify this appearance, two labourers were sent the following morning with watering-pans and about five gallons of the undiluted liquid to make good the deficiencies, but instead of adding thereto five times the quantity of water, they only gave four, and by mid day the spaces watered with this strength of liquid had all become brown and scorched as with fire.

The acre of ground dressed with the nitrate of soda was the first that shewed its stimulating powers, by the dark green sward which it had acquired in eight days.

The ammoniacal water was the next, and was equally vigorous in twelve days, and soon surpassed all the other dressings for the season, the scorched parts gradually narrowing with borders of luxuriant herbage. The sward, dressed with rape-dust, was the latest that exhibited any benefit from its application, but improved greatly as the season advanced; and from the extra quantity that had been dropped around the bag at the time of sowing it, gave evidence that the proper quantity had not been applied, to shew fully its fertilizing effects, as the produce on this spot was not surpassed by any of the other dressings.

Although the remainder of the field was not in good condition to yield a crop of hay, it was thought expedient, for the sake of testing the experiment, to take hay from the whole field, and afterwards top-dress the hay-stubble on that part of the field which had not been operated upon; and on the 26th of July the crop was cut across both the dressed and undressed parts of the field. The produce in grass from 31 square yards, carefully measured on a crossing line and weighed, was from one acres dressed with nitre, nitrate of soda, and rape-dust, nearly the same, averaging from 98½ to 100 lb. The space dressed with nitrate of soda and salt 82 lb., and the undressed 55 lb; whilst the produce from the dressing with ammoniacal water weighed 126 lb. The produce in hay made from the different parcels of grass, carefully kept separate and weighed on the 2d of August, in good condition, was similar in proportion. After the dressing with nitre, nitrate of soda, and rape-dust, giving 31, 32, and 30 lb, being on the average one pound weight of hay from the square yard; that after the mixture of soda and salt somewhat less, and that from the undressed land only one-half pound; whilst that dressed with ammoniacal water weighed 46 lb, or a pound and a half per square yard, equal to 326 stones of hay per imperial, or 410 stones of 22 lb each per Scotch acre. The apparent anomaly of the grass watered with ammonia having lost less weight in being converted into hay than the others did, can only be accounted for by the singular effect that the ammoniacal water had in stimulating the growth of Timothy-grass (*Phleum pratense*) beyond that of any of the other dressings, and it is a peculiarity of this grass to part with fewer of its inherent juices in drying than the greater number of cultivated grasses do from being furnished with additional joints or valves on the flower-stems. Is not this observation of the effects of ammonia on the roots of Timothy-grass somewhat corroborative of M Liebig's assertion, that "certain substances are found to exercise a peculiar influence on the development of particular families. (Vide *Art of Culture.*) Nor is this the only instance that came under my notice, when examining the effects of the different dressings, particularly in the case where the mixture of salt and nitrate of soda was applied, an excess of hard fescue (*Festuca duriuscula*) became predominant, perfecting more seeds, and raising the flower-stems to a greater height.

After removing the hay crop, the remainder of the field was begun to be top-dressed on the 12th of August with the following substances, and for a farther trial of the effects of gas-ammonia on after-grass, I had a present of 110 gallons from the Manager of Perth Gas Works, which I reduced with the same quantity of common water as before stated, and applied to another or fifth acre, a sixth acre was dressed with 12 bolls lime-shells, slackened with bog-earth, at 3*s.* per boll,

	£1	16	0
A seventh, with 12 bushels bone-dust (slightly fermented), at 3*s.*	1	16	0
The eighth acre, with cocoa-nut dust, 6 cwt., at 6*s.*	1	15	0
The ninth, with 15 cwt. animalized carbon, at 2*s.* 8*d.*	2	0	0
And the tenth acre, with 30 bushels bone-refuse or sweepings, at 1*s.*	1	10	0

In this second experiment with other substances the ammoniacal water shewed a decided superiority, being not only the first to exhibit its stimulating effects, but in keeping up a continuous growth whilst the season permitted, nor did any of the other dressings previously given in the month of April shew an equal luxuriance in the growth of after-grass.

