

and at the same time involving but very slight cost and but little labor, is to scatter plaster (gypsum) over the manure in the stable and also over the heap. This causes the volatile principle to become fixed, so that it no longer escapes into the air. A few dollars thus expended will save as much manure of this kind as is frequently found in a ton of guano; from six to eight hundred per cent. can be made on all the money thus expended.

To secure this from loss by the air is not enough, for we gain nothing if we guard against the air and then suffer the rain to carry away every thing saved by our caution—mere saving at the spigot and losing at the bung. For this reason the water which falls on stable or barn-yard manure should not be suffered to run off. When it does, it carries away all of its most valuable parts. There is so much carelessness, such a total disregard of economy in this respect amongst our planters and farmers, and such an entire variance from common prudence, as cannot either be explained or excused. Whilst very many have been induced to economize their manure, yet I have unfortunately seen many farm yards so situated as to lose all of their valuable matter before it is applied to the land. The most skillful Engineers and Chemists could not devise better locations to deprive their manures of all valuable properties than those selected by many of our farmers. A barn yard into which the stable manure is thrown is placed on the side of a hill with a southern exposure, subject to the full influence of the sun, and exposed to filtration, not only from the rain which falls on it, but that from contiguous buildings and sometimes from a contiguous field. Very often, too, it is near to a running stream to which the water from the yard has an easy flow, and thus, when the time comes for the application of the manure, its most valuable parts are polluting the atmosphere and the waters of our rivers, instead of fertilizing the adjacent fields.

If there be not enough of weeds, straw and litter thrown into the barn-yard to absorb and retain all the water which may fall in it, then convenient pits should be dug, filled with corn stalks, straw or other litter, into which the water should be conducted. Those pits should be so arranged that when one is filled its overflowings should run into the next one, so that all the liquid drainings could be saved and carried to the fields when wanted. Into these pits should be thrown all the refuse matter of *every kind pertaining to dwelling houses*, and over them plaster should be plentifully strewn. If this plan was universally adopted throughout the State, I am very sure that a much greater amount of manure would be annually saved, manure now suffered to escape, then would equal in value all the guano used in our State, and that too with but trifling labor and very slight expense. As it has been said that the consumption of sulphuric acid is a fair criterion of the civilization of a country, so it may with greater truth