

As to the poverty of the mangel as a food, I should like any one who doubts it to try the following experiment: take two cows of equal milk producing powers; and feed one on one bushel of mangels, one bushel of grains, and as much oatstraw as she will eat; and the other on one bushel of swedes, and the grains and straw as before; the trial will soon show the difference between the feeding-value of the two species of roots. Not that I mean to cry down mangels: far from it. They will grow on land too heavy for swedes; they yield a heavier crop per acre; they will keep, with care, in good condition up to the end of June, and are then in the best possible state for consumption, having lost a great part of the water they originally contained.

Swedes, as well as mangels, have plenty of pectic acid, but I do not know that that substance has ever been proved to be a digester of other food. It very likely, though, does act in some such fashion.

I am glad to see that Mr. Stewart is sound on the *Escutcheon* question. He remarks, in answer to a question on the subject by a Massachusetts farmer: "As to the advantage of studying the 'marks' on heifer calves indicating large future butter or milk yield, there has been much learning and speculation expended upon the escutcheon, but, practically, it has never repaid the time spent upon it." I sup-

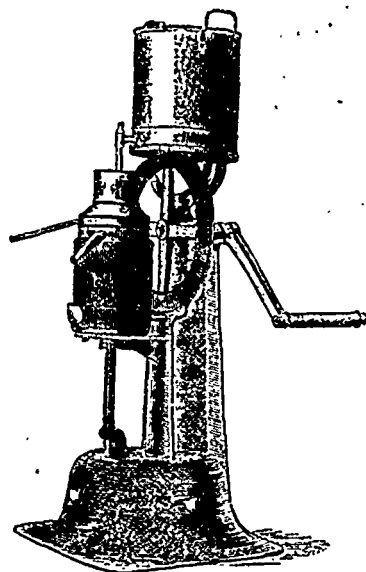


FIG. 1. CREAM SEPARATOR.

pose we may drop this point from our consideration altogether now, as it seems to have for some months fallen into utter disrepute. I must take credit to myself for having opposed from the very beginning three things that have turned out failures, but all of which for some time seemed likely to delude the public; 1., the wretched *Boomer's Coprogène*, or system of making manure out of leaves, stubble, and rotten water; 2., the establishment of extensive vineyards in the province of Quebec; and 3., the Guénou, or escutcheon theory of judging the qualities of a milk-cow by the position of certain hairs on her thighs and twist.

Contest of Dairy Cattle.

I have never yet felt satisfied that the principles which are laid down for the direction of the judges at our annual exhibitions are correct. There are dairy-cows and dairy-cows. All dairymen do not pursue the same object. Thus, one man sells milk; another makes butter; a third sends his milk to

the cheese factory; a fourth fats calves; a fifth rears all his young stock with a view to the butcher's stall; while a sixth makes butter, rears his young stock, and fattens a certain proportion of both young and old every year. The first, of course, desires that his cow shall yield a large quantity of milk, and up to a certain point is indifferent as to its quality; and so, perhaps, of the third. The other four desire not only a great quantity of milk, but that the quality should be good, too. I really do not see how our dairy-cattle contests should settle the question satisfactorily to all these different wants. The cow that in the height of her season gives only eighteen or twenty pounds of milk a day, rich abundantly in butter-fat though it be, would, unless he watered it, be a positive loss to the first of our friends, and not of much value to Nos. the 2^d, 4th, and 5th; while to Nos. two and six, she would be a most valuable acquisition. And, for the same reasons, it will not to do say, as some say, that the prize should go to the cow showing the widest difference between the value of her milk product and the cost of the food which produces it; for the milk-seller does not care two straws about the percentage of solids, or whether they consist of ash, casein, or butter-fat: all he wants is a lot of fair saleable milk. The man who fattens calves, or who rears his calves,

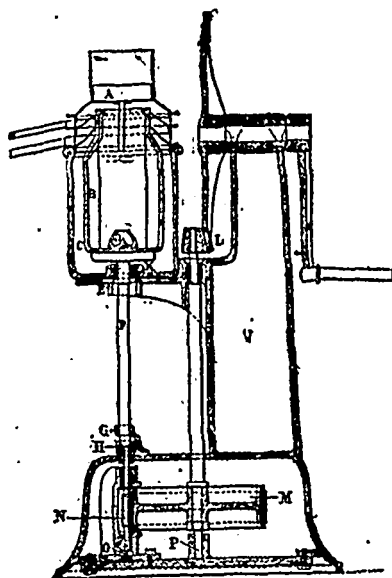


FIG. 2. CREAM SEPARATOR.

the calf sucking the dam in both cases, does better with moderately good milk than with the richest that ever flowed from the udder of a Guernsey or a Jersey.

Well, perhaps I have not fully developed my thoughts on this subject, but the conclusion I want to arrive at is this: there should be three classes of cows in a dairy competition: the milkman's cow, the butter dairyman's cow, and the general purpose cow. It seems to me an absurdity to show a Jersey against a Holstein or a shorthorn, for they are intended to serve two different purposes. As for the fine calculations of the experts in analyses of butter-fat, ash, &c., that will not guide us in the least as to the ultimate profit of a cow's lifetime. For that, we must know what her calves have returned to the breeder; what her milk-products have realised; how much she fetched when at the end of her career she was slaughtered; and how much her food cost from the day of her birth.

We shall never solve the question, because the whole sub-