How to Set Milk for Profit.

In our columns we rarely permit discussion on questions which have been settled by universally recognized authorities. Such discussions serve no practical ends; for we often find men who insist that their few experiments, or their long experience, should be placed against those who make a profession of investigating similar matters, and devote their whole time and attention to the business.

In our last issue, however, we find Mr. Moyer advocating deep setting in submerged cans, while on the same page we find Prof. Arnold discussing the merits of the different systems of setting. Mr. Moyer says: "Don't use shallow pans." Although Mr. Moyer is a practical butter-maker of many years experience, yet we think he would do greater justice to the cause which he so ardently espouses if he studied the results of other investigators and put them to the test, instead of following his own ideas so closely. No investigator has ever been able to prove that the shallow pan must go. It is true that shallow pans take up more room, and require more time in washing, scouring, etc.; but so far as quantity or quality of butter is concerned, it yet remains to be proved that the shallow pan, on the whole, is an inferior method. Deep setting and submerging are only justifiable when the air is impure, and the temperature low; in a pure air the shallower the setting the better, for the air purifies, ripens, and flavors the resulting butter. The depth of setting should vary with the condition and the temperature of the air; the lower the temperature, the deeper the setting.

The most extensive experiments in the different methods of raising cream have been conducted in Denmark. The following table gives the averages of a large number of tests:

POUNDS OF BUTTER FROM 100 LBS. OF MILK:

	Ice 10 hours.	Ice 34 hours.	Water at 50 Fahr. 34 hours.	Low pans 34 hours.	Centrifugal.	Churning the milk.
Summer tests.	3.37	3.62	3.12	3.63	4.06	3.73
Whole year....	3.18	3.46	2.80	3.41	3.92	3.66
Newly calved cows....	3.40	3.67	3.00	3.79	4.18	3.87
Old calved cows.....	1.52	1.92	2.10	3.48	4.41	3.96
Averages.. ..	2.87	3.17	2.76	3.58	4.14	3.82

From the above tests it will be seen that the highest results have been obtained from the centrifugal separator, being 4.14 lbs. of butter from 100 lbs. of milk, and that shallow setting for 34 hours comes next to it—except the churning of the milk. It will also be observed that deep setting in water at about our average summer temperature (50° Fahr.) produced the very worst results. A striking feature of the above table is the great difference between the butter producing properties of the milk from newly calved cows compared with milk from cows that have not recently calved.

If such have been the results from accurately conducted experiments in Denmark, we see nothing in our conditions which would materially affect these tests, and if Mr. Moyer had attempted to disprove these experiments, instead of making a few tests to attempt to prove his own theories, he might have done something to advance our dairy interests.

Prospects of our Creamery Industry.

It could not be expected that any mutual sympathy would spring up between our co-operative cheese and butter industries. They are separate sciences, and, as a rule, separate investigators are exploring their hidden mysteries. The meetings of the Ontario Dairymens' Association have been visited by a few creamery-men; and when extensive programmes were preseated, consisting of papers read by the ablest dairymen in Canada and the United States, precious time was lost in the discussion of creamery questions, and the creamery-men derived no benefit, from a business point of view, in listening to discussions on cheese-making. We are therefore pleased to see that a separate organization has been formed, which will give a fresh impetus to co-operative butter-making. The President, Mr. John Hannah, of Seaforth, is well worthy of the position he occupies, and the other officers are able and enthusiastic men.

Our readers know well that we have fought many a fierce battle against organizations supported by Government moneys, believing that these expenditures created an artificial stimulus, and that they tended to make the organizations tools to the political party which gave them life. Time and again, however, have we offered to co-operate with them, providing they promised to make party interests subservient to those of our farmers, and the result has been a constant warfare between them and us.

