THE GLEANER:

ND NORTHUMBERLAND, KENT, GLOUCESTER AND RESTIGOUCHE

COMMERCIAL AND AGRICULTURAL JOURNAL.

D SERIES] *Nec aranearum sane textus ideo melior, quia ex se fila gignunt, nec noster vilior quia ex alienis libamus ut apes.* [COMPRISED 13 VOLUMES

EW SERIES, VOL. VIII.] MIRAMICHI, MONDAY, AUGUST 12, 1850. [NUMBER 42.

Agricultural Journal.

From the Genesse Farmer.

SUB-SOIL PLOWING.

Much has been said in favor of deep plowing and sub-soiling the earth, the subject has hardly begun to excite that general attention among farmers which it ought to command. There is scarcely one acre in a thousand on which a deep, mellow, and productive soil can be found, without breaking the pan, or compact mass that lies just below the surface of the ground. So far as the warm atmosphere can freely penetrate, with its oxygen, carbonic acid, ammonia and vapors, chemical action will be extended, roots will grow and rot, and fertile soil be gradually developed. The benefits of deep tillage do not all accrue immediately after the operation is executed. The formation of a deep, mellow and rich soil, by the most skilful use of natural elements and agencies is the work of many years. To attain this result, one needs not only mineral and organic matter in due proportions in the surface of the earth, but both minerals and mold of particular kind, and in a particular condition of solubility and combination.

After a man has deliberately made up his mind that it is better to own and cultivate good land than poor land, and that there is such a thing as improving the natural fertility of the earth, his first thoughts should be directed to the point, whether any field or part of a field needs draining. Stagnant water within three feet of the surface will rise by capiliary attraction to a degree fatal to that warmth and friability of the soil, without which its highest productiveness can never be reached. All under-draining should be into ditches at least three feet deep. But there are millions of acres of tilled land that need no artificial drainage, which will be greatly improved by deep, or subsoil plowing. The advantages of this mode of culture are the more speedy and decisive, as the manuring, liming, and washing of the land accompany the breaking up of the inert mass of clay or gravel below the surface soil. It is not pretended that this earth will instantly become fertile. Admitting that the cominuated clay really contains salts of lime, potash, soda, magnesia, and soluble sillica, it takes time to prepare these fertilisers for the nutrition of cereal plants. Salts of iron and alumina, such as copperas and alum, are apt to exist in excess, and require a little caustic lime to decompose them and form gypsum, or sulphate of lime. Plants that contain considerable nitrogen, such as peas and clover, and of course yield a liberal per centage of the alkali called ammonia, when they decay, are exceedingly favorable to the deepening of a thin soil, in connection with deep plowing. Every farmer should understand the difference in the economical value of vegetable mould. Suppose one has 200 lbs of cabbage, exclusive of water in one heap, and a like weight of pine saw dust in another. Which will form 50 lbs of the better mould? The solid organised matter is alike in each mass; and why should there be any difference in the economical value of 100 lbs of cabbage or 100 lbs of saw dust, either for feeding cows and children or feeding wheat and corn plants?

In principle, there is no difference in feeding animals, from man down to a coral or sponge, and feeding plants. All living beings need food adapted to their peculiar natural wants. Hence, place a baby oyster in saline water that contains not a particle of lime, and its stony covering must cease to grow. Nature is incapable of creating the first atom of lime, or of any other element consumed to form any plant or animal. A deep, fertile soil is one that abounds in the raw material for making bread, milk, and meat, in an available form, to the depth of twelve or twenty four inches, as the case may be. Is there anything unreasonable in saying that such a soil possesses a very great intrinsic value? A cubic foot of such land in the valley of the Genessee contains, on average, over a pound of common lime. This gives over 43,000 pounds of this mineral to an acre, within twelve inches of the surface of the ground. The writer is credibly informed by one of the best farmers in the State of Delaware that a million bushels of burnt lime are now annually used for improving the soil in that small State. One farmer pays $1000 a year for guano.

In the last number of the working farmer we find statements in regard to subsoiling from which we extract the following. James Carnaham, President of Princetown College, states the result of an unintentional experiment he made in 1848, in sub-soiling.

