

58. The rapidity of fermentation is regulated by the admission of air to the heap of manure. If it be desired to make farm-yard manure ferment more quickly, it is turned over so as to lie lightly; but if fermentation has to be checked, it is trodden down into a compact mass. The greater the rapidity of the fermentation may be, the greater is the danger of its throwing off its ammonia into the air, and this renders it the more necessary in such cases to keep it moderately moistened, so that, although it may be a quick fermentation, it may still be kept of a right and proper character. A properly controlled fermentation will preserve the ammonia; but if it be neglected, the most valuable constituent of the manure will be thrown into the air.

CHAPTER V.

ARTIFICIAL MANURES.

59. The term **artificial manure** is one of recent adoption and is confined almost entirely to fertilizers which have been brought into use within the last forty years. Some of these are natural products, as guano and nitrate of soda; others are manufactured, as superphosphate of lime and sulphate of ammonia. This term is not applied to such manures as lime, chalk, marl, and others of ancient use: these may be conveniently termed **natural manures**. Thus beside the farm manures we shall have two classes, viz., the **artificial** and the **natural manures**.

60. The first step towards the introduction of artificial manures was the use of **bones**. These were broken so as to pass through a sieve having a mesh of half an inch. They were and still are known as "half-inch bone." The use of these bones upon dairy pastures had a surprising effect, and they