rected by mixture with ashes, and in this manure, it forms a most powerful and excellent top-dressing for grass lands. In Essex, in England, it is used mixed with five times the quantity of fresh earth. It causes a most rapid growth, particularly of the straw of wheat. It does not last long; the soil generally losing its virtues the following year. In London it sells for 15s. a load, of 90 bushels.

ASHES.

Coal ashes and cinders by themselves are of little service, but mixed with night soil and animal and vegetable matters, they make a good munure for turnips, and in cold poor clay soils they fertilize it, and bring good crops of wheat, barley, oats, and grass. Soot has been employed as a top dressing for grass, particularly the rye-grass, on light, gravelly, or lime-stone soils. The strength of the soot will depend upon the quality of the fuel from which it is formed. It has been sown with wheat and oats, to prevent the destruction caused by the "wire-worm." It is not durable in its effects, which only continue for the one season.

BONE DUST.

All kinds of animal and vegetable matters can be used as manures; some, however, are preferable to others; but it is the duty of the farmer to employ all that are within his reach, and he may then select and appropriate particular manures for particular purposes. Bone dust has now become a very important manure: it owes its virtues to the earthy salts, which form principal ingredients in it.

Bones ontain about 33 per cent. of animal matter, and 67 of earthy substance. The animal matter consists principally of gelatine and marrow, or fatty matter. The earthy substance consists of Phosphate of Lime, 51 parts; Carbonate of Lime, 11 parts.

These constitute most important ingredients in an agricultural point of view; they contain, however, a small proportion of Phosphate of Magnesia, and the Fluoride of Calcium, with some fractionals of Soda, Silica, Alumina and Oxides of Iron and Manganese, in the 100 parts. Bone dust answers best in light soils, and in dry seasons. It is found particularly good as a manure for turnips and for fertilizing waste lands! 100 bushels of it are found equal to 40 cart loads of farm yard manure. Its effects upon the soil are durable: it is asserted that they continue even longer than a whole rotation of crops. It is excellent on pastoral farms. In Scotland and England it is greatly appreciated, and some extraordinary instances of its productiveness are recorded. The following is given as the ordinary rule for its application:

1. On dry lands, lime stone, chalk, light loams, and peats bone, are a highly valuable manure.

2. That they may be applied to grass with great good effect.

3. That on arable lands they may be laid on fallow for turnips, or used for any other subsequent crops.

4. That the best mode of using them when broad cast, is previously to mix them up in compost with earth, and let them lie and ferment.

5. That if used alone, they may be either drilled with the seed, or sown broad cast.

6. That bones which have undergone the process of fermentation, are decidedly superior in their immediate effects to those which have not been fermented.

7. That the quantity should be about 20 bushels of dust, or 10 of