the last person to say that coprolities should not be employed. Nature had evidently intended them for use. What he objected to was making a manure from coprolites and calling it dissolved bones. The correct way was to tell exactly what the manure was composed of. A man could go into the market and buy bones at £6 a ton, and coprolities at £2, and it was not right to sell the cheap article for the dear one. The farmer, in his opinion, was not altogether free from blame in this matter. If he went into the market and asked for manures at a lower rate than could be made, he must make up his mind to receive coprolities. The cheap manure was made up of coprolites. This was particularly the case in London, where manures were advertised so cheaply, but the reason of this was that London manures were just coprolites. The whole thing lay in a nut-shell. If they wanted manures from bones alone, they must pay for them, and if they wished a cheap manure they must take coprolites. The question then came to be from which can you get the best result? Now, this was a question which only practical experience could solve. In some soils coprolities would produce as good an effect as bones, but this could only be solved by the actual experience of the farmer. In conclusion, he would strongly impress on them the value of experiments, especially when they had arranged to hold meetings for the discussion of agricultural subjects. These, when carefully made, were of the utmost importance to the art of agriculture—an art which had now almost become one of the learned professions.

PREPARATION OF BONES.

Your letter in relation to the preparation of bones for plants, and their value for grape, is at hand. My other duties at present forbid my doing justice to this subject; but hoping to be able to touch it again, I will, in all brevity, notice the points referred to.

First, then, as to preparing bones for plants, The process is partly *mechanical and partly chemical.* The bones must be first reduced to a greater or less degree of fineness, by mechanical means, and then be operated upon by chemical agents to render them soluble.

The work of reducing bones to anything like powder, is fraught with almost insuperable difficulties. No practicable method of doing it has yet been devised, and yet the success of the subsequent chemical process, is often dependent upon a degree of fineness being attained that has not been reached in any rawbone superphosphate that I have seen. To reduce raw bones by hand without the aid of machinery, is a most laborious and unremunerating operation.

Burned bones are very easily reduced to an impalpable powder, but after reduction, could be farther reduced by fermentation, as raw bones may, and by burning they loose about four per cent of nitrogen, which is very desirable to preserve.

Raw bones are very easily burned by piling them up with wood, and setting fire to the latter; a good wheelbarrow load of wood will burn a ton of raw bones, and leave a mixed white and coally mass, which is very easily broken up with a mallet, flail, or other implement to beat them with.

The chemical part of the process is as various as are the means that may be employed to perform the mechanical part.

Bones may be fermented in a great variety of ways. They may be kept moist and warm till they are broken up, under the decomposing action of the organic matter in them. Or they may be mixed with decomposing putrescent matter, by constant contact with which they are gradually decomposed. In this way whole bones may, in the course of a few months, be reduced, and thus the labour of breaking them up, by mechanical means, be avoided; if, however, they are first somewhat broken up it would be better, as the fermenting action is thereby rendered more intense. The bones either whole or after being broken into large pieces, may be thrown into a box, barrel, or hogshead, and let down into the ground in a moist place, where the draining of the cow-yard, the urine from a privy, the soap-suds from a wash-tub, the slops of dish-water, or any water containing organic matter, liable to become putrescent, may keep them constantly moist. They should not be allowed to become dry, nor should be constantly covered with water, nor should the water pass through them and run away by soaking into the earth. In filling the vessels with bones, dead animals, spoiled meat, hair, wool, hoofs, horns, or any other similar matter may be thrown in with them. The whole should be pounded down to a compact mass. It is by no means necessary that the vessel containing the bones be sunk in the earth; if kept on its surface, and the proper condition of moisture observed, the decomposition will go on, but when such these conditions are more easily kept up.

Another indispensable condition is a proper temperature; that of a comfortably heated room in winter, or of the ordinary temperature in summer, is what is required. The only advantage of using warm liquids to wet the bones, is the temperature thereby attained. It is best to carry out such experiments in summer time, when the solar heat is sufficient to secure the decomposition. It is further, not even necessary that the bones be put in a vessel at all; a hole or sink may be made in the ground and the bones thrown in and treated as above; such a hole should not be of the nature of a *groove*, narrow and deep, but a hole