

much about this? Because it's this very butter—that costs nothing, forsooth!—that clogs the market, and every addition counts a loss to our reputation and brings a less price in trade than the cream would bring in good cash at the door, while it would help to build for us a good name. January 16th report of the New York market says: "Dairy and poor creamery butter has gone to entirely unremunerative prices, and there are thousands of packages of this butter now on the market practically unsalable." The problems of agriculture are every year becoming more serious, and we must not be indifferent to the rapidly changing situation. When the steady decline of values began and we felt the pressure of competition and low prices, we were told how to avoid a loss of $\frac{1}{2}$ to $\frac{1}{4}$ in poor skimming. We got the separator and so did others. But our trouble did not end here, for the butter we previously fed to the pigs when it was worth 20 to 25 cents we now carefully put on the market when it is worth 15 to 20 cents, but a quarter is added to the volume. Then we must improve quality, and we tried to put on the gilt edge. Still we can't corner prices, for this seems to be one of the unworkable combines, and the prices continue to decline. What shall we now do? Better say what *must* we do? Put the good cow to the front; fetch a chain to hitch up all the team together. Yes, here is a good one. Ah! but there is a link missing. Never mind, the rest of the chain is good. That won't do, we must have every link to make the whole chain of any use. The cow, the dairyman, the breeder, the feeder, the caretaker, the maker, the marketman and all the other links must be linked together to make a chain to pull us out.

Some people say they "don't like dairy work anyhow, it's too confining, and the stables smell so." Well, the smells are not the fault of the cows, but of a poor stable or a bad stableman. Yes, it's exacting work, but it tends to regularity, cleanliness and gentleness. The successful dairyman loves his work and his cows. If you don't or won't like the business, better have nothing to do with it, as it will be no benefit to you, nor will you be of any benefit to the business.

Mr. Munroe then referred to the individual records kept of several cows in his herd to illustrate the importance of applying the Babcock test and weigh scales to each individual animal in order to ascertain their value. The charts used showed the readings of weekly tests covering a considerable portion of a year. "No. 6, an Ayrshire grade, and No. 7, a Shorthorn grade, stood together in a double stall, each receiving similar care and feed:

No. 6 made 368 lbs. butter at 19c. (our average price for the year) \$69.92
No. 7 made 203 lbs. butter at 19c. (our average price for the year) 38.57

Total difference in product.....\$31.35

"Which shows that No. 6 is worth each year 81% more than No. 7, but her real worth is very much more, as the offspring of No. 6 are proving very valuable as dairy cows, showing improvement in quantity of milk over their dam, and equal in per cent. of fat and continuation of milking period; in fact, one of her daughters refuses to go dry at all. To continue this comparison a little further we find the difference on a herd of 10 cows at \$31.35 to be \$313.50; difference on a herd of 20 cows at \$31.35 to be \$627.

"I might also show you the value of good cows over poor ones by further comparison of pairs of cows, stable mates, and under like conditions. The pairs bracketed together stood in same double stall. Taking three groups—

(No. 6	368	203
(No. 7		
(No. 13	330	229
(No. 14		
(No. 9	308	224
(No. 15		

1006 lbs. butter. 656 lbs. butter.

A difference of 350 pounds between the three poorest and the three best of these six cows, or a loss of over 53% by keeping the poorer kind." A number of other useful deductions were shown by the charts, as the effect of a cold rain, lice, worry, etc., on the butter-fat of the milk of individual cows. In conclusion, Mr. Munro said: "If these comparisons could be extended to the whole number of cows of the country, the showing would be startling. If every dairyman would investigate his own herd and put the misplaced ones where they belong (into beef), there would be few to say dairying don't pay."

Death of Mr. Nicholas Awrey.

We record with deep regret the death at Hamilton, Ontario, on June 10th, of Nicholas Awrey, ex-M. P. P., at the age of 46 years. Mr. Awrey was for many years a prominent figure in Canadian public life, having for 18 years represented South Wentworth, his native county, in the Legislature of Ontario, where he took an active and influential part. He was for several years a useful member of the Council of the Agriculture and Arts Association of Ontario, and was twice elected President of that body. He was the Chief Commissioner from Ontario at the World's Columbian Exposition, and won for himself great praise for his skillful management of the exhibits of the Province. He was appointed Registrar of Wentworth county early in 1896. Mr. Awrey was of a genial and cheerful disposition and of fine executive ability.

A. L. L. POTTS, Pilot Mound, Man.: "I think the FARMER'S ADVOCATE is one of the best farming papers, if not the best, I have ever read."

The Use of a Starter in Cheesemaking.

To the Editor FARMER'S ADVOCATE:

SIR,—For fear of there being any misconception as to the meaning of a starter, I would give this definition. A starter is some milk in which the lactic acid has been allowed to develop.