'I wished,' said he 'to subsoil a lot with a hard pan, and as I had only one team, I hired another to turn over the sod preceding the subsoil plow. He came and worked one day but did not return the next. As the time of planting was approaching, I directed my farmer to go on and plow in the common way as deep as he could. He did so. The following day the other plowman returned, worked a day (sub-soiling) and then was absent.

'The result was, the lot was plowed alternately with the common plow and subsoil. The whole lot manured and worked in the same way, except the subsoiling of some parts and some not.—The month of August was dry, the corn in the subsoiled suffered very little and that on the part not subsoiled suffered very much.

'When the corn was gathered we could distinguish the very row where the subsoiling was commenced and ended—*the ears were more numerous and of a larger size.* I did not measure the corn nor the ground but the difference was so obvious to the sight, that no one could doubt the superiority of the corn on the ground subsoiled.

'This year the whole of my corn ground was subsoiled and the yield was very satisfactory. The month of July was dry and hot, and the leaves of my corn did not shrivel, while those in the adjacent fields rolled up.'

Every farmer knows that a deep friable soil will take up more rain water without detriment to the growing crop, than will a shallow compact soil. For a similar reason moisture from below will more readily ascend in dry weather and supply the roots of needy plants with their liquid aliment. But do not forget that a soil sixteen inches deep requires twice as much mould as one only eight inches in depth. Now the richest mould is that formed from the carcass of a dead horse or sheep: but as such organic matter is attainable only in homoepothic doses, the farmer should test his skill in producing mould from clover, peas, corn, grass, and other vegetables, to mix with his subsoil. Beware of the folly of spreading farm labor over too large an area for the highest permanent profit.—Fifty acres of good land are more valuable than 200 of poor land.

From the Gardener's Chronicle.

WHAT SHALL I DO WITH MY LEAVES?

What shall I do with my leaves? Are they good for anything? asks a correspondent. Do with them! good for anything! Why, treasure them to be sure, as if they were coin of the realm; they are good for everything which a gardener has to do. They are the best of all shelter, the best of all materials for bottom heat, the best of all soil, the best of all drainage, the best of all manure. It is true they contain little or no nitrogen, but they rot quickly, are full of saline matters, on which everything that bears the name of plant will feed gluttonously, and from their peculiar structure will allow air to pass in and water to pass out with perfect freedom.

If we wish to know what leaves are good for, we have only to burn them and see what a quantity of ash they leave behind. All that ash is as much food for plants as beef and mutton are for us. It is the material which nature is perpetually restoring to the soil in order to compensated for the waste which is produced by the formation of timber. In wild lands, trees are annually thus manured; were it otherwise, a wood would be a roof of life overshadowing a floor of death. If we can remove the leaves from our plantations, it is only because of the artificial richness of the soil in which they grow. This sufficiently indicates the value of leaves, which are in truth hardly less important in their death than they were in their life, though in a different way.

LABOUR.

BY CAROLINA F. ORNE.

Ho? ye who at the anvil toil,
And strike the sounding blow,
Where from the burning iron's breast,
The sparks fly to and fro,
While answering to the hammers's ring,
And fire's intenser glow—
Oh! while ye feel 'tis hard to toil
And sweat the long day through,
Remember it is harder still
To have no work to do.

Ho! ye who till the stubborn soil,
Whose hard hands guide the plow,
Who bend beneath the summer sun,
With burning cheek and brow—
Ye deem the curse still clings to earth
From olden time till now—
But while ye feel 'tis hard to toil
And labor all day through,
Remember it is harder still
To have no work to do.

Ho! ye who plow the sea's blue field,—
Who ride the restless wave,
Beneath whose gallant vessel's keel
There lies a yawning grave,
Around whose bark the wintry winds
Like fiends of fury rave—
Oh! while ye feel 'tis hard to toil
And labour long hours through,
Remember it is harder still
To have no work to do.

Ho! ye upon whose fever'd cheeks
The hectic glow is bright,
Whose mental toil wears out the day
And half the weary night,
Who labour for the souls of men,
Champions of truth and right—
Although ye feel your toil is hard,
Even with this glorious view,
Remember it is harder still
To have no work to do.

Ho! all who labor, all who strive—
Ye wield a lofty power:
Do with your might, do with your strength:
Fill every golden hour!
The glorious privilege to do
Is man's most noble dower.
Oh! to your birthright and yourselves,
To your own souls be true!
A weary, wretched life is theirs
Who have no work to do.

