

with a thick layer of earth or muck, and as the pile is raised, pour on stale urine or dung heap liquor enough to moisten the whole mass thoroughly, and finally cover a foot thick with soil or muck.

In warm weather the decomposition goes on at once, and in from two to six or more weeks the bones will have entirely or nearly disappeared.

If the fermentation should spend itself without reducing the bones sufficiently, the heap may be overhauled and built up again, moistening with liquid manure and covering as before.

By thrusting a pole or bar into the heap, the progress of decomposition may be traced from the heat and odor evolved.

Should the heap become heated to the surface, so that ammonia escapes, as may be judged by the smell, it may be covered still more thickly with earth or muck.

The larger the heap the finer the bones, and the more stale urine or dung-liquor they have been made to absorb, the more rapid and complete will be the disintegration.

In these heaps horse dung or other manure may replace the ashes, etc., but earth or muck should be used to cover the heap.

This bone compost contains the phosphates of lime in a finely divided state, and the nitrogen of the cartilage, which has mostly passed into ammonia or nitrates, is retained perfectly by the absorbing earth or muck.

When carefully prepared this manure is adapted to be delivered from a drill-machine with seeds, and, according to English farmers, fully replaces in nearly every case the superphosphate made by help of oil-of-vitriol.

Horticultural.

TROUBLES IN THE FRUIT GARDEN.

NO. 1.

DEAR SIR,—In conversing with you lately upon the subject of fruit-growing, I received the impression that you were rather disposed to despond respecting our great success. I cannot share this feeling with you. Admitting that very great discouragements meet the Horticulturist in his delightful line, it is to admit no more than what is true respecting every human employment. You say it is thought that these discouragements are heavier now than they have been at any former period. This may or may not be the case. It may be that the multiplied facilities of learning the failures experienced which we have now, to what

formerly existed, may have much to do with this opinion. Or perhaps fruit trees are subject to epidemics at different periods as well as the race of animals or that of man, and however threatening they may at present be, (and threatening they truly are) they will pass away and leave us a long period of successful and therefore delightful culture, ere they return. It must further be remembered that marked failures in fruit growing arise from want of knowledge respecting the proper methods, from carelessness and inattention and choice of unsuitable sites for the fruit garden and the orchard. You are fully aware that persons oftentimes commence planting without due consideration of the nature and qualities of the soil. This was so in my own case. In my first attempt to grow fruit I went at it full of hope and energy and determination to succeed, without considering the adaptability of the soil to the sorts of fruit I wished to produce, and of course without knowing that this was a very important and even essential consideration. A part of my grounds was light and sandy and flat, a part rather heavy. The subsoil of the former was of the same nature to the depth of four feet; of the latter at the depth of twenty inches a rich clay marl. Upon the former I tried to raise Gooseberries and Dwarf Pears, and failed. Upon the latter I succeeded. Even grapes were subject to mildew upon the light soil, not excepting the Clinton and the Isabella. Had I known at the commencement of my efforts what I know now, I should have carted the marl on to the sand, and so have made a most excellent soil. I did this afterward to some extent, and was much pleased with the result. Suppose, however, I had attributed my former failures to the difficulty of growing fruit; suppose I had hastily concluded that there was no escaping the blight upon the pear, and the mildew upon the gooseberry and the grape, it would have been wrong. Yet many do this. Many stimulated by books upon the subject, enter fiercely upon the work of planting, and are disappointed; perhaps even resolve to have nothing more to do with it as a very impracticable undertaking. But this is all a mistake. My own experience convinces me that with proper knowledge, and suitable care and diligence, success in fruit-growing is about as sure as in any undertaking under the sun. Then as to the fact of persons failing who have some knowledge, and are very careful and diligent, it will be found, I think, that they have overlooked some point of importance in their case, some speciality in their