

there is not enough butter fat in it to make the necessary difference in specific gravity between cream and skim-milk to raise the cream in less than 36 hours.

Unless a cow tests 4 per cent. or more, she must give a large quantity of milk or she will be profitless. But simply because a cow gives but a low fat test, do not condemn her until you know what quantity of milk she yields. Suppose that Peggy's yield is 12 qts. and tests 3 per cent. and Mollie gives 6 qts. of 4½ per cent. milk. The first will make over ¾ of a pound of butter, or say 1½ pounds per day, if the milkings are alike, while Mollie's milk would give but a trifle over 1 pound. In this case the cow making the poorer test is the better cow. If Peggy gave 3 per cent. milk for 10 or 11 months, amounting to, say 6000 lb., and Mollie 4½ per cent. milk through 8 or 9 months only, and but 3000 pounds, the former would make 180 pounds fat and the latter only 135 pounds.

The writer has formed that the average fat content of the milk throughout the State is much nearer 2 per cent. than 4 per cent. From this it can be seen that farmers are feeding a large number of cows that are far from paying their board. No farmer can afford to keep a cow that will not return to him at least 150 pounds of fat per year. Test your cows and find out which are running you in debt, which are only paying their expenses, and which are paying you a profit. Dispose of the first two mentioned, as both are a detriment to your work.

MILK AND BUTTER RESULTS AT THE LONDON DAIRY SHOW.

It seems desirable to call attention to some remarkable results of the latest milking trials and butter tests. In the last number of the Journal of the British Dairy Farmers' Association, Mr. Ernest Mathews gave a list of the highest number of points obtained by each breed of cows competing in the milking trials from 1888 to 1895 inclusive. Among these the highest was 171.9 points, awarded to a cross-bred in 1893. Nothing near this appears in the record for the six other trials; but it is followed by 140.8 for a cross-bred in 1892, 140.12 for a Shorthorn in 1894, 139.8 for a cross-bred in 1895, and 139.4 for a Shorthorn in 1888. The fifth place was taken by Mr. Merry's champion cow Daisy Belle, at the recent show, with 137.04 points. In the eight trials ending with those of 1896, the highest number of points has been gained four times by a Shorthorn, three times by a cross-bred, and once by a Jersey. The highest score for each breed during the eight years is compared below with the score of 1896:—

Breed.	Highest number of points for each breed in eight trials.	Number in 1896.
Shorthorn.....	140.12 in 1894.....	137.04
Jersey.....	117.20 " 1889.....	113.40
Guernsey.....	125.80 " 1892.....	93.07
Ayrshire.....	121.40 " 1894.....	120.56
Kerry or Dexter...	90.42 " 1896.....	90.42
Red Poll.....	116.40 " 1893.....	104.01
Cross-bred.....	171.90 " 1893.....	76.62

It will be seen that the breed record for the eight years has been beaten only in the Kerry and Dexter class, which has competed in only four trials during the period. But the latest trial was remarkable for the richness of

some of the cow's milk, and notably that of the prize-winning Shorthorns and one Dexter cow. The only very high record in yield of milk among the prize-winners was 71.3 lb., given by Mr. Merry's Magpie, a Dutch cow; but her milk was so poor (containing only 2.9 per cent. of fat) that she lost ten of the 140.1 points she would have obtained without the deduction made when milk has under 3 per cent. of fat, and was awarded 130.1 points, or 0.52 less than Mr. Geo. Long's Nancy, first in the mixed class. This cow forty-six days after calving, gave an average of 63.9 lb. of milk per day, containing 3.6 lb. of fat and 9.1 per cent. of the other solids, and obtained the second greatest numbers of points in the trial. Mr. Merry's champion Shorthorn gave 56.2 lb. of milk, twenty-two days after calving, or 7 lb. 7 oz. less than Mr. Long's cross-bred, but the percentage of fat in the former cow's milk was 5.2, which is exceptionally high for a

