

fed some dry feed and grain, they are apt to lose in flesh and shrink badly in milk, later.

But the next, from the same paper, is not so good :

"The men who advocate the general purpose cow for straight dairy work, have had no true dairy experience."

Mr. Jas. Long, is a well known Dairy-expert. He evidently does not agree with those who hold that the fat-percentage cannot be increased by high-feeding :

SWEDISH DAIRY FARMING.

Prof. James Long of England, writes to the *Dublin Farmer's Gazette* an interesting letter on the dairy methods practiced in Sweden, from which we take the following extracts :

"In the co-operative factories of Sweden, considerable attention is paid to the maintenance of quality and purity in the milk. Milk is chiefly bought upon the basis of its butter-making properties, the farmer being, therefore induced to make careful selection among his cattle and to feed highly with the object of increasing the fat percentage."

Here is another important series of experiments :

NUTRITIVE PROPERTIES OF SUGAR.

Sugar is a substance as necessary for life—that is, for alimentation—as bread and meat. Prejudice, up to the present, rules that sugar is only a condiment, like pepper, salt, spices, etc., useful as seasoning. Germany is experimenting in the employment of sugar in the feeding of her soldiers. She is also experimenting with the molasses (next to a waste product) from the beet sugar mills in the feeding of farm stock, for Germany turns out annually one-fifth of the world's sugar crop. Nor has the question been over looked in France, though not studied as it will be; for in the consumption of their sugar lies the escape of the French from the terrible bounty tax. M. Bernard, of Coupvray (Seine-et-Marne), buys poor, cheap wheat, grinds it, mixes it with bran and adds one-third part of beet sugar treacle or molasses; kneads the mass, and bakes it into a kind of ginger bread looking aliment. It stores well, escapes all attacks from insects and vermin, and can be readily transported any distance. Year after year he feeds his stock with his "cakes;" the daily ration is, for oxen and milch cows, 6½ to 11 pounds, 2½ to 4½ pounds for horses, 2 pounds for sheep, and half that quantity for lambs. It is a cheap diet and highly relished. In southern Russia farmers dissolve the molasses in lukewarm water, pour it over chopped hay, and give the mass to the cattle. It replaces in part oil cake and the stock are never attacked by any disease. M. Bernard finds the use of molasses corrects the debilitating effects of too aqueous food. Germany does not see her way in the matter so far, the expense of working up the molasses being too high. This difficulty has induced Dr. Rumin, of Bonn, to experiment upon twelve milch cows at Poppelsdorf for four months, ending April, 1896. Molasses were used with six substances as forage, in which peat or turf, reduced by patented machinery to an impalpable powder was included; then came palm oil seeds, palm oil cake, potato pulp from the facula mills, sliced mangels, and crushed barley. In addition to the molasses ration, all the animals received chopped hay and slice mangels. The dose of molasses was in the ratio of 18 pounds per ton of live weight. Excepting the potato pulp all the animals took fairly to the preparations. The action of the molasses with turf powder and palm seeds was not satisfactory (We should think not); except when fed with molasses and sliced mangels, all the cattle diminished a little in weight. *The barley compound induced a greater richness of milk.* No increase took place in the sugar of milk, nor was any taste of a disagreeable nature imparted to the milk or butter, neither did the mixture in any way affect cows in calf, or near calving, or after calving.