The acre dressed with cocoa-dust was the next that shewed its fertilizing influence, and the two acres with animalized carbon and the refuse of bones the latest. But as this last series of experiments was followed with a long succession of very rainy weather, which greatly impeded the looked for effect of the different dressings, it would only be waste of time to particularize other appearances farther than to say, that where the ground was perfectly dry, they all seemed to be beneficial, whilst in places saturated with moisture there has been no improvement, and this is a consequence that may, in all cases, be expected as to the effect of manures, where the land has not a complete drainage.

I am aware that some agriculturists and florists in this neighbourhood have suffered loss in the application of ammoniacal water for different purposes, not knowing the proper strength at which it might be profitably used. It is produced at three different strengths in the manufacturing of gas, which could be tested by instruments, but, for the purpose of top-dressing grass-lands, a very safe criterion can be had, by reducing the strength of a small quantity of the liquid by equal portions of water, until its effect, by trial on grass-sward, does not discolour the narrower leaves of grasses, farther than a tinge of lighter green, although it should blacken the broader leaves of ranunculuses, daisies, and others.

CABBAGE WORMS.—A writer in the Southern Cultivator says "he had a square of very fine cabbages in his garden, upon which the worms had commenced making great ravages. Pennyroyal was gathered and scattered over the cabbage heads plentifully, and the work of destruction ceased." The writer did not know whether the discovery was a new one, but it seems to have been a very easy and effectual one, and well worth a trial.—*Albany Cultivator.*

CURE FOR BLOODY MURRAIN.—Having cured several cattle of Bloody Murrain by the following recipe, I send it to you for publication in the Cultivator. Take one pint of fat, melt it—add one gill spirits of turpentine—then put in half a pound of sulphur, stir it till it is thin—put in a junk bottle, and pour it down the animal. —*Correspondent of Albany Cultivator.*

From the Central New York Farmer.

CULTIVATION OF CORN.

The Corn crop is, perhaps, second in importance to no other raised in the United States. In Central New-York, the crop of Indian corn is more important than any other of the grain crops, and any improvement in its cultivation, must of course be of great value to the farmer. We shall endeavour to give a brief view of the most approved method of cultivation with which we are acquainted, and if any of our readers have doubts as to which is the best method, we only ask of them to give both a fair trial, and communicate the result for publication in the Farmer. And in the first place, we suppose the ground to have been well ploughed and harrowed, and the planting to have been well performed. If the corn shall have been fortunate enough to escape the grub and wire worm, (which, by the way we consider very doubtful, although at the time of writing, May 26th, much of the corn is not above ground, the next operation will be to give it a dressing with the cultivator, if both ways or twice each way, so much the better; and hoe well, taking care to leave the hills free from grass and weeds. The corn should now be thinned to four stalks in a hill if planted three feet apart each way, and less if planted much thicker, and be sure to leave the best stalks. We think many farmers leave too many stalks on the ground, thereby preventing the ears from attaining that size which they otherwise would attain. If we do not greatly mistake, the crop of Mr. Barber, of Lee, whose cornfield was the admiration of all who saw it in the early part of last season, suffered considerably from this cause. Much, however, depends on the condition of the land—that which is rich requiring more stalks than poor soils. After the first hoeing the cultivator should be passed through as often as can be done consistently with the other labors of the farm, and should be continued until the corn is too large to allow a horse to pass through it. The second hoeing may be done before the corn attains very great heigth; but care should be taken not to make much hill. This differs from the method formerly practiced in using the cultivator, instead of the plough, and in leaving the surface level instead of hilling up as formerly. Of the superiority of the cultivator over the plough for cultivating the corn crop, any farmer will be convinced by using a good article a single day. Instead of breaking the roots of the corn and merely cutting a portion of the weeds, the whole surface between the rows is stirred, and if used twice in a row it is seldom that a weed escapes. There is little danger of using the cultivator too frequently where many acres are cultivated. We should be glad to give our field a dressing both ways at least every week. The advantages of good cultivation are not confined to the corn crop. The succeeding crop of small grain will receive nearly an equal benefit, besides the additional chance of succeeding well with the clover seed. We shall take occasion to inflict upon the reader some remarks in relation to harvesting corn when the proper season arrives. Until then our columns may be more profitably filled with other matter.