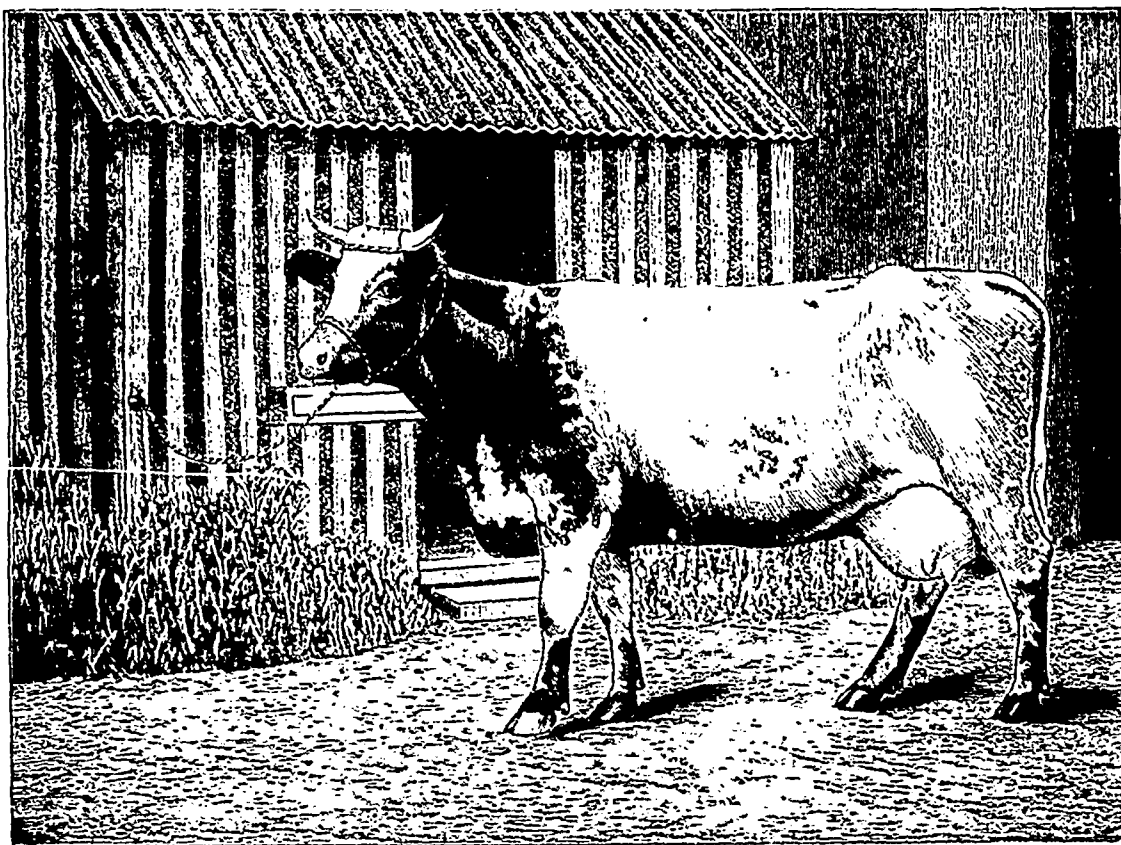
percentage of 6.4 of fat. It is a pity that she was not entered for the butter test.

We must turn to the butter tests to bring out clearly the most extraordinary results. In the Shorthorn test Daisy Belle was beaten by Mr. Shepherd's Dairy Model, which, after being fifty-two days in milk, gave 46 lb. 14½ oz. in a day, yielding the great weight of 3 lb. 2 oz. of butter. This result has been beaten at the Dairy Show only once, in the case of Mr. Brutton's first-prize Baron's Progress, in 1879, which gave 37.6 lb. of milk after being 113 days in milk, and 3 lb. 5 oz. of butter. Dairy Model's butter ratio was 15.01, and that of Baron's Progress was 11.3. The yield of butter was at the rate of 21 lb. 14 oz. per week in the case of Dairy Model, and at the rate of 23 lb. 3 oz. in that of Baron's Progress. But Daisy Belle also did remarkably well in the butter test, giving 3 lb. 1 oz. of butter in the day from 55 lb. 12½ oz. of milk, or at the rate of 21 lb. 7 oz.

cows had been only thirty and thirty-four days in milk respectively, and Regina Sultana 2nd would have been placed first if points had been allowed for time since calving in the butter test, as in the milking trials. Four other Jerseys gave 2 lb. 1¼ oz. to 2 lb. 6¼ oz. of butter per day. In the mixed breed test the only two good results were those of Mr. Holm's Ayrshire and Mr. George Long's cross-bred, the former having yielded 2 lb. 8 oz. of butter from 47 lb. 12½ oz. of milk, and the latter 2 lb. 5½ oz. from 61 lb. "But in the butter tests, as in the milking trials, the Shorthorns have borne away the palm this year."

