

disgusted with the smell in a house or camp where I have occasionally been when it was cooking.

There are no doubt exceptions, and we may sometimes find good American Pork, but very seldom. It is very rare that we find a barrel of such a description as the purchaser would buy for his own eating: it may spend well with workmen, but I rather doubt it; if they feed sparingly of it, they will require something else to make up the deficiency.

In treating of the selection of Swine for Stock, I should not omit to mention that the boar should not be less than one year old.

Having in my former letters treated of stock of various kinds it is my intention in my next to treat of *feeding* generally, which I think is of the greatest importance to the agricultural interests, and probably more neglected and worse managed than most other parts of husbandry. There are general rules which should never be forgotten, but yet unforeseen incidents may intervene and unavoidable accidents may interrupt and partially frustrate and oppose the most reasonable and well meant designs of

A FARMER.

Sunbury, May, 1844.

(Continued in our next.)

MANURES.

By repeated cropping, the best soils become exhausted of their fertile properties, while naturally indifferent soils require the administration of certain qualities, before they will yield a due return to the labours of the husbandman. There are, no doubt, soils so naturally rich in some parts of the world, that, though used for twenty or more years in sowing successive grain crops, they show no indications of impoverishment; yet even they in time must be exhausted, and therefore, in all circumstances, manures, or artificial fertilizers, require the consideration of the husbandman. In our country (Great Britain) they are of the first importance.

Manures are of two classes, both of which have distinctive characters, and perform different offices in the economy of vegetation. The first of these comprehends all animal and vegetable decomposing matter, and is principally employed in feeding the plant, augmenting its size, and sustaining the vital energy. The second operates more on the soil and decomposing matter than in directly contributing to the support of the vegetable. The first kind has been called animal and vegetable, and the second fossil manures. Under this second class are ranked not only lime, marl, and gypsum, but sand, gravel, and clay, so that all the meliorations which are effected on soil by blending and compounding the original earths, are composed within its limits.

The animal and vegetable manures, which are putrescent in their nature are foremost in importance and dignity. They consist of certain elementary parts of animal and vegetable substances, elaborated by a natural chemical process in the course of the decomposition or decay of the bodies. The excrementitious matter or dung of all animals is no other than the remains of vegetable or animal food which has been received into the stomach, undergone there a partial dissolution, and been thrown out as unserviceable for the further nutrition of the system.—From this universal decay of organised matter, and its conversion into fluids and gasses, it would seem that animal and vegetable substances, and excrementitious matter, are solvable into each other, and are only different parts of the same original principles. The essential elements of them all are hydrogen, carbon, and oxygen, either alone, or in some cases united with

nitrogen. Conveyed by liquids or moist substances into the ground, these elements are sought for as nourishment by the roots of plants, and so form the constituent principles of a new vegetation. Inasmuch as flesh consists of a greater concentration of these original elements than vegetables, the manure produced by carnivorous animals (man included) is always more strong in proportion to its bulk than that discharged by animals who live only on herbage. Experience fully proves that animal and vegetable manures are but varieties of one kind of principles; their actual shape and appearance being of much less consequence than the degrees of strength in which these principles reside in them.

Whatever be the value of the elementary principles of manures, practically they are of no use as manure till they are disengaged by putrefaction. It may be further observed, that putrefaction is in every instance produced by the elementary principles being set at liberty either in a fluid or volatile state. If a quantity of stable dung be piled into a heap, and freely exposed to all varieties of weather, it soon heats and emits a stream of vapour, which is often visible as a cloud over it. These vapours, and also the odours sent forth, are gasses escaping, and the heat is constantly diminishing in weight and volume; at the end of six months, if there have been alternate moisture and warmth, not above a fourth of the original essential material remains to be spread on the field; there may be in appearance nearly as much substance, but it is comparatively of little value—the real manure is gone, and what remains is little better than a mass of unputrified rubbish.

It may be safely averred, that no principle connected with agriculture is so little understood or thought of as that which has been now mentioned. We therefore crave the most earnest attention to it by every reader of these pages. Generally speaking, the excrementitious matters, thrown to the dung-hill are treated with perfect indifference as to the effects of exposure and draining away in the form of liquids. It cannot be too strongly stated that this is a gross abuse in farming. The putrescent stream contains the very essence of the manure, and should either be scrupulously confined within the limits of the dung-hill, or conveyed to fresh vegetable or earthy matter, that it may impart its nutritive qualities.

A knowledge of this important truth has led to the practice of making compost dung-heaps, in which the valuable liquids and gasses of different kinds of manure are absorbed by earth, or some other substance, and the whole brought into the condition of an active manure for the fields. Hitherto, it has been customary to speak of dung-hills, but there ought to be no such objects. The collection of manure from the farm yard and offices, should form a *'dung-pit'*, not a *'dung-hill'*; and the manner of making and managing the contents of this pit on the best principles is well worthy of our consideration.—*Chamber's Information for the People.*

EXPERIMENTS MADE TO TEST THE VALUE OF GUANO MANURE.—“I first witnessed its effects, as a powerful fertilizer, in the growth of early potatoes, applying a little round the shoot, soon after its first appearance above ground; a greater luxuriance of growth was perceptible in the stalk a few days after, and having added a little more, previous to earthing them up in the usual way, I was afterwards astonished to find potatoes, quite fit for the table, at the stalks manured with guano, while those not so treated, were scarcely formed,