CHARCOAL AS A MANURE.

We wish to call attention to a paper under this title in the transactions of the New York State Agricultural Society, furnished by H Hepburn, Esq. of Lycoming, Pa. The facts there stated, agreeing as they do with what every one must have witnessed to a greater or a less degree, should secure for charcoal as a manure, a greater degree of consideration than it has yet received. As it is probable some of our readers may not meet with the "Transactions," we shall condense some of his statements for the benefit of such.

"During the last autumn business called me into Harford Co. Maryland. While there, I was surprised at the exceedingly luxuriant growth of a crop of grain, but lately seeded into a field on Deer creek, and also at the peculiar appearance of the soil. The soil upon which the grain was growing, had a remarkably dark appearance, and appeared to be so mellow and friable as nearly to bury the foot at every step. * * I inquired if the field had not been covered with charcoal, and was told that it had been. I inquired when it was done, and was told that it had been spread upon it more than *twenty years ago!* I then asked what was the general quality of the crops raised upon it, and was told they were invariably fine, both as to quantity and quality." Mr. Hepburn tries, among other experiments, one made by a gentleman in the coal business. "He had a large quantity of coal that had become too fine to be used in his furnace, and not knowing what to do with it, concluded as the easiest way to dispose of it, to haul it out, and spread it on his grass land. He spread it late in the fall, and for many years, he informed me he observed the most astonishing effect produced upon his yield of grass. The quantity was nearly doubled, and the good effect continued as long as he owned the property, which was at least ten years." Mr. Hepburn also states the important fact, that "wherever charcoal has been applied, *rust never affects the growing crop of wheat.*"

Every coal burner is aware that a vigorous and healthy vegetation always surrounds the old hearths, or coal beds, as the place where the coal has been burned is called. We have known a blacksmith who made his own coal, that always used the hearth for an onion bed, and his uniform success justified the use to which he appropriated those places. In another instance a farmer who was remarkable for his gardening operations, told us that his practice was to make his garden beds for his onions, carrots, &c., and then spread over them a layer of straw some ten or twelve inches in thickness, which was burnt on the ground. The charcoal and ashes made by this dressing was slightly raked in, and then the seeds sown. In this way, his crop never failed.

Mr. Hepburn remarks that he shall not attempt to explain the chemical action or affinities which impart such value to charcoal. We think the following quotation from Liebig, will exhibit one great cause of its efficiency. In speaking of the power of various substances to absorb ammonia from the atmosphere, he says:—"Powdered charcoal surpasses all other substances in the power which it possesses of condensing ammonia within its pores, particularly when it has been previously heated to redness. Charcoal absorbs 90 times its volume of ammoniacal gas, which may again be separated by simply moistening it with water." The experiments of Lucas given in the appendix to Liebeg, are also most striking proofs of the value of charcoal to vegetation, and the manner in which it operates. They show that plants thrive in powdered charcoal, and may be brought to blossom and bear fruit, if exposed to the influence of the rain and the atmosphere; a result almost impossible to obtain in any other simple substance, and which can only be owing to the facility with which powdered charcoal absorbs and gives out the gases, whether carbonic or ammoniacal. It is to this facility of absorption that charcoal owes its *sweetening* properties, as its effect on partially spoiled meat is termed.

