

as he could. Land being cheap and labour dear, and the land co-operating powerfully with the labour, it was profitable to draw as much as possible from the land. Labour is now comparatively cheaper and land dearer. Where labour has risen in price four fold, land has risen ten fold at least.

2. The evil of pressing too hard on the land, has also been much increased by the bad mode of plowing up and down hilly land, which, by exposing the loosened soil to be carried off by rains, has hastened more than any thing else the waste of its fertility.

3. The neglect of manure is another error. It is traced to the same cause with excessive cropping. In the early stages of cultivation in this country, it was more convenient and more profitable to bring new land into cultivation, than to improve old land. The failure of new land has long called for the improvement of old land; but habit has kept us deaf to the call.

4. Among the best means of aiding the productiveness of the soil, is irrigation—a resource which abounds in this to a much greater extent than in any other country.

5. Mr. Madison conceived it a gross error that horses should be so generally used instead of oxen, and his reasoning is pretty conclusive in favour of the ox.

6. Too many neat cattle are kept in proportion to the food provided for them. As a farm should not be cultivated beyond the point at which it can be kept in good heart, so the stock of cattle should not be kept in greater number than the resources of food can keep in plight. If a poor farm is unprofitable, so are poor cattle.

7. Of all the errors in our rural economy, none perhaps is so much to be regretted, because none so difficult to be repaired, as the injudicious and excessive destruction of firewood. It seems never to have occurred that the fund was not inexhaustible, and that a crop of trees could not be raised as quick as one of wheat or corn.—*American Paper.*

EDUCATION OF SHEEP.—We were highly pleased a day or two since, by hearing an intelligent farmer from New Salem state, that the dispositions of sheep in regard to leaping fences and rambling, are the results of education. On his farm, sheep have fed quietly for thirty years, in a pasture enclosed by a common stone wall, and have never shown any disposition to get out. One of his neighbours thought he must have exercised the powers of a witch over the flock, to make it so contented. And what, reader, think you was the process by which he charmed them? It was simply confining them to a yard in the winter. His flock are of his own raising. They have never been allowed to leave their pen in the winter. Where permission to do this is granted, especially when snow is on a part of the ground, and is deep and solid under the walls, the sheep pass from place to place with ease, and find the rich spots in the fields: as the snow wastes away gradually, they learn from day to day to leap higher, and when the snow has entirely disappeared, they have so practised and learned the arts of climbing and jumping, that a common stone fence is no barrier against their reaching the spots where the best feed is to be found. After this it is exceedingly difficult to keep them where you would have them feed. A young flock, with no badly educated old ones to lead them astray, will never give you trouble, if you do not shamefully neglect your fences, or suffer the sheep to roam when the snow-banks reduce the height of the fences. Is there not good sense in this farmer's advice to his brother farmers, that they give their sheep a good education.—*New England Farmer.*

GEOLOGICAL SURVEYS.—We observe with pleasure that a resolution has passed both branches of the Legislature of Louisiana, ordering a geological survey of that State. In nearly all the States, geological surveys are in progress or completed, under the direction of their respective Legislatures. "State Cabinets" are among the provisions in all the surveys, and in Pennsylvania, "County Cabinets" are also provided for. Agriculture, the mechanic arts, and school education, have already been greatly benefited by these surveys, and a knowledge of geology and other sciences among all classes and sections of our Republic. Extensive tracts of land, formerly not worth fencing, are now, by the use of marl and other deposits discovered by geologists, valued at from fifty to one hundred dollars an acre. Chrome yellow, which a few years ago sold for fifteen or even twenty dollars a pound, is now offered at twenty-five or twenty-seven cents. Granite quarries, iron, lead, copper,

and zinc mines, have in many instances been discovered by geologists, and their working and application shown.—*N. Y. Tribune.*

HAMILTON COUNTY, OHIO, Nov. 1840.

TO THE EDITORS OF THE WESTERN FARMER.

GENTLEMEN,—A friend of mine related to me a few days since, the result of an experiment made in feeding hogs, which may be interesting to your readers. He took four of the common breed of hogs, from his field, all as near the same age, size, and condition as possible; and after ascertaining what quantity of shelled corn each animal would eat per day, without waste—and which he found to be about seventeen pounds—he weighed each hog and penned them two in a pen. To the one pair he fed thirty-four pounds of shelled corn per day, and to the other pair he gave seventeen pounds of corn meal made into mush. At the expiration of four weeks, each one was again carefully weighed, one of those fed on dry corn had gained but three pounds—he was afterwards found to be diseased—the other had gained twenty pounds. Those fed on half the quantity of corn ground and made into mush, had increased twenty-three and twenty-eight pounds.

These results convinced me of the economy of not only grinding or chopping, but of cooking the food for all animals.

A SUBSCRIBER.

We have long been convinced of this, and have repeatedly urged its adoption, and are pleased to see that the practice is already becoming common. In the above experiment, besides the saving in quantity consumed, the gain in the extra increase of those fed on the cooked food, was no small matter. It is evident, however, that the hogs themselves, must have been of a very ordinary breed—had they been at all akin to "Oteco," a western Berkshire sow, the increase in weight, from a daily allowance of eight and a half pounds of corn meal, must and would have been very different. We saw a proof of the effect of even a slight cross of the improved breeds in a lot of ten on the farm of W. Neff, Esq. of this county, which were pigged last April, and are now in the pen and in process of being fattened. They will weigh, we are confident, at least 300 pounds nett, by the end of December. They are only one fourth bred English Graziers. When so slight a tinge of good blood will do such wonders, is it not surprising that our farmers do not all strain a point to improve their long nosed, long legged corn cribs.—*Western Farmer.*

ON CLOVER SOWING.—The red or broad clover is usually sown with barley in England, unaccompanied with other grasses; in this cast ten pounds of seed per acre is the least quantity that ought to be sown, but if the crop is wished to be thick and fine, four or six pounds more of seed should be added, for if this plant be sown thin on rich land, the stalks will be so large and rank, as almost to unfit it for the food of cattle, unless cut into chaff, therefore, by sowing thickly, the plants, although thicker in the swathes at the time of cutting, will make much finer hay, and be preferable for every purpose of feeding, although the larger the stalk, and the stronger the crop, the greater is its nutritious property considered. Red clover should always be cut so soon as the first blossoms are expanded. When other grasses are mixed with the clover to form perennial pasture, the following mixture is most approved, viz: six pounds red or broad clover, three pounds Dutch white clover, two pounds yellow clover, and one peck and a half, or three gallons, of Pacey's perpetual rye-grass—these, well mixed and accurately distributed, form the necessary quantity per acre. But, after all, many excellent farmers increase the above quantity; and it is false economy to grudge a full allowance of seed. The grasses to be sown as soon as the barley is sown, harrowed, and rolled, when a single time of the harrow on this pulverised and rolled soil, is sufficient to cover it as deep as is requisite.—*Olier Leaf.*

SMALL BIRDS GREAT BLESSINGS.—I wish our intelligent farmers could be awakened to the importance of preserving robins and other small birds, as a means of aiding in their work. The inhumanity which suffers every lazy lubber of a boy who can rest an old king's arm over a stone wall, to kill or frighten every poor linnet that sings in the fields, and every robin-red-breast that dares eat an unripe cherry and save a child from the dysentery, is a shortsighted piece of selfishness. These harmless birds live upon grubs, and other worms and insects, and the slight inroads they