

## Agricultural Journal.

From the Albany Cultivator.  
HAY MAKING.

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

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

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

In making clover hay, we are decidedly in favour of not exposing it much to the sun after it is first wilted. We speak from experience having practised various modes, and we are certain that it may be made with less labour, and that it is of far superior quality when cured in cock, than in any other way. When the swathes are a little wilted pitch them into cocks, laying it up in such a manner that it will stand the weather; which is easily done by taking a little care; examine the hay from day to day to see how the process of curing advances, and when it seems to be so well made that with what it will dry in handling, it will do to put in the barn or stack, turn over the cocks, loosen up the bottoms a little with a fork, and proceed to load it. Clover hay thus cured is not likely to heat in the mow or stack, and from having every leaf and head saved, will be found to be very nutritious and much relished by all animals. In fact, we believe that clover hay properly cured will make more flesh, milk, or butter, than any other hay, pound for pound. The prejudice against clover has arisen from the bad manner of curing it. Knocked about as it frequently is, wet and dried by turns, it loses its leaves and heads and becomes little else than a mass of tasteless stems, which no animal will eat.

## FARMING CAPITAL.

From a communication by Mr. L. Durand, we make the following extracts:—  
"I think it correct to say, that a liberal expenditure of capital in farming, will ultimately pay better than when laid out in any other business. The difference between capital laid out in farming, and that laid out in manufacturing, is, that all which is expended in the latter beyond the actual profits of the goods manufactured, is a dead loss, while that which is laid out on the farm, under good management causes it to improve and increase in value from year to year. In manufacturing the interest on the capital may be received within six months or a year. In farming

it may not be so, but it will give its return in a series of years. Another item which has been much neglected by farmers, is that of purchasing good implements to carry on their farming operations. In this country, where labor is high, a farmer should obtain as many labor-saving implements as can be used to advantage. Although these implements may cost more at first than common ones do, they will find their account in it at last. Get the best implements to be had even if you have to go out of the State for them, and you will thus be able to perform more work in a better manner besides saving much labor and preventing a great deal of fretting and ill temper. Try it and see."

## THE GOOD OLD PLOUGH.

Let them sing who may, of the battle fray,  
And the deeds that have long since past,  
Let them chant in praise of the tars whose days  
Are spent on the ocean vast;  
I would render to these all the worship you  
please,

I would honor them all even now;  
But I'd give far more, from my heart's full store  
To the cause of the Good Old Plough.

Let them laud the notes that their music floats,  
Through their noble and glittering halls,  
While the amorous twirl of the hair's bright  
curl

Round the shoulder of beauty falls;  
But dearer to me are the songs from the tree,  
And the sight of the blossoming bough;  
Oh, these are the sweets that the rustic meets  
As he follows the Good Old Plough.

Then how jocund the song as it comes along,  
From the ploughman's lusty throat;  
Did the hunter's shout ever yet give out  
To the brown woods a merrier note?  
Tho' he follows no hound, yet his day is  
crown'd  
With a triumph as good, I trow,  
As though anler's head at his foot lay dead,  
Instead of the Good Old Plough.

Full many there be that we daily see,  
With a selfish and hollow pride,  
Who the ploughman's lot in his humble cot,  
With a scornful look deride.

Yet I'd rather take a good hearty shake  
From his hand, than to wealth I'd bow;  
For the honest grasp of that hand's rough clasp  
Has held to the Good Old Plough.

All honor be then to those grey old men,  
When at last they are bow'd with toil;  
Their warfare then o'er—why they battle no  
more,

For they're conquer'd the stubborn soil,  
And the chaplet each wears are his silver hairs  
And ne'er shall the victor's brow,  
With a laurel'd crown to the grave go down,  
As the sons of the Good Old Plough.

## From the American Agriculturist.

## SUBSOIL PLOUGHING.

We are highly gratified to observe an increased attention to subsoil ploughing, for we consider if it could be generally introduced among us, it would be found one of the greatest agricultural improvements of the age. In vol. I, page 166, we gave full details of the successful operation of the subsoil plow in England, where it was shown, that by its use, crops may be doubled without adding a particle of fertilizing materials to the land. Two years subsequent experience by the farmers of that country, corroborate the benefits to be derived by the free use of the subsoil plow, for grain as well as root crops. Mr. Tilley recently asserted before the Cornwall Agricultural Association, that he had the last year raised hundreds of roots of mangel-wurzel, weighing 25-lbs. each; that the crop of these per acre, as well as carrots and turnips, was at least doubled by subsoil ploughing.

