

above the adjoining one, so that the contents of the first may be easily emptied into the second, and so on.

We are now in possession of one of the necessary elements in the manufacturing of my manure; and I will suppose that we have either liquid manure or corrupted water, prepared as above stated, in sufficient quantity.

Suppose, then, that we wish to make about two tons of manure: for that purpose I begin by taking 200 gallons of liquid manure, or of corrupted water; and to this I add—

200	lb. of human excrement, or urine.
50	— chimney-soot.
400	— dry lime.
60	— limestone.
20	— wood-ashes.
2	— sea-salt.
1	— salpêtre. (In all, 783 lb.)

To this mixture add 50 lb. of the ferment kept from the preceding operation: but, in case this is the first time that you have thus prepared manure, you must increase by one-fourth the quantity of each of the solid substances mentioned above, making the entire mass 916 lb. If the soil be light and sandy, I have often found it expedient to add some clay, in order to give greater consistency to the liquid mixture, and more firmness to the manure.

I will tell you how to do, if you cannot procure some of the matters I have mentioned. Instead of 200 lb. of human excrements, you may put 40 lb. of fermented barley or buckwheat, or 100 lb. of sheep-droppings, or 200 lb. of pig or cow dung: 100 lb. of burnt soil will replace the 50 lb. of soot, and 2 lb. of potash will do instead of the 20 lb. of wood-ashes. It is better to put rather more than less of these different elements; and I need scarcely say that it is well to add to the mixture the poultry-yard manure, pigeons' dung, rape-seed cake, and such other beneficial substances as can be procured with ease, and without great expense.

The place in which to mix these ingredients must be chosen near the tanks, and it should be paved, in order to lose as little as possible of the liquid; and it is important that it should be on such a slope, as that the liquid running from the watered manure may fall into a cask or tub placed at the lowest part of the slope. Part of this liquid may be kept, to be used as a ferment in the ensuing year. I must not forget to mention that the liquid manure should be often thoroughly mixed by means of a curved spade. Monsieur Jauffret, a French agriculturist of note, from whom I have borrowed part of this process, used to build up his manure on a wood grating, through which the liquid escapes more easily, and the action of the air is increased. The same result will be obtained by employing small bundles of branches and wood, upon which the manure may be constructed. To make the ma-

nure, all kinds of young shrubs, leaves, reeds, &c., can be used, together with straw. A bed of common grass will be often required to increase the fermentation. If you have sufficient time, I advise you to cut the straw; and as for the ligneous matters, such as whins, small roots, &c., their length must not exceed 8 or 9 inches.

Everything being ready, you may build your manure-heap about 21 feet long, 8 in breadth, and 7 in height. This is merely an average size, and it is quite evident that it will be of no consequence if the heap should be a little larger or smaller. Next put a bed of straw, reeds, &c.—over the branches, &c., which are laid upon the ground—about one foot thick; then water it thoroughly with the liquid: if possible, it is better to soak the dry elements of the compost in the tanks, and, as you take them out, build them upon the heap. Then lay a second bed, another foot thick, and water it as before, and so on, until the heap has attained a sufficient height, when you may have it well trampled down. Each bed having been separately trampled, then spread on the top the mud that is found at the bottom of the tank, after which you cover the whole with a bed of soil or chaff a few inches thick.

On the fifth day after these operations have been completed, the manure will be pretty well drained, and you may then turn it over, so that the top of the old heap be the bottom as the new. This being done, you have the heap watered as thoroughly as possible, and then immediately covered, as before, with a bed of soil or chaff.

On the seventh or eighth day the compost will begin to smoke, especially in the morning, and a strong smell of manure will be felt. You then bore holes in it with an iron auger an inch and a half in diameter, and about 5 feet and a half in length—the holes must be 3 feet deep, and 6 or 7 inches distant from each other—and you then water the heap with liquid manure through these holes, and immediately afterwards close them, merely by the pressing of the foot, when you lay a new bed of soil or chaff over the whole compost.

On the ninth or tenth day you bore new holes, deeper than the first, and, as much as possible, in different places; you then water the heap by these new holes, and have them closed in the same way, and lay a new bed on the top formerly. It is to be remarked, that all these new beds are themselves soon converted into manure by the watering, and the fermentation of the compost. If the compost is merely made of straw, you had better stop the fermentation at 134 degs., and that, by means of an abundant watering; but if there be any woody matter amongst it, let the fermentation go on to 153 degs. In this manner the compost is prepared, and ready to be used at the end of a fortnight in summer, and of three weeks in winter. Although, by