For the purpose of endeavoring to co-operate with the Ontario Creameries Association, we recently attended their first annual convention held in Toronto. We were surprised to find that our voice was heard, and that our suggestions received the greatest respect. The Middlesex Agricultural Council, with whom we are in sympathy in the promotion of our true agricultural interests, recognizing the present importance of our creamery industry, have appointed an expert, and intend devoting a portion of their funds in the investigation of urgent matters pertaining to our creamery interests. The Creameries Association have manfully come forward to their aid, and Mr. J. W. Robertson, the recently appointed professor of dairying at the Model Farm, has expressed his willingness in aiding to the extent of his authority. Mr. Robertson has been identified with our dairying interests for a number of years; he thoroughly comprehends and appreciates our dairying wants, and, as manager of the Model Farm creamery, we expect that practical good will result from his investigations. He faithfully promises that nothing shall be done in secret, and if the evil influences which surround him do not dampen his ardor for open and truthful investigation, the farmers of Canada may expect substantial results. He has, however, already been hampered by the refusal of the Advisory Board to recommend an assistant, and it is hoped that the Commissioner of Agriculture will ignore their advice. If we are to have public expenditures, let them be employed where they will do the most good.

The success of our creamery business is not yet positively assured. There is still some doubt that a practical and uniform method can be found for paying patrons according to the value of their cream or milk; but this question, it is hoped, will soon be solved by the committee of experts appointed by the Ontario Creameries Association. They are starting from correct principles, and if they do not gorge themselves and precipitate a boom by an excess of legislative grants, it is quite probable that success will be assured. One prominent member of the Association assured us that the paltry Government grant of $500, accompanied by stringent legislative enactments, was more a hinderance than a benefit, and he thought that an Association composed of men nerved by the spirit of individual enterprise would accomplish more beneficial results.

We wish the Association every success, and they may count on our sympathy and support so long as they persevere in the noble spirit which animated their initial proceedings.

Fancy Butter-making.

Have the milk of a healthy and properly-fed butter cow drawn in the most cleanly manner. Carefully strain it, and however set, run the temperature below sixty degrees, but not below forty. Skim just as the milk is the least acid; expose the cream to a pure atmosphere and moderately churn as soon as the cream turns slightly sour, so as to produce even concussion in all parts of the cream. Wash down the cream when it assumes a granular appearance, and stop churning when the butter has collected in granules the size of wheat kernels. Draw off the butter-milk and rinse in pure water below sixty degrees. Then float the butter in weak brine, to coagulate the caseine and albumen into a soluble form in about half an hour. Then thoroughly rinse in pure water. Stir enough purified salt to suit your market, and work just enough to thoroughly incorporate the salt and consolidate the butter. Pack directly (or give a second working after standing a few hours) in style to suit your patrons, or in 50lb. tubs, thoroughly saturated with brine. Rub purified salt on the inside of the tub, leaving a sprinkling on the bottom. Cover with a muslin cloth and a layer of salt, and make the package as nearly air-tight as possible. Store in a sweet, cool place. The good quality of the butter is guaranteed.—*Farmer and Dairyman.*

It would be well for people before engaging in the sale or consumption of bogus butter as it is now made, to know of what it is composed. There are sixty different articles named by seventeen patentees in their several patents. Among them are sugar of lead, bisulphate of lime, borax, salicylic acid, benzoic acid, orris root, cotton seed oil, bicarbonate of soda, glycerine, capsylic acid, alum, capsic acid, sulphite of soda, cow's udder, sulphuric acid, pepsin, tallow, lard, salt, corn starch, butyric ether, caustic potash, castor oil, chalk, slippery elm bark caul, oil of sesame, oil of sunflower seeds, olive oil, turnip seed oil, broma chloralum, chlorate of potash, oil of sweet almonds, oil of peanuts, peroxide of maganese, stomach of pigs, sheep or calf, nitrate of soda, mustard seed oil, nitric acid, dry blood albumen, sugar, butyric acid, bicarbonate of potash, caustic soda, dead animals, etc. But these articles are innocent compared with some things that are used. It is notorious that what is called butterine is now generally made in soap factories.