As charcoal is almost indestructible, and its effects as a manure remain as long as it exists in the soil, it is possible that charcoal may be found one of the cheapest as well as most efficient manures for some crops, and on some soils. It appears evident from the manner of its action, that plants requiring the greatest supply of nitrogen would be the most benefitted by its application, and hence its efficacy when given to wheat. It could produce little effect on extremely wet soils, as alternations of dryness, to allow the contact and condensation of the gasses, and of moisture to render such absorption available, are necessary to give effect to charcoal. Charcoal has a physical, as well as a chemical effect on soils, decidedly useful. It renders them as far as it is present, light and friable; and gives additional warmth to them by its color, which absorbs and retains readily the rays of the sun during the day. It is not surprising that those preparations of night soil, in which powdered charcoal constitutes a large portion, should be found more effective and durable, than those in which its place is occupied by peat or even common mold.—*Albany Cultivator.*

AGRICULTURAL INSTRUCTION IN PRIMARY SCHOOLS.

The Agriculture of Bavaria is said to have improved more rapidly, in the last half century, than that of any other country, Scotland, perhaps, excepted. Before the French revolution it was behind that of the other German States. The lands then mostly belonged to the religious establishments. The cultivators merely lived; they did not thrive. When these lands were sold they were made into small parcels and almost every man became the proprietor of the portion he cultivated, upon a long credit. The great impulse to improvement was given to the young generation in the primary schools. In these were taught both by books and examples, Agriculture and Gardening. For this purpose, catechisms of gardening, of agriculture, of domestic economy, of forest culture, of orchard culture, &c. in small 12mo. volumes, with wood-cuts were introduced as class books for boys, and the like on the management of silk-worms, household economy and cookery for the girls; and

there was attached to every district school at least half an acre of land for experimental gardening where the scholars received recreation and instruction, in the hours of exemption from study, from the master, in the practice of gardening. And it was made an indispensible qualification in teachers to be able to give this instruction. "Since these schools have come into action," says a late traveller, "an entirely new generation of cultivators has arisen, and the consequence is, that agriculture in Bavaria is carried to a higher degree of perfection than it is any where else in the central States of Germany. The results of the whole of the information procured, and of the observations made, is, that we think the inhabitants of Bavaria promise soon to be, if they are not already, the happiest people in Germany."

The salutary influence of agricultural and horticultural instruction in common schools has not been confined in Bavaria to the improvement of the soil. As consequences which naturally follow the improvement of agriculture, the roads, bridges, and other public works have undergone a corresponding improvement; individual comforts have greatly multiplied, business of every kind has been improved, and human intellect, reanimated, as it were by the magic pen of a Hazzi, has burst its cerements and became an efficient aid in the noble work of improvement. The public roads are all lined with ornamental fruit-bearing or forest trees—and furnished with guide-boards, mile-stones, and seats, at intervals, of stones or sods for the weary traveller. This novel sort of education and the blessings which have flowed from it and the still greater blessings which appear in prospect, have resulted from the wise provisions of the Government, aided, and efficiently aided, by the active and patriotic philanthropy of M. Hazzi, the Editor of an agricultural journal at Munich, and author of the school catechisms of which we have spoken.—*Cultivator.*

From the Transactions of the Society for promoting Agriculture in the State of Connecticut.

OF FRUIT TREES.

Mr. Blakesley, of Plymouth.—My method of making a nursery is to separate my apple-seeds from the pumice in the fall of the year, let the seeds freeze one night in the latter part of winter, plant them in my garden in the spring, and after they have grown five or six inches high, or even when they are only leaved, I transplant them, and find they grow much better than when raised in the usual way. I have put corn cobs round my apple trees, at the distance of about a foot from the body of the tree, and have found them serviceable to the tree. My son has an orchard, on which he has put stones around his trees, at a small distance from the trunk, and thinks them beneficial to his orchard. I have never, however, found any thing so good for my apple trees as top-tow, laid on the land near the trees.