THE LONDON DAIRY SHOW 1896

Well! If people will cast their eyes over the subjoined tests of all sorts of dairy cattle, even the most prejudiced of them must confess that the Shorthorn Dairy-cow is not such an inferior animal



SHORTHORN COW, "DAIRY MODEL." (1)

The property of Mr. Robert Shepherd, Snipley Farm, Durham. Winner of First Prize in the Shorthorn Butter Test at the London Dairy Show.

cow of any large breed, and the other solids were 9.3 per cent. According to the table of details, Mr. Merry's third-prize Dorothy, a cross-bred in the mixed class, gave 47.1 lb. of even richer milk, as it is credited with 5.5 per cent. of fat and 9.6 of other solids, but the actual weights of fat and other solids came out lower than those of the Shorthorn. The second and third Shorthorns gave milk containing 4.1 and 4.5 per cent. of fat respectively, percentages higher than have been common among Shorthorns in previous years.

There is nothing remarkable in the richness of the milk of the Jersey prize-winners, as 4.5 to 5.5 per cent. of fat has often been beaten by the breed; but 46.7 lb. of milk yielded by Dr. Watney's Opale and 40.8 lb. of richer milk from Lord Rothschild's Beauty are creditable records. Two of the Dexters did remarkably well. Mr. Woodliss's Red Rose gave 36.8 lb. of milk of moderate quality, 145 days after calving; while Mr. Robertson's Bridget McCluskey, fifty days after calving, gave 31.7 lb. of milk containing the extraordinary

per week, and showing a butter ratio of 15.21. Two other Shorthorns gave 2 lb. 12 oz. of butter each, and the whole of the seventeen tested averaged 2 lb. 1 oz. of butter a result never approached before. In the Jersey butter test Dr. Watney's first-prize Opale came out well with 47 lb. 10½ oz. of milk and 2 lb. 10½ oz. of butter, or 1 lb. of butter, or 1 lb. of butter to 17.7 lb. of milk. Lord Rothschild's Beauty was a close second with 40 lb. 12 oz. of milk, 2 lb. 10 oz. of butter, and a butter ratio of 15.52. But the most remarkable results in the Jersey test were those given by Lord Rothschild's third-prize Regina Sultana 2nd, which, 103 days after calving, gave 30 lb. 8 oz. of milk, yielding 2 lb. 9¼ oz. of butter, or 1 lb. of butter to 11.83 lb. of milk. This ratio was not approached in any other case but that of a Red Poll, which gave only 9 lb. 6 oz. of milk and 12¼ oz. of butter, and is therefore not worth considering. The first and second-prize

as some breeders represent her to be. Cows like Mr. Shepherd's Dairy Model," with her 47 pounds of milk a day, yielding 3 lbs 2 oz., of butter, or at the rate of a pound of butter to 15 pounds of milk; or as Mr. Mary's "Daisy Belle" that gave 56 lbs of milk, from which 3 lbs 1 oz., of butter were made at the rate of 18.5 lbs of milk to 1 of butter, cannot but be profitable cows for the dairy; and when their milking days are over, it will not cost much to fit them for the butcher.

COLD STORAGE.

THE DOMINION GOVERNMENT'S PLAN FOR CREAMERIES.

Grant for cold storage—Creamery butter
Ice-house and Refrigerators—
Plans for constructions—Cooling—
Records of temperature—Bonuses.

Ottawa, Nov. 7.—The following outline of the scheme sanctioned by Mr. Fisher Minister of Agriculture, has been drawn

(1) The udder most incorrectly given. Ed.