From the London Family Economist.

OBSERVATION AND STUPIDITY.

Two lads were set to work together in the garden of a nurseryman; both were honest and industrious. They performed to the master's satisfaction, the work required of them, and remained long in his service. But between these two lads there was a great difference, and herein it consisted: day after day, and year after year, John went to the tool-house fetched out his spade, hoe, rake, or scythe, and used them as directed; and when done with, put them away again, without ever making an observation, or asking a question, that would add one jot to his stock of information. In course of time, he must, through mere mechanical habit, have become more expert in handling his tools, but it may be questioned whether in the lapse of years he gained one idea even on the subject of his own calling.

Henry, on the other hand, constantly observed what passed before him. He not merely followed the directions given him, but tried to understand their principle, and if he could not perceive it, civilly inquired of his master, or one of the elder men, *why* such a thing was to be done in such a manner? If he saw two men do the same thing in a different manner from each other, he watched the result of the two methods, and treasured up in his mind the comparative value of each. The handle of one of his tools was frequently broken, it was of willow wood. 'Perhaps,' thought he, 'this is not a suitable handle for the purpose, ash is more tough and close, and might answer better.' He fitted in a handle of ash-wood, and found it durable. This was a piece of knowledge that he could never forget. Then he made his remarks on the different soils and situations chosen for certain plants. He observed the modes of culture employed by the most skilful of the men. If an injury occurred he endeavored, if possible, to trace it to its cause, and guard against it in future. Thus he was continually acquiring practical skill and experience; and sometime suggested a hint for improvement, which his superiors found worth adopting. And can it be supposed that he, like John, would remain all his life a mere digging machine! No! his diligence and attention qualified him to rise whenever a vacancy occurred, his master felt pleasure in promoting him, and at the same time advancing his own interests, by securing so intelligent and faithful a servant. He has been many years foreman or superintendant of the whole concern, and is generally supposed to hold a sort of partnership in the property.

USEFUL HINTS.

New Bread.—New bread is very unwholesome, as it undergoes a change like new beer. It gives off carbon, and imbibes oxygen, and should therefore be left to cool where the air is pure, and not in a cellar or cupboard. Stale bread is one-fifth more nutritions than new.

To preserve Eggs.—Put them for one minute in water just about to boil, and they will afterwards keep well for a month: or if soaked a little while in sweet oil, they will keep for half a year.

To take Ink-stains out of Mahogany.—Touch the part with a feather dipped in a weak solution of vitriol, rub it quickly off, and if the stain be not removed, repeat the operation: or in recent ink-stains, put a little salt of lemons on the spot, and rub off with a cloth wetted in hot water.

Japanese Cement, or Rice Glue.—This elegant cement is made by mixing rice-flour intimately with cold water, and then gently boiling it: it is beautifully white, and dries almost transparent.

Blood cement for repairing Copper Boilers, &c., is made by pounded quicklime and ox-blood mixed together; it must be applied fresh made, as it soon becomes so hard as to be unfit for use.

Corns.—Wear shoes fitted to the foot, with thick soles; sufficiently large to be perfectly easy, without being so large as to prevent a firm step.

Shoes.—When about being measured for shoes, place the foot firmly on the ground, as the foot is larger in a standing than in a sitting posture.

Clothing.—Light colored clothing is cool in summer and warm in winter.

Colds.—A daily exposure to the outward air is absolusely necessary to secure us against the injurious influence of our variable climate. For cure of catarrh, reduce the amount of food, take exercise, keep the bowels open, and bathe the feet in warm water at bed time.

Cramp.—Cramp is apt to attack the calves of the legs and toes soon after retiring to rest. Get out of bed and exercise the muscles vigorously.

To make Jannock, or Oatmeal Bread.—Put about six pounds of fine oatmeal in a kneading pan, add to it a small quantity of leaven, previously steeped in warm water, and let it stand all night.—In the morning add a little yeast mixed with warm water. Knead the whole well up, but very light. Lay a coarse wet cloth in the dish, for the purpose of giving a shape to the loaf; put the dough in the cloth, and turn it upon the baker's shovel, which must be first sprinkled with dry oatmeal. Get it into a hot brick or tile oven as quickly as possible, and let it bake for three hours.