

tion, character and mode of action; and it is but owing to our present knowledge of these relations that we may henceforth rationally decide whether the one or the other kind should be used for the improvement of particular soils.

It is apparent that soils of a proper mechanical texture, such as are, to an equal extent, both binding and porous, which furthermore possess the required power for retaining moisture without permitting, however, an injurious accumulation of water in their body; which also have the capacity of absorbing and retaining gases, or show, in general, such qualifications as are marks of a high state of culture, and more or less characterized by the presence of a proper quantity of humus in them; it is apparent, I say, that soils of this description will be more benefited by the application of the putrefied than fresh variety of stable manure. The latter may even act injuriously on the condition of these soils, by increasing the quantity of humus already contained in them, far above the proportion which is considered to be proper and most fit for prospering vegetation; whilst the putrefied stable manure, which in the course of putrefaction has lost most of its humus, will supply nothing but the deficiencies of ammoniacal and mineral matters that may occur in these soils, and with them, all that these soils want for being restored to fertility.

All classes of soils, with the exclusion of their extremes, such as stiff clays and light sands, possess more or less the properties above alluded to, or may easily obtain them by their own exertions, in a regular course of cultivation. For all these the application of putrefied barn-yard manure is the most advisable and rational. This is not less the case with regard to the improvement of meadow land. Here is no loosening, nor any other mechanical effect intended to be produced for the purpose of improving the texture of the soil, and the application of humus, therefore, of no use whatever. A manure for meadow land is rather expected to contain a maximum of directly nourishing substances in a form ready for assimilation, and as it can only be applied as a top dressing, to possess such physical properties as will most facilitate its uniform distribution over the ground. In both respects, the putrefied manure deserves the preference. It contains, as we know, its fertilizing principles in the most concentrated form, and being, besides, reduced to a state of great fineness and subdivision, offers advantages, as to its management, which fresh stable manure, on account of its coarseness, cannot equally present.

Stiff clay soils and light sandy soils, on the contrary, re-