fully blossomed, that the full juice and nourishment of the plant may be retained in the hay. By the adoption of this system, the hay is cut in better season, it can be more easily secured, and is much more valuable. Nor is the strength of the plant lodged in the seed, which is often lost. The great advantage of converting under ripe herbage and grass into hay is now beginning to be known. There is much more saccharine matter in it and it is consequently more nutritious. A crop of clover or sainfoin when cut in the early part of the season, may be ten per cent lighter than when it is fully ripe; but the loss is amply counterbalanced, by obtaining an earlier, a more valuable, and more nutritious article; while the next crop will proportionably be more heavy. The hay from old herbage will carry on stock, but it is only hay from young herbage that will fatten them. When the stems of clover become hard and sapless, by being allowed to bring their seeds towards maturity they are of little more value as provender, than an equal quantity of the finer sort of straw of corn.'

The mode of making clover hay, and that of all herbage plants, as practised by the best farmers, is as follows. The herbage is cut as close to the ground and in as uniform and perfect a manner as it is possible to accomplish, by the scythe kept constantly sharp The surface having been in the preceeding spring freed from stones and well rolled, the stubble after the mower, ought to be as short and smooth as a well shaven grass lawn. That part of the stems left by the scythe is not only lost, but the after growth, is neither so vigorous nor so weighty, as when the first cutting is taken as low as possible.

'As soon as the swath or row is thoroughly dry above, it is gently turned over (not tedded or scattered) without breaking it,sometimes this is done by the hand or by a small fork; and some farmers are so anxious to prevent the swath from being broken, that they will not permit the use of the rake shaft. The grass, when turned over in the morning of a dry day is put into cocks in the afternoon. It is impossible to lay down any rules for the management of hay after it is put into cocks; one thing is however always attended to, not to shake out, or scatter or expose the hay oftener than is necessary for its preservation; N. E. F.

Weeds.—Be careful not to permit any weeds to ripen their seeds on your lands. If you have not leisure to dig them up by the roots you may cut them off with a scythe or a sickle before their seeds are sufficiently grown to vegetate. If the seeds of pernicious plants are never suffered to become ripe you will be sure eventually to destroy them. Even the Canada thistle which is very hard to subdue, will eventually disappear if you cut it down often enough to prevent its seeds from coming to rity for several years in succession.

Select the ripest and best seeds from as are most forward and vigorous, mprove your *breed* of vegetables, nilar to that by which the breeds improved by the celebrated rs of cattle. New and improved wheat, peas, beans, &c, &c, duced by observing among me individual stalks, pods, were distinguishable from er degree of health, luxuess, earliness, or some other ng and preserving them till sufficiently multiplied arge scale.

Soiling.—This is a term applied to the practice of feeding domestic animals on new mown grass, or other green crops, in racks, yards, stables, &c. Lorain says of this mode of farm management that 'The farm yard manure acquired by soiling, and that introduced by the roots of the grasses, create in the course of a single round of crops, such an immense improvement in the soil, that after the hay harvest commences, (which is great in consequence of the grass saved by this practice,) an almost perpetual harvest ensues until the corn is cribbed.

'Each crop is heavy in proportion to the ground occupied by it. The labour greatly exceeds what would readily be imagined by those who have not observed the practice; still it may or ought to be partially introduced; especially by wealthy farmers, who have many workers in their own families. Also by those who have but little land in proportion to the labour they can readily obtain from their children, &c.

'It should, however, be remembered, that success is not to be expected, unless a full supply of green grasses, proper for this purpose, have been provided. Also, the very great trouble and perplexity occasioned by red clover, in consequence of the cattle and horses being salivated by the second and third crops of this grass.

'Every farmer should soil his working cattle and horses, whether he may or may not enter into the general practice of soiling. A very small extent of ground will be sufficient for this purpose. This may lie so near to his barn, that the trouble will be little more, if as much, as going to the pastures after them. The grass and rich dung saved by this practice will be very valuable to him.

VEGETABLE LIFE.

