

turn and then ploughing it under in spring. I found that if the dung was spread by the 8th of October or thereabouts, it answered this purpose; but I found also *that my crops were much better* than when the dung was immediately ploughed under. This was so contrary to what I was trained in my youth, that I was for some years afraid to give publicity to the fact, until I had made it the subject of repeated trials.

Judge Garnett, of Va., wrote the Albany Cultivator in 1839, says the Country Gent., bearing on the same point, as follows:—"I began penning my cattle late in the spring, and continued it until frost, in pens of the same size, moved at regular intervals of time, and containing the same number of cattle during the whole period. These pens were alternately ploughed and left unploughed, until the following spring, when all were planted with corn, immediately followed by wheat. The superiority of both crops on all the pens which had remained unploughed for so many months after the cattle had manured them, was just as distinctly marked, as if the dividing fences had continued standing: it was too plain to admit even of the slightest doubt. A near neighbor, a young farmer, made the same experiment on a somewhat different soil, the year before, with results precisely the same. Similar trials I made and saw made by others with dry straw, alternately ploughed in as soon as spread, and left on the surface until the next spring. In every case the last method proved best, as far as the following crop would prove it. The same experiment was made by myself and others of my acquaintance, with manure from the horse stables and winter farm-pens, consisting of much unrotted corn offal; and without a solitary exception, either seen by me, or heard of, the surface application, after the corn was planted, produced most manifestly, the best crop. Upon these numerous concurrent and undeniable facts,

my opinion has been founded that *it is best to apply manures on the surface of land*. All these results undeniably prove that the surface application was best, although the kinds of manures differed considerably. That evaporation cannot thus act seems to me to be unquestionably proved;.... for, *if it did*, then the land of summer cow-pens, ploughed up as soon as removed, would, in every case, have produced better crops, than that of the unploughed, instead of *doing it in none*." Believing the fertilizing elements of manures to be soluble in water, he maintained that they passed into the soil as well from their own gravity, as from its possessing a greater attraction than does the atmosphere, for every substance in solution which constitutes the food of plants. If a loss of plant food is the result of evaporation, he says,—this is a result always going on, and why does it not impoverish the soil, even without any cultivation whatever? Yet neither partial nor total barrenness is ever known to be produced by any other cause than incessant culture without manure. Even the gas escaping from exposed manures he thought to be utilized by the foliage of vegetable growth. Again, the rains dissolve and carry down the valuable elements of the manure, from the surface, to a proper depth for the use of the plant roots; while if buried below the surface, these soluble elements are washed, to a great degree, beyond the reach of the plants.—And he quaintly adds that his observation of Nature had not brought to his knowledge a single exception to *her* practice of depositing on the earth's surface all the putrescent substances of every kind which appear designed to preserve her fecundity.

[Let these statements from experimental farmers be well considered, as they bear upon an important and highly practical subject, interesting to every tiller of the soil that applies manures.]

BREEDERS' DEPARTMENT.

WARNING AGAINST THE CATTLE PLAGUE.



MINISTER Clay has addressed a letter to the Secretary of State, dated St. Petersburg, Oct. 17, in which he says:

I deem it my duty to warn the United States against the importation of the cattle plague

into our country. Being a farmer, and feeling a great interest in such subjects, I have read everything upon the subject which is accessible, and I will give you only the result of my conclusions and observations. The cattle plague is the Russian cattle pest in this country. It is always more or less prevalent, and generally