

marks exceeded those of the 1st Jersey by 10 per cent., and beat the 2nd Jersey by 50 per cent. The two Shorthorns gave of pure butter fat at the rate of 16.17 lbs. and 17.50 lbs. a week; the two Jerseys gave 13.30 lb. and 11.55 lb.

Guernseys beat the Jerseys, the marks standing for 1st and 2nd prizes, thus:

Guernsey cows 1st prize... 101.8 Jersey cows 1st prize... 97.3  
 " 2nd " ... 89.0 " 2nd " ... 88.3

The marks of the Shorthorn heifers—91—85, were very little fewer than the marks of the Jersey cows—97.3, 88.3, while the early maturity of the Jersey heifers was well displayed, they having obtained 91 8, and 80 marks—almost as many as their older sisters! Only one Guernsey heifer was entered for trial, and she only obtained 69 marks.

*Cheese at Islington.* Here's a nice state of things! The Lord Mayor's prize for the best twenty cheeses went to Scotland! And why? "Because" says the *Agricultural Gazette*, "dairy instructors from CANADA have been at work in the neighbourhood of Stranraer, Wigtownshire, and we cannot doubt that the success of Mr. Drumflower, of that county, has been largely due to that fact." So, as I remarked last month, the dairyman really makes the cheese and not the pasture. What will Arobedeacon Denison say to this? Of course, the cheeses were *Cheddars*, though made 400 miles from that Somersetshire village.

*Wheat-prices.*—The inferiority of the quality of the new wheat-crop as compared with that of last year (1887) may be judged of from the fact that on the 13th of October, at Reading, England, the price of old wheat was 24 cents a bushel higher than that of new wheat: 42s a quarter new, 50s. a quarter, old wheat.

*Fertilisers.*—My correspondents, the Messrs. Downes, of Liverpool, send me word that the price of fertilisers is likely to be much higher this season than last. Superphosphate is already up a dollar a ton. This is owing to an important rise in freights and a serious increase in the cost of the raw material, equal to from 15 to 20 per cent. Canadian apatite on 80% base, being apparently worth nearly \$20 a gross ton in Liverpool. Nitrate of soda and sulphate of ammonia are both \$2.50 a ton dearer.

*Ploughs.*—A new plough has been brought out in England by the well-known firm of Ransome and Sims, of Ipswich, which seems likely to throw all other patterns into the shade. A most interesting series of experiments was tried with it in Gloucestershire last month, which were witnessed by nearly fifty of the landlords and tenant farmers of the country. A friend sends me the following description of the trials, which occupied about seven hours, in two fields, one of which was a clover-ley and the other a stubble. The ploughs were tested at various depths, but the bulk of the land was ploughed six inches deep by twelve wide, which was easy work for a pair of horses. As a great deal of the land in the district is ploughed in seven-foot ridges, the new plough was tested with one wheel instead of two, and was found admirably suited to that style of work. That there might be no mistake as to the draught of this new "Digger" as compared with the ordinary make, it was carefully tested with the dynamometer, and, for the purposes of comparison, one of Ransome's ordinary ploughs—the Newcastle prize plough, R. N. E.—was put to work. This latter implement, ploughing six inches deep and nine wide, registered a draught of five cwt., whilst the new digging plough, ploughing six inches deep and twelve inches wide, the share cutting the full width of the furrow, only re-

gistered a draught of four cwt. This test was most carefully carried out, and the records of the dynamometer were taken by independent farmers. The new plough was then shown as a paring or skim-plough, for which work it is most admirably suited, and could easily be worked with one horse.

The chief advantage of the new implement is, that instead of turning over a solid furrow it is broken and thoroughly pulverised by the particular shape of the breast and the tail piece attached to it. The latter catches the furrow as it is turning over and thoroughly breaks it up, so that the work resembles spade cultivation as near as it is possible. At least three-quarters less harrowing is necessary, and on a light alluvial soil the drill might follow the plough. It is also capable of burying any quantity of long manure or surface vegetation, the furrow being completely turned upside down, causing all air to be excluded, and thus preventing the growth of weeds, &c. No coulter is required, its work being done by the skim-share. This effects a great saving in blacksmith's work. The lightness of draught is mainly accounted for by the fact that the beam is nearly 18 inches shorter than in the ordinary plough, thus bring the horses nearer to their work and the wheels closer to the body. The land side of the plough is overcut, or, in other words, it cuts the land on the angle, instead of perpendicularly. This is an important feature. The breasts and wearing parts of the plough are all made of chilled metal, which is considerably harder than steel. On cutting land, this will effect an immense economy, as it is computed that one of these chilled breasts, though considerably cheaper, will wear as long as half-a-dozen made of steel.

The meeting seems to have been unanimously in favour of the new implement, as a great saver of time and labour, and no less than 140 ploughs of the above pattern were sold in the neighbourhood by one agent immediately after the trials.

*Singling root-crops.*—I have no doubt but that at the next meeting of the Dairymen's Association, which will take place at the Agricultural College at Assumption on the 9th and 10th of January, 1889, the process of singling root-crops will be thoroughly investigated. I allow four women a day for the singling of an acre of roots at 10 to 12 inches apart, but I see by the Report of the Farming of East Lothian, in the 2nd part of the 14th volume of the Journal of Royal Agricultural Society of England, that in the county referred to, "The swede variety is usually ready for singling in about six weeks after sowing. They are either singled by hand or more generally, by the hoe—3 persons overtaking an acre"—nearly one-sixth more than an arpent—"in the day, in ordinarily favourable circumstances."

*Sheep on turnips.*—They do not grow finer crops of roots in New Zealand than we can here, neither are wages lower there than those we are accustomed to pay. Of course, their winter is a very different sort of thing to ours, as the ground is never so hard too allow the fold-stakes to be driven in to it. But, I must say I should like to see a partial following out of one part of their practice in this country; as for instance:

"Large numbers of sheep are being shipped to England by the farmers of the North Island. The writer has about 14,000 on turnips, and a neighbour has 36,000, of which 15,000 are fat wethers, also on turnips—a nice little fold, truly!" In consequence, the writer has been able to sell three of his farms for \$50, \$75, and \$80 an acre, whereas, for the previous seven years, he had not been able to dispose of any land at all. In this country of ours, rape I have always held to be preferable to turnips for folding sheep, as it stands frost far better, and an acre of it will go as far as  $\frac{2}{3}$  of an acre of turnips, and not cost above half as much to grow. Make mutton, somehow or other, we must, unless we want to