

begin making it in March, and were to keep it until the following Michaelmas, it would not be in a dry state. The plan which Mr. Warnes recommends is to make it under cover, not to carry it after made. I find that the manure as I make it, answers on my clay soil much before any other. A friend of mine, in driving from one part of Sussex to another, passed my farm, and a farm about ten miles beyond it, belonging to Sir Charles Burrell; and he told me that the piece of wheat he saw on my farm, and the piece he saw on Sir Charles's, were the two best pieces he saw in a drive of thirty miles. Now, it was a singular fact, but these two pieces were both manured on the system recommended by Mr. Warnes. I think it rather goes to show that for that description of soil (a clay soil) manure made in that way is more powerful and better adapted than any other. I observed, in cleaning out, that there was no smell whatever; and manure made in that way remained without heating, while that made in boxes would heat immediately. I beg to say that I am no chemist; and that my observations relate simply to matters of fact; and from what experience I have had, I should recommend every gentleman to try the system which I have adopted myself. I know gentlemen may think it impossible an animal could thrive, living for so many months in the midst of his own excrement; but there is no offensive smell. In this respect my boxes are altogether different from the stalls which are cleared out once or twice a-day. Why, in the "bullock palaces" of the Duke of Bedford, at Woburn, I was quite surprised at the smell; the quantity of ammonia that was escaping was extraordinary. In fact, people are great losers by continually poking the manure about. I cannot go into any statement as to weight of food, weight of straw, &c.; but it has always been my impression that the higher the animals were fed, the more strong and valuable was the manure. My practice is to mix it with mould, and plough it in. There is another point of view in which these boxes may be regarded favorably: there is an astonishing advantage in putting the animals separately, each in a box by himself. In this case, a bullock may be considered his own master, and does not, under any circumstances, come off second best. The advantages of feeding, on this plan, are very great. If, for instance, there is an animal in a yard with several others, which refuses his food, and the others partake of it, the consequence is that they won't take their next meal; but you won't find it out. There is also another great advantage in this system: you can have cattle of different ages, and can put them in at all times of the year. The manure will keep in the state which I have described from its being well trodden down, and you will save all the expense of stirring about; you only have to remove it once, which is a matter of great importance.

Mr. E. Aitchison:—I would suggest a plan, with regard to manure, which I have carried out myself. I take all the drains from the different yards to one given spot. Then I collect all sorts of refuse, couch, &c., and with a little mould dam it all up together. That I call the yard for grass lands alone; rubbish of every kind is carried there; refuse of every kind is manure for grass lands. I think it wrong to carry out anything of this kind upon land intended for the production of corn; because the seeds of weeds may germinate. I therefore suggested the remedy of making one hole for the manure for grass lands, and another for the manure of arable lands; saving the whole of the manure from cattle eating hay, straw, and turnips, as well as all the straw, for the arable land. By using these manures I have carried very large crops: my practice has not exceeded two years' duration. I would suggest, with respect to the period for manuring grass lands, that there is no time equal to the month of June, when the manure can be well worked into the roots of the grass. I have applied twenty-five loads per acre of the manure out of the refuse hole, and found that it did much more good than if the manure had been carted away upon the land from time to time. The plan I have recommended is also one way of obviating expense when the landlord will not go to the cost of making us tanks. I have had some experience with regard to liquid manure, and I must confess that I do think much good is derived from carrying it out, especially in clay soils. I have given the lands a coat of liquid manure in November, and another in the spring; but the following year the crops from manure carried out about the end of June, or beginning of July, have been double that from the second coat of liquid manure.

Mr. Hobbs:—I do not quite agree with some of the remarks which have fallen from our friends this evening, with regard to the state of dryness of manure, and also with regard to the subject of tanks. I have had considerable experience in the drainage of manure, and also in catching that drainage in tanks, and applying it to the land—more especially to grass lands. Some years ago I went to considerable expense in erecting pumps and building tanks for the purpose of applying it to the lands. First of all I trenched all my buildings. Still there are parts of the year, after wet weather and rapid falls of snow, when the yards will have a superfluity of liquid in them, which require to be taken care of and afterwards applied to the soil. I do consider that when the drainage of the farm yard has not been found advantageous, it has arisen from our want of knowing the proper application of it. I certainly did at first, particularly in the case of grass land, find it of little or no use; but I find now, by mixing it with earth, that is the most advantageous. Most of us, at present, are entirely in the dark with respect

to the application of liquid manures. I believe that if we were to mix sulphuric acid or other chemical substances with it, we should find it far more beneficial than we now do. But we must look to our friend Mr. Cuthbert Johnson to enlighten us upon that point. I cannot agree with Mr. Aitchison that we ought to allow the liquid of the farm yard to run off, and be absorbed in a collection of vegetable matter, and so on. I think that we ought not, in the first place, to allow rain water to be mixed with it, but that we ought to catch it in the strongest state we possibly can. I hope the landlords will meet the tenants by building troughs and making tanks. I beg also to say that I do not agree with the observations made by some gentlemen with regard to the propriety of keeping manure in a moist state. I think that Mr. Wood is pretty right as to manure being made in boxes. It is much better made in sheds than in the open air. Most farmers are sufficiently acquainted with the matter to know when to apply the liquid manure or water, if they find it come into a too dry state from extraordinary fermentation or other cause. Any one who has ever travelled in the country within the last three weeks must agree with me in saying that there has been a ten times greater loss from the manure being washed and soaked, and having all the goodness running away, than there could have been from its being kept too dry; but if it is well trodden down by the cattle in the boxes it will never get into a dry state. I don't quite agree with Mr. Warnes's plan of feeding in boxes; a person who bred a large quantity of stock would have to lay out an immense sum of money to build these boxes; but it is a better way of keeping cattle than the manner in which they are generally kept. One thing appears to have been forgotten in this discussion, and that is the greatest possible economy in making manure. I agree with the old saying, that it is a bad piece of roasting beef, that won't find gravy to baste it; and depend upon it, it is a bad farm that won't supply sufficient manure with which to keep it in condition. A great loss is sustained by feeding animals on straw and a few turnips; where that is the case we need not be surprised that there is a deficiency of farm-yard manure. Our chairman has alluded to a top-dressing for grass; I agree with him that the autumn is the most proper time for dressing clovers and grass; and the difference which exists between Mr. Baker and Mr. Turner. I attribute to this fact, that the one lives in the east and the other in the west; the latter does not suffer from the frost; I have been in the habit of manuring pastures in the early part of the autumn with unfermented manure, and always found from eight to ten tons so applied much better than a larger quantity of rotten or fermented dung at any other time. Grass grows much more rapidly when the dung is applied in an unfermented state, or