A neighbor of mine, an observing farmer, informed me some years since, that in the younger part of his life, he had liked to have ruined his orchard, by raising crops of red clover on the land, but that when his orchard was decaying he conjectured the cause, and left off raising the clover in his orchard, when it soon recovered. I never durst venture it myself. Many orchards in the country appear to me to be injured by this cause.

Mr. Ives, of Cheshire.—I have found the large red clover very prejudicial to my orchard. I used formerly to raise crops of clover upon my orchard, and mow them. But I found my orchard decaying, and immediately began to feed it, and it recovered. I have since had clover upon my orchard, but have been careful, by feeding it, to keep it from having any bloom, and it does not injure it, as it manifestly did when suffered to come to such maturity as to be fit for mowing.

I have seen like effects produced in the orchards of my neighbors from the same cause. They are convinced of the fact as well as myself, and they avoid the mischief.

AIR! PURE AIR.—The Wesleyan Methodist Magazine contains a copy of a Memorial of the Trustees of one of the chapels in the connexion, praying for the admission of pure air into the building. "Our ancestors," say the petitioners, "knew that they possessed stomachs, but it may be fairly doubted whether some of them were aware that every human being has a pair of lungs. Hence many places of worship, particularly country ones, are little else than large boxes; happily not quite air tight, for tragic events would then be common; but with nothing of design to supply the vital fluid."

THE MORGAN HORSE AGAIN.—After our last paper went to press, containing the statement of Justin Morgan, Esq. of Stockbridge, Vt., that his father brought the original Morgan horse from Springfield, Mass., we received a communication from Mr. John Morgan of Lima, in this state, confirming the statement of Justin Morgan, that the sire of the celebrated Morgan horses of Vermont, came from Massachusetts instead of from Canada, as has heretofore been supposed. Mr. John Morgan informs us that he resided in Springfield, Mass., near Mr. Justin Morgan, senior, previous to his removal to Vermont, and that the two years old stud which he took with him to Vermont, as stated in our last paper, by Mr J. Morgan, Jr. "was sired by a horse owned by Sealy Norton of East Hartford, Conn., called the 'True Britton, or Beautiful Bay.' He was kept at Springfield one season, by the said Justin Morgan, and two years after I kept him two seasons. This horse was said to be raised by Gen. Delaney, commander of the refugee troops on Long Island, and rode by him in the revolution. It was said that one Smith stole the horse from the General at King's Bridge, while the General was in the tavern: ran him across the bridge, and took him to the American army, near White Plains, and sold him to Joseph Ward, of Hartford, Conn., for $300. It was also said at that time, that he was sired by the noted imported horse called the 'Traveller,' said to be kept in New Jersey. Ward was a merchant, and kept the horse three or four years for a saddle and carriage horse, and traded him off to Norton, and Norton kept him for mares while he lived. The description of the Morgan breed given by Mr. G. Barnard, answers well to the description of the stock of 'True Britton.' His stock was all bright bays, some inclining to sorrel. I have always understood that Morgan kept the colt for a stud at Randolph, and was very celebrated for his stock."—*Albany Cultivator.*

In the Report of the Royal Veterinary School at Alfort, the singular fact is stated, that the beech mast, (*fagus castanea,*) or as it is called in this country, beech nuts, and which in many districts of our country, form no inconsiderable item in the means of fattening pork and keeping store hogs, is a violent poison when fed to horses. Bad effects having ensued from feeding the cake, remaining after the pressure of the oil from the nuts, to horses, M. Lefort of Champlette, sent to Alfort some of the oil cake made from the nuts, and some of the nuts themselves, for experiment. The horses evinced much disinclination to the feed, but the director forced on some of them a portion of the oil, and on others some of the cake from which it had been expressed. They all died within twelve hours after the administration of both. This furnishes another curious instance of articles of food, perfectly innocent to one animal, and yet fatal to another. Beech mast is the favorite food of the common pigeon, (*Columba migratoria,*) and multitudes of pigs have been wholly wintered, the last winter on this fruit.—*Ibid.*