Five years ago we had a piece of land containing 2½ acres of a hard clay soil, which, with the best management we could bestow upon it, yielded less than 150 bushels of potatoes to the acre, and 400 of sugar-beet—while parsneps, carrots, or any long roots, it would scarcely grow. We had just heard of Mr. Smith's subsoil plough in Scotland, and determined upon an experiment. We had no plough of this description, nor could we then obtain one; we accordingly took the mould-board off from a large, strong road plough, and used the point of the share alone for subsoiling. We ploughed the land in the fall of the year, by taking a common plough and one yoke of cattle, and turning over a surface furrow six inches deep. We then followed directly after this in the same furrow, with three yoke of cattle attached to the road plough, stirring the soil eight inches deeper,

making fourteen in all. This we then bountifully limed, and the next spring as bountifully manured and planted it with roots, and the following autumn obtained over 1,100 bushels of sugar-beet to the acre from it and other crops in proportion.

Subsoil Ploughs may now be had in this city, of excellent pattern and strongly constructed, from \$10 to \$15 each, which will stir the earth 12 to 18 inches deep, requiring from two or five yoke of cattle to move them, according to the nature of the soil, and the depth required to plough.

## CHARCOAL AND ITS USES.

Five years since, I received from Italy several hundred mulberry trees, comprising the rarest and most tender varieties, packed in pulverised charcoal dust, in tight boxes. On their arrival, I found the roots as well as the buds had grown to the length of six inches. The growth was of course perfectly white, and when exposed to the atmosphere wilted immediately—the trees were in the most perfect order.

This led me to try various experiments with charcoal dust: such as striking soft wooded geraniums, of one summer's growth, wax plants, grape cuttings, and various other plants, with complete success. I likewise use it in growing vegetables, planting grape-vines, trees, shrubs, &c., in considerable quantities, on strawberry beds, potato fields, glass and wheat lands, sown broadcast. Last February I cut a young grape-vine into a single eye, in the open garden, and freely manured it with charcoal dust. Before the 10th August it had grown 32½ feet. My gardener soaked a kernel of sweet corn in spirit of ammonia double F.F., for the space of 12 minutes, and planted it in a pot filled with pure pulverised charcoal dust, which he then thrust in a well-prepared hot bed: in 24 hours it had grown one inch; other grains he soaked 25 minutes, and killed the vital principle of the kernel. So strong were the fumes of the ammonia, that it destroyed a bed of cucumbers in 20 minutes, placed in a saucer in the midst of the vines under glass. The object in putting it there was to kill insects, which it did most effectually in three minutes: and had it been then removed, the probability is the plants would have been improved by the gas—there were cucumbers on them at the time six inches long.

Charcoal as manure will be found invaluable: it is pure and incorruptible, absorbs from the atmosphere 60 volumes of ammonia gas, 55 of sulphuretted hydrogen, and 25 of carbonic acid gas. By uniting with oxygen, it forms carbonic acid gas, and constitutes about 42 per cent. in sugar, 42 per cent. wheat starch, 52 in oak wood, 51 in beech wood, 49 in pure vinegar, 39 in tartaric acid, and 41 in citric acid: as carbonic acid gas, it is found in all cultivated soils, in all waters, and in the atmosphere. It is absorbed by every plant that grows, the carbonic acid gas being composed of oxygen and hydrogen: it will therefore be readily conceded, that being necessary to plants, in all stages of their growth, there cannot be applied to them a substance more requisite. Charcoal from pine wood is the best for agricultural purposes, on account of its fine texture, which enables it to absorb moisture, together with the other gases before enumerated, more rapidly, and may be easily incorporated with the soil, where it protects plants, not only from decay, but worms. It insures them without cessation, all the elements most required, and essentially necessary to their healthy growth, and gives them a beautiful green appearance, and luxuriance, not obtained by the use of any other substance as a manure.