The first point that should engage the attention of the enlightened agriculturest, is to ascertain the nature and situation of those minute vessels by which plants absorb water from the soil and the atmosphere, and by which these principles are modified and circulated to every part of the vegetable, and are converted into the plant itself. So minute are these vessels, that even microscopic observation has not been able to detect all their intricacies. But their general structure and arrangement have been ascertained. And it is found that they bear a most striking analogy to those vessels of animals by which nutriment is conveyed, in ceaseless circulation to every part of the system. In every plant we find one set of small vessels, running from the roots to the extremities, through which the sap ascends, while in its progress it is undergoing those changes that will fit it for becoming a part of the vegetable. These vessels resemble the arteries in the animal system. When the sap is thus conveyed to the leaves and other extremities of the plant, it there comes in contact with the atmosphere, gives off its redundancies, and absorbs water, and perhaps other principles essential to the plant. The leaves of plants, therefore, perform nearly the same functions as the lungs of animals. A second set of vessels, exterror to the first and mostly confined to the bark, now conveys the food of the plant, thus prepared, to every part that needs nourishment; even to the very roots from which it proceeded. These vessels correspond to the veins. Other vessels are found in plants, corresponding, probably, to those similarly situated in the animal system; yet too complicated for explanation on this occasion. Suffice it to mention, that in vegetable, as well as in animal economy we find the principle of life, itself inscrutable—modifying and controling every operation and keeping the wonderful machinery in ceaseless play.

Hitchcock's Address.

SYMPTOMS AND PROGRESS OF THE ROT IN SHEEP.

In the first stage of the rot, the sheep is in the frequent habit of rubbing the upper lip against the fold, or its own fore legs, or any hard substance; also of drinking a greater quantity of water when at the sheepfold than those that are sound, and showing a disposition rather to lick off the moisture from, than to crop the grass. In the second stage, the lips, nostrils and throat become swollen; the animal is feverish, insatiably thirsty, and almost incessantly visited by a sort of dry cough. In the third and last stage, the eyes become sunken; the eyeveins, small, discolored and nearly bloodless, the eye-balls lived and dim, with whites exceedingly pale, the burrs of the ears swollen, and free from wax; the liver, lights, and throat ulcerated; and the passage of respiration being stopped, the animal is suffocated. 'I was led to this experience,' says the writer, when very young in business, by an old shepherd who had been more than forty years upon the farm. Pointing to a sheep rubbing its lip against the fold, and acting otherwise in the manner above described.—That sheep, master, said he is touched with the rot. The best thing I can recommend you to do with him is, to take him home before he is too far gone. give him some ground oats, and make him tidydish meat and kill him.' I did so, as sheep will thrive upon oats for some time after they are first affected: and when the sheep was opened, I discovered that the liver was full of things resembling plaice, and its lights just beginning to become ulcerated. The next sheep I found in the first stage as above mentioned, I suffered by the way of experiment, to take its chance, and it died, by suffocation in the third stage, as above stated, which was the result of *at least* a dozen experiments.

N. Y. Memoirs.

HIGH CULTIVATION.

It is not an uncommon complaint among farmers 'that the times are hard.' Is it wonderful that with some they are so? They are 'hard' because their crops are small, because they fail to bestow the proper cultivation upon them. Concentrated action is efficient action; and it is this only which gives large agricultural results. But to this an obstacle presents itself nearly insurmountable. Our farms are in general too extensive, and the labour of the farmer is spread over too extended a surface. And yet, instead of selling a single acre most of our farmers covet many more. If farmers however, would thrive, they must change their policy; they must concentrate their labour; they must give to few acres the care, now usually bestowed on many; and if necessary to this, shey must diminish their farms. Many an acre of corn, and many of rye, now yield only 10 or 12 bushels and even less. Many an acre is mowed whose burden—if it may be called a burden—amounts to scarcely half a ton. How much wiser—how much more grateful, to give to these acres a proper cultivation and gather bushels for pecks, and nearer tons for hundreds! This, I conceive, is at present, the great error of our farmers generally. They adopt a diffusive, desultory mode of operation, which keeps their lands poor, and themselves poor also. The only [illegible] by which the benefits of a thrifty, productive husbandry can be enjoyed, is to change the present system for one