PROTECTION OF CORN AGAINST CROWS.—Mr. O. M. Whipple of Lowell, Mass., says, in his statement to the Agricultural Commissioner of Massachusetts, that for 15 years he has preserved his corn from the depredations of crows, by sowing on his field a quantity of corn soaked in a strong solution of saltpetre. We can believe this, as no crow which might have eaten half a dozen grains of corn well saturated with saltpetre, would live long enough to bequeath his estate to his interesting progeny, though a scrivener were at hand, at the time of his making his meal, to draw his will. Saltpetre, judiciously used, possesses medical virtues, but when taken in excess, is destructive of life, and hence the protection it affords to seed corn soaked in a solution of it, against worms as well as crows.

The best *scare-crows* we have ever used, were bright sheets of tin suspended from poles, by wires; the poles of sufficient height, and in sufficient numbers to be seen all over the field.—Four or six, judiciously placed, will effectually answer for a field of fifty acres. Our mode of fixing them was this; to cut a pole of sufficient height, trimmed off all the limbs but the upper one; to the end of this limb, we attached, by a strong flexible wire, a sheet of tin, and planted the pole thus provided firmly in the ground on the destined spot. The limb left at the top, shoul project horizontally enough to allow full play to the tin. This attached, the slightest breeze gives motion to the tin, and consequently causes a reflection so sudden as to effectually frighten off the rows, or other birds addicted to picking up the corn. Three year successful use of the scare-crows, justify us in recommending tem to our brethren.—*American Farmer.*

TILLING CORN AND POTATOES.—Farmers are late this year in performing the first ploughing and hoeing; the cold first and then the wet weather contribute to this.

It is of no use to plough or hoe when the ground is muddy; but it is certain that stirring the surface when it is rather wet hastens the process of drying—and that stirring the earth when it is very dry contributes to render it more moist.

In tilling corn or potatoes, or indeed any other vegetable, we never promote their growth by merely hilling up or burying the roots deeper than nature has taught them to run; but it is often more easy to kill the weeds in the hill by burying them than by cutting them up; and most of the weeds buried are converted at once to manure, as any one may see if he will uncover a mess of weeds after they have been buried two or three days.

On the Use of the Cultivator.—This instrument is quite handy in stirring the surface of the earth when green sward is tilled, since it does not tear up the furrow as a plough will. But on old ground, without sward, the Horse-plough is a much better instrument than the Cultivator, since it renders the soil lighter and tears up the weeds more effectually and *buries* more than that or any species of harrow.

Many farmers fancy it very injudicious to cut or break any of the roots of corn or potatoes. They therefore run the plough or the harrow midway between the rows and leave the hoes to perform more than half the labor. Such farmers are governed more by fancy than by experience; for any one who will make the trial will learn that stirring the earth deep close to the *young* plant and cutting off millions of its little roots *will not check its growth.* It will only render the soil more light and more easy to be penetrated by the little prongs that shoot out almost immediately after they have been cut off by the plough or hoe.

If a plough is used therefore, it should run close as possible to the young corn and potatoes, on the first tilling, and turn a furrow from the plant. At the second ploughing this may be turned back again so as to leave the surface nearly *level*—not *even*: for we would have the surface rather rough than even.—The following rain will then partially move the earth in the absence of the plough and hoe. *Massachusetts Ploughman.*

THE HORSE-RAKE.—A very large proportion of farms within thirty miles of Boston have acres of mowing land on which a horse-rake would operate to advantage and save much labor. *Young* farmers have not you enterprise enough to give such a tool a trial? We have used one of these for many a day and can assure you it requires but little time to learn how to handle them well.

We have procured a number to be made in the most simple form and we will sell them at the factory cost, adding only the charge of bringing them into this city.

