I will confine myself to the consideration of the manure of the farm-yard, its economy and application (hear, itear). The question then, gentlemen, which the Committee of the Farmers' Club have adopted for in fourteen days a cow, consuming 1426 lbs. of grass, discussion this evening is one which they have justly considered to be of the highest practical importance, a conclusion in which I beg most warmly to concur, because it must be quite evident to every one connected with the cultivation of the soil, that upon the proper manufacture and the economical application of the 10 days with 90 lbs. of barley, 27 lbs. of molasses, and manure of the farm yard rests the success of all great 274 lbs. of hay: the dung she now produced weighed agricultural efforts. It is with much pleasure, there-fore, that I take upon me the task of opening such a days with 80 lbs. of barley, 40 lbs. of linsced, and fore, that I take upon me the task of opening such a discussion; and I do this not with the feeling that I can propound any new discoveries of startling importance, but with the anxious diffidence which must be excrement voided by a cow. Other persons have, in felt by every one who addresses, on any agricultural subject, the great and accomplished farmers who grace produced from a given weight of food and fodder taken the list of this influential and highly important club together, and the results of one of these series of expe-(hear). My attention this evening shall be directed riments have been given by Professor Johnston. in his to a few chemical results which have been recently valuable work, "The Elements of Agricultural Cheobtained, relating to the subject, and to the illustra- mistry," p. 140. From these it appears that one ton tion they afford of the farmer's practical operations. The subject of this evening's discussion having been divided into two sections, the "manufacture" of the manure of the farm-yard first demands our attention. We shall, in furtherance of our object, simplify our investigation, if we divide this examination into two sections-First, the vegetable portion of the manure, and secondly, that which is composed of the ex-crements of animals. Now, as regards the vegetable portions, it is evident to every one that it is the straw of various grain that forms the largest loss of weight is caused partly by the evolution of a portion of these-substances of little value as fertilisers, until mixed with the excrements of animals. It partly by the aqueous matter drained from the heap, has been found, however, that the same quantity of or emitted in the shape of steam, a loss which can the straw of different cereal grasses, consumed as food casily be diminished in amount, although not preventby live stock, produces very different weights of manure. ed even then in a considerable degree, by employing This is of the highest importance to know. It has the manure of the farm yard in as recent a state as been a common phrase that "straw; is straw," and possible. The condition in which manure ought to be many do not know that if a given weight of rye straw, or hay, or corn is used, there is a material difference decomposition, is a point of the very highest imporin the weight of manure produced, as has been determined experimentally by Mr. Block. He ascertained and upon which the more knowledge there is brought that 100 lbs., of chopped rye straw, given as food to horses, will yield about 42 lbs. of dried excrements (fluid and solid), 100 lbs. of hay will yield about 45 lbs., 100 lbs., seeds of oats 51 lbs., 100 lbs. seeds of rye 53 lbs. The proportion of excrements produced great many of the farmers in my neighbourhood, in the by various animals naturally varies with the size of the county of Essex, believe that the farm yard cannot be by various animals naturally varies with the size of the county of Essex, believe that the tarm yard cannot be animals, and the food on which they are fed; but it has been calculated from results of various experiments that an ordinary breed cow, fed in the usual way, pro-duces about nine tons of solid dung in the course of the tarm yard to dry; and that was the opinion of a great farmer in Dengy Hundred, a tenant of the celebrated duces about nine tons of solid dung in the course of the farm yard to dry; and that was the opinion of a great farmer in Dengy Hundred, a tenant of the celebrated that an ordinary breed cow, fed in the usual way, pro-duces about nine tons of solid dung in the course of the farm yard with a roof. He, therefore, was clearly one year. Upon this part of the subject you will find of opinion that to have manure in as dry a state as much valuable information in a blue book recently possible was most productive, and that it insured a printed by the Government, the real object of which however, are of a very different opinion (hear, hear). the ostensible one of affording information to the far-mer. Throwing, however, to the winds the real object the most desirable state of dryness or of moisture in

as having any relation to the Malt Tax (hear, hear). produced exactly 1000 lbs. of dung-Parl. Paper, p. 45.) But when the same cow was fed for sixteen days on 3 lbs. of barley. 168 lbs. of malt, and 4721 lbs. of hay she produced 1259 lbs. of dung.-(Ibid., p. 47) Again the food of this cow was varied; she was fed during 2491 lbs. of hay; she now produced 785 lbs. of dung. -(Ibid., p. 49.) This gives the proportion of solid various experiments, investigated the amount of dung together, and the results of one of these series of expeof dry food and straw gives a quantity of farm yard dung, which weighs,

When recent, from46	to	50	cwt.
After six weeks40	to	44	٤٤.
After eight weeks	to	40	"
Half rotten	to	35	"
When pretty rotten	to	25	"

So that we see from these experiments that when only half rotten, farm-yard dung does dot weigh more than one half of what it does when in the recent state. This quantity of the gaseous matters of putrefaction, and applied to the land, in what state of putrefaction or tance, one well worthy of investigation by this society the ostensible one of affording information to the far-mer. Throwing, however, to the winds the real object for which the volume has been published, and the ar-suments it is intended to support, to which a com-plete answer might readily be found; throwing to the winds, I say, that object, there yet remains in the deal of instruction, highly valuable to the accomplished agriculturists of England. I therefore recommend those who are managers of Farmer's Clubs to apply to the proper office, and they will doubtlessly be furnished with a copy for the use of their institutions; a book so full of valuable information, relative to the respec-tive qualities of excements, that it will well repay a perusal—I mean in a scientific point of view, and not perusal-I mean in a scientific point of view, and not considerably richer in ammonia when previously mixed