

breeding from them. Accordingly he bought fire bellers of Collings' blood (the parent stock of Bates and Booth), and has since bred exclusively from them, and treated them as common cows up to the present day, from time to time purchasing first-class bulls to use with them, and then rearing their calves upon skimmed milk; and he believed that they gave as much milk and butter upon fair treatment as the common cow, but perhaps did not hold it quite so long when they got near calving time. As a set off against that, he sold his bull calves at 6 or 7 guineas, at 10 or 12 days old, and some at a higher figure, to farmers and others; and the result was that he, in conjunction with a few of his neighbours, who have partially adopted this practice, had been the means of improving the breed among the farmers; in fact, the whole of his neighborhood was tolerably well off for good bulls. His own opinion was that the short-horn was not only the best dairy cow, but also after she was dried and barren, the best grazing cow into the bargain, and that the better they are bred the better they feed; and we have Professor Voelcker's experiments in corroboration of the fact that pure-bred short-horns yielded as much milk and butter, within a fraction, as the common cow. In conclusion, he remarked that in advocating the claims of the pure-bred short-horn cow as a dairy cow, he did not intend it as an advertisement, to his herd of short-horns, because they were milkers as well as grazers, but for the simple fact that the Alderneys had been put forward as the best dairy cow; and also to disprove the allegation in the *Mark Lane Express*, a week or two back, that 'pedigree animals are just now getting into bad odour,' because some people will stuff, panper, and spoil valuable breeding animals for the purpose of exhibition."

This is just such language as we would expect Mr. Tynte, of Tynte Park, to use, were he called upon to speak of the best description of cows for dairy purposes; keeping, as he does, a large herd of high-bred cows solely for the dairy and finding it profitable to do so. In one point, however, we think Mr. Tynte would not agree with Mr. Middleton, namely, that short-horns, perhaps, do not hold their milk quite so long as "the common cows" when near calving time; for the Tynte Park short-horns are not only profitable milkers, but some of the highest bred of the cows, of Booth blood, scarcely ever become dry.

Referring to his system of keeping milch cows, Mr. Dumbrell asked the meeting to forgive him on this part of his subject, he should "mount a hobby." His system consists in tethering his cows during summer, instead of allowing them to range over the pasture. The cows are staked down at equal distances, each animal having a range of 16 feet. They are moved frequently, in 12 or fourteen times a day when the grass

is short, only a small portion being given at each time, not more than twelve or eighteen inches, the object being to prevent the cows from placing their feet at any time upon the grass they are about to eat, so as to avoid waste. The cows have water twice a day, and he finds that 8 or 10 statute acres of fair meadow land, pastured in this manner, are generally sufficient "for 25 cows from the time they leave the stall until after haymaking." During summer, when the flies are troublesome, they are tethered only at night, getting rye, vetches, and clover in their stalls under cover during the day. Towards the end of autumn, as the weather becomes cold and wet, the cows must be taken into the stables at night, "lying out in wet weather being detrimental in every way to dairy stock, but no weather," he says, and let our readers in the dairy district mark his words—"no weather is so injurious to the produce of milk, besides being likely to cause abortion or sinking, as white frosts, and the greatest care should be taken that cows in calf should not feed out at that time." Mr. Dumbrell spoke of the merits of the drumhead cabbage as food for milch cows during the early part of winter, being highly nutritious, and assisting the colour of the butter; he follows the use of it with that of swedes, then mangels, spring rape or late sown turnips with rye, bringing the cows on until the grass is ready for a renewal of the tethering system. Of that system he has had 18 years' experience, and although much ridiculed at first, is now adopted by many of his neighbours.—One of these, Mr. Wood, spoke highly in favour of Mr. Dumbrell's mode of tethering cows, stating although at one time he had a very poor opinion of it, experience had made him quite a convert. The other speakers, however, were not inclined to follow his example and become converts to the system, although some of them allowed that it might answer in the case of cows of the Channel Islands breed, which were brought up to it as calves.

Mr. Dumbrell did not found the use of artificial food, such as oil-cake, meal, grains, profitable, but others said they used it regularly, and found that they were paid by the use of it; Mr. Coleman even stating that very few who kept a dairy, "whether of short-horns, Herefords, Alderneys, or any other breed, could supply really good butter without a small portion of one of those articles, viz., cake or meal.

With regard to the indoor management of the dairy, Mr. Dumbrell recommended that a sustained temperature of 56 degrees should be kept up during winter, by means of hot-water pipes; that the milk pans should be of tin, oblong, with rounded corners; that "butter to be perfect should be churned every day," that the cream should not be in a state of decomposition before being churned; that scrupulous cleanliness be attended to in every part of the management;