The price will not be far above four dollars each, and this is much less than any one can be made for singly, in any part of the country. With a little practice any lad of eighteen will rake an acre in a single hour; and he will gain enough in a single day to pay for his rake!

The rakes may be seen at the warehouse of Ruggles, Nourse & Mason, in Quincy Hall. They are for sale also at the residence of the editor of this paper, at Framingham.—*Ibid.*

THE POTATOE OAT.—*Editors of Cultivator*—In your paper of this month, is a letter of Mr. G. B. Smith, cautioning the public against the use of the Potatoe Oat, as having had an injurious effect on many horses. My experience being directly the reverse, I am called upon to entreat those who have used this variety of oats, and those who might be about to try them, to revise their judgment, and to ascertain whether some other cause than the oats may not have contributed to the ill condition of the horses fed on them. I do not raise many oats, but I have had the potatoe oat in preference whenever I could get them. In 1839, I had about four hundred bushels, all of which I fed to my horse teams, with chaff, cut straw and roots, and very little hay; and the remark of a friend, who had raised from Canada in the following spring, was, that he never saw my teams in quite so fine condition. That there is more nourishment in a bushel of the potatoe oat than in a bushel of the common kinds, the weight, 42 and 45 pounds per bushel, would indicate. I have no doubt that Mr. Smith has stated correctly what he communicated to him. It is the fear that the influence of his well known name may deter some of my brother farmers from availing themselves of what I consider a valuable addition to our means of feeding, that induces me to state publicly my experience.

JOHN MASON.

Charlotte, Monroe Co., N. Y. April 18, 1842.

KICKING COWS.—A writer in the Farmer's Cabinet, says:—"I have found a cure for this *kicking* disorder, in its most desperate state. It is merely to place the patient in a stall with a beam over her head, and fixing a running noose over her horns, throw the end of the rope over the beam and pull away, so as to raise her head pretty high in the air, but not so as to lift her legs from the ground: in this position she will not only be disabled from kicking, but will give down her milk without the least hesitation.

Hoof-ail and Sore Teats.—Cows are also liable to the hoof-ail, as well as sore teats, both of which are easily cured by the application of white paint laid on with a small brush; the body of the paint acting mechanically in preventing the action of the air on the sores, and the lead operating chemically or medicinally in drying and healing them. Care must however be taken not to apply the lead to the teats while they are suckling calves; and afterwards caution must be used at the time of milking, but no danger need be apprehended in the hands of careful persons. In inveterate hoof-ail it might first be necessary, either to cauterize the sore, or dress with blue stone, after which, and in all slight affections, white-lead dressing—in other words, painting the sores will be found sufficient to effect a cure."

The above prescription may be valuable—but we have had no experience to warrant our commending it.—*New Haven Gazette.*

CURE FOR THE HOOF-AIL.—While reading a cure for the Hoof-Ail, in the Cultivator, vol. VIII. p. 16, I was reminded of my own experience in attempting to cure that disease.

In May, 1825, I had a cow violently attacked with the hoof-ail, or foul hoof, as it is frequently called; and being but little experienced in the management of cattle, or the means of curing the diseases to which they are subject, I applied to my neighbors who I thought best informed on such subjects, for the necessary information. They directed me to draw a hair rope through the cleft of the foot, until it became raw and lacerated. I followed their direction, but found little or no benefit resulting from the operation. The animal still grew worse, hobbled about on three legs, declined in flesh, and was almost worthless for milk, the remainder of the season. A year or two after, I had another cow attacked by the same disease; and thinking it somewhat similar in its nature to a felon, I became convinced of the propriety of opening it. Therefore when the cow lay down, (which she frequently did,) with a sharp knife, I made an incision lengthwise through the skin on the bottom of the foot, where it was most swelled and inflamed. It bled pretty freely, and in a day or two after, I perceived matter making its way out from the cut, and in a few days the animal was well. Since that time, I have had a number of cows attacked by the same disease, and (when bad,) I have always applied the same remedy with the same success.—*Correspondent of Alby. Cultivator.*

VERMIN ON SHEEP.—Sheep are infested with several kinds of vermin, and common tick, maggot, &c. Young and lean sheep are most exposed to such complaints.

