

This table would not be quite accurate if allowance be made for rows around the entire outside, as in that case there would be one more row each way than the number of squares. Thus, in a square plot of one acre, with the rows three feet apart each way, there would be, say 69 rows each way. As two of the corner trees would count both ways, we must add to the 4840 hills, (in the table,) 4 times 69 hills, less 2, or 274, making the total number 4114. These figures are illustrative only, and not exact, as the precise number of rows in the instance given is a little over  $69\frac{1}{2}$ .—*American Agriculturist*.

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### MANURES.

There are comparatively few farmers in this country, who are aware how great is the loss of substance during unchecked fermentation. They have little regard to the collection, the fermentation, the preservation, and the economical application of manures. During unchecked fermentation, nitrogen in the form of ammonia, may be detected, passing off in large quantities—at the sametime, that carbonic acid and other substances are liberated profusely. It is well to preserve the decaying substances from wasteful exposure to air and moisture when practicable, and to sprinkle gypsum occasionally over the surface of the yard and heaps, to serve in arresting the escape of ammonia. It is now well known by all experienced farmers, that one of the most advantageous methods of applying manures is by making them into a compost beforehand,—thus supplying absorbent materials, so as to take up and prevent the escape of any of the more valuable volatile portions; and refuse of all kinds should be added in order to hasten the decomposition of substances which, if not so applied, would decay but slowly. Fish refuse we have already announced, is about to be employed on a large scale in the preparation of a valuable artificial manure, both for home use, and for exportation; and it will no doubt, from the comparative moderate price at which it will be produced, supersede guano in foreign markets. It will form a valuable and important export. The subject of liquid manure ought to engage more of the attention of the farmers of all extents. Farmers are now convinced that it will not do to let a large portion of the valuable washings of their manure escape to the road, or be wasted by evaporation. All that is wanted, is to provide some cheap tight receptacle, to receive and retain the liquid. For a trial it might be constructed of old boards or planks packed with clay behind—so as to be thoroughly tight and retentive. After this rude trial, the farmer will lose no time in procuring a more perfect and permanent receptacle of brick or stone. The liquid may be pumped out and used with a water cart, or simply pumped upon the compost heap—others prefer to throw ashes, plaster and other absorbents into the manure tank to soak up the liquid.

It is common too, so as to prevent an overflow from surplus water finding its way into the the tank, and to prevent washing of the manure heap, to provide drains to carry off the water dropping from the eaves of the buildings. A tank 10 feet long, and 6 feet wide, would suit many farmers, and would give little