All farmers are familiar with the fact that coal-beds, where pits have been formed for the purpose of preparing charcoal, produce a most luxuriant growth of vegetable substances or weeds. It has been generally supposed by those who have witnessed the fact, that it was caused by the ashes remaining on the bed, which is not so. It is owing to the hydrogen, oxygen, nitrogen, azete, &c. absorbed by the carbon. If the coal were even deprived of all the qualities specified, its black color alone would make it valuable, if only to attract the sun's rays and thereby warm the soil.

## CHARCOAL.

(To the Editor of the N. Y. Mechanic and Farmer.)

Mr. Fleet.—Nothing has surprised me more than the fact that so little is known of the use and benefit of charcoal. Five years ago I witnessed immense benefit from its use in Ohio. It is estimated that the wheat crop of France

has been increased many millions of bushels yearly. An English gentleman, travelling in France, within two or three years observed the general improvement of the wheat crop, from what it was years before in the same section of the country. Upon enquiry, he found that the farmers had been using fine charcoal, sowed on the ground broadcast. In 1842, R. L. Pell, Esq. of Pelham, Ulster County, N. Y., cultivated a field with a hoed crop, and used three hundred bushels of oyster-shell lime to the acre; in the fall he sowed it down with wheat, and added fifty-two bushels of fine charcoal to the acre. The wheat before sowing had been soaked in strong brine, and then rubbed in charcoal and slacked lime. The product was at the rate of seventy eight bushels and three pecks to the acre.

Good Farming.—It may be laid down as a standing rule, and as a guide to direct our exertions, that all good farming, the whole of that process by which bad land is to be converted into good, or land naturally good and productive is to be continued in that state is comprised in the three following operations of husbandry. 1. To carry off all stagnant and superfluous water by means of judicious draining. 2. To return through the medium of manure, the strength and fertility which has been extracted from the land by cropping. 3. To eradicate all noxious weeds, that the strength of the manure may be thrown into the crops and not unto the weed.—Rawstone's Remarks on Lancashire Farming.

CURE FOR THE STRETCHES.—Sheep sometimes stretch their noses out on the ground and around by their side, as if in severe pain. This is frequently occasioned by an involution of a part of the intestine within another, called, when occurring in the human subject, *intussusceptio*. Immediate relief is afforded, when this last is the case, by lifting the animal by the hind legs, and shaking a few times, when the pain disappears.—American Agriculturist.

## SPRING AND SUMMER BEER.

As yet I have seen nothing in your pages relative to making Beer. Therefore I will present a recipe, and if you think it worthy of a place in the Farmer, please insert it:—

A handful of hops and some boughs of spruce boiled in 2 or 3 gallons of water. Put 3 quarts of molasses and ¼ lb. of ginger in a cask that will hold 15 gallons, and pour the liquid in and shake them well; then fill up with cold and warm water, so that when the cask is full it will be about blood warm. Then pour in one quart of good yeast, and shake it well together. It will be fit for use in about 12 hours.

Half of a small vial of essence of spruce may be used instead of bows, and should be put in with the molasses and ginger. I have made beer by this recipe for a number of years, and know it to be good.—Michigan Farmer.

MANURE FROM COWS.—It has been ascertained by experiments that a cow voids in a year 13,000 lb. weight of urine; such urine contains 900 lb. of solid matter, finely dissolved (including 290 lb. of ammonia), which solid matter would be more fertilizing than that guano, and if valued at the same price (£10 per ton) would be worth £4 a year; multiplying this by eight millions, the number or cattle said to exist in the United Kingdom, we should have thirty-two millions sterling as the value of the urine, supposing it to be worth no more than guano. It is impossible to estimate how much of this runs to waste, but one-tenth of it will amount to nearly as much as the whole income tax of the Kingdom. In Flanders, where manuring has been long practically studied, and liquid manures are highly esteemed, the urine of one cow kept up all the year round is valued at 40s. a year.

Let any dairy farmer, with these facts before him, make a fair calculation of what is lost to himself and to the country by the hitherto unheeded waste of the urine of his cattle, and he will see the importance of taking some steps for preserving it in future.

## Colonial News.

## Nova Scotia,

Halifax Herald, Aug. 7.

BOUNDARY MONUMENTS.—Ninety-nine castings in iron were landed yesterday from on board the Boston packet brig Acadia. They were consigned to Mr Wier,