Those flocks are not troubled with ticks, where the lambs are regularly immersed in a decoction of tobacco, say from four to five pounds to the hundred, about ten days after the sheep are shorn. Several pinches of Scotch snuff deposited in the wool, in and about the neck and sides, is a good remedy in cold weather.

Maggots originate from fly-blows upon the wounds; those are avoided by dressing with tar, and destroyed by an application of honey, when spirits of turpentine would prove ineffectual.

To cure colds and running at the nose, a dose of tar is sufficient, in the months of June or July. If applied at and above the nose, it will prevent the grub in the head, and invigorate the health.—*Western Farmer.*

TO PROTECT LAMBS AGAINST FOXES.—We happened to be in a hardware store the other day, when a farmer came in and inquired for *Sheep Bells.* He stated that the only way in which he could protect his Lambs against the depredations of the Foxes, was by putting bells on a few of the sheep in his flock; when this was done, the lambs were safe. We thought the hint worth remembering, and have put it down here for the benefit of our readers.—*Farmer's Gazette.*

SALT, TO KILL WORMS AND GRUBS.—We have more than once called the attention of our readers to the use of salt for the destruction of worms in fields and gardens. A writer in the Genesee Farmer states that he has saved his corn for many years past by putting a little salt on each hill, at the rate of one bushel to the acre; that on a part of his field not salted, the worms totally destroyed his corn. We have never applied salt in this way, but we feel confident it would have a fine effect on land full of worms. The writer says that by salting the hill the worms are driven from it and feed upon the weeds and grass between the rows; they thus become useful laborers instead of arrant robbers of the choice products of the field. We hope many trials will be made of the virtues of salt. We can say nothing from our own experience, and can only give a hint to those farmers who are yearly complaining of worms and grubs.—*Massachusetts Ploughman*

From the Boston Cultivator.

EARTH WITHOUT HOPE.

BY AUGUSTUS GILL.

Earth without hope, to Man would be,
A dismal waste, a trackless Moor,
A cloudy sky, a shoreless sea,
A gloomy scene where tempests roar.

Earth without hope, a dreadful state,
For suff'ring feeble Man to be;
He's urged along to meet his fate,
And enters vast eternity.

Earth without hope, how dread and drear!
The sullen tomb, contains his friends,
The grave, engulfs what he hold dear,
He weeps and o'er their ashes bends.

But there is hope, Bethlehem's star
Shone forth with mild and fearless light,
When that blest anthem fill'd the ear,
On that eventful happy night.

O how it peal'd from Angels tongues,
It cheer'd and gladden'd all around;
He comes he comes the Saviour comes
A spirit stirring rapturous sound.

Where the christian sleeps it speaks of hope,
'Tis letter'd in the grassy mound:
It is a consecrated spot
'Tis hope inspiring hallow'd ground.

It is a place of sweet repose,
The sufferer there from pain's releas'd;
He's ended now his bitter woes,
And Earth's carroding cares have ceased.

The valley's clods do sweetly press
The peaceful sleepers quiet breast;
The wicked here from troubling cease
The weary pilgrims now at rest.

In gentle drops distils the dew
Upon this mansion of the dead,
How peacefully descends the snow
To robe in white his lowly bed.

The Sun at morn sends forth a ray
To cheer and glad it and illume;
And lingers still at parting day,
Upon this quiet lowly tomb.

The eyeless o'er him whispers rest;
The marble as it points to heaven
Seems to say he is now blest,
He is not here, he is risen.

Canton, Mass., July 20, 1842.

"THE COLONIAL FARMER,"

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