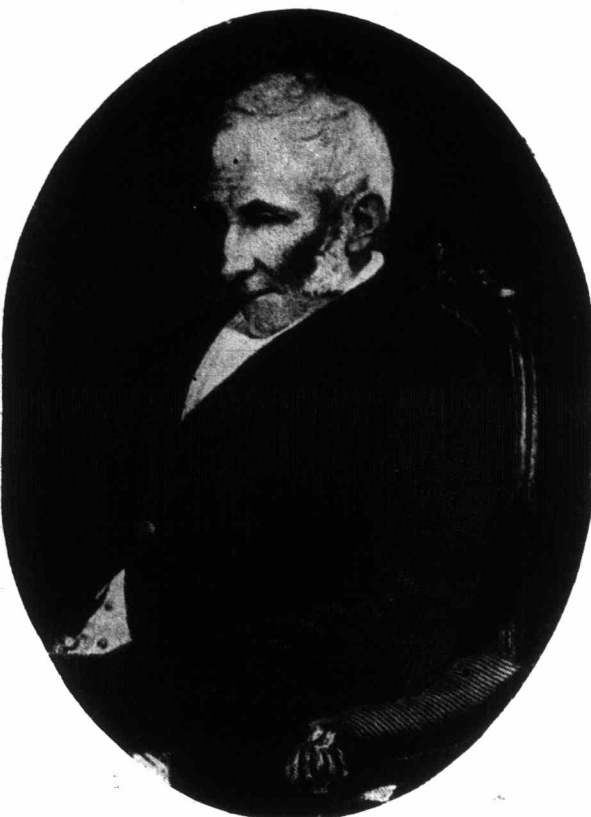
So much has already been said for and against its use by able speakers, also by literature issued by the various experiment stations, by reports of dairymen's associations, and by the press, that I feel rather timid at expressing my humble opinion and experiences.

It is needless for me to say that I am a firm believer in the judicious use of a starter, for the following reasons:

1. It hastens the ripening of the milk, thereby saving butter-fat. 2. It improves the flavor and helps to overcome gas.

Yet some of the noted cheese-men of this Province tell us that its use is as dangerous as that of coal oil in starting a fire if not properly handled. Perhaps it is, but the maker who cannot handle it properly should be out of the business.

I shall briefly describe the way we handle our starter: Take some of the best flavored milk, place it in a can for the purpose, which is a can with double walls, having a shallow space between. In this space is the hot water, into which is a rubber hose. Stir the milk gently, and heat it to 158° Fahr., at which temperature all germs are killed. We then run the hot water off, and allow it to stand for twenty minutes, then cool rapidly to 65°, at which temperature water, about 50 per cent., is added, and also a little old starter. It is then tightly covered and set away until needed. We have also had good results when time would not permit pasteurization by simply taking good flavored milk at 75°, and adding a little of the pre-



SIR CHARLES KNIGHTLEY, A FAMOUS BRITISH BREEDER AND HORSEMAN.

vious day's starter and a little coloring. This is allowed to stand for one hour, when the water is added, about as much as there is milk, having the mixture about 70°. Stir thoroughly and cover close until required. Always break up fine before using, so as to have a creamy consistency.

We have used starter during the past spring almost continuously, and have not been troubled by loss of butter-fat spoken of by Prof. Dean. We set at from 20 to 22 seconds (rennet test) and dip at from $\frac{1}{4}$ to $\frac{1}{2}$ inch of acid on the hot iron and cook 2 to 2½ hours at 100° Fahr.

In conclusion, I may say that where care is practised the starter is a decided advantage; especially has it been so during the past spring, and it will continue to be so in spite of the opposition hurled against it. F. L. SYNTH, Lambton Co.

[NOTE.—To say that because the use of a starter has been of decided advantage during the peculiarly cool spring just past it will continue to be under all circumstances seems a little wide of the mark. If all milk were carefully aerated and delivered to the factory in fresh, sweet condition a starter could certainly be advantageously used during the entire season, but when the hot weather arrives and the last loads of milk each hot morning are already more than ready to set, as is often the case, the starter would find no place, but would be a disadvantage.—ED. F. A.]

WATSON CLARK, of Victoria, B. C., when renewing his subscription for 1897, says: "I am well pleased with the ADVOCATE, as I find the most sensible articles on farming in it that I ever meet with in any paper."

Dairy Legislation.

In our issue for May 15th we felt in duty bound to condemn the McMullen Cheese Inspection Bill before Parliament at Ottawa as a needless piece of legislation that would simply result in imposing a lot of officials on the taxpayers of the country. It was very soon found that dairymen generally did not approve of the measure, which we are pleased to note has been dropped for this session at least.

On two occasions at least, if memory serves us aright, and under both Governments, bills have been introduced in the Canadian Parliament to compel cheese factories and creameries to register at Ottawa, and to brand "Canada" or "Canadian" and the date of manufacture upon the cheese and box or butter tub as well. We have had no hesitation in disapproving of this compulsory registration feature as a needless, vexatious and meddling piece of legislation in the interest of officialism and not of the dairymen; but we did approve, and do still, of branding on simply the word "Canada" or "Canadian." The present Minister of Agriculture, Hon. Mr. Fisher, has reintroduced the Bill, but has left the registration feature entirely optional, and omitting the date, but making it compulsory to brand the words "Canada" or "Canadian" in case of all dairy products intended for export. Any meddling therewith is forbidden, and under another clause no one is allowed to offer or sell cheese represented in any way to have been made in any other month than the one in which it actually was made. The penalty for violations is a fine not exceeding \$25 and not less than \$5 for every box of cheese or tub of butter so offered or sold, together with the costs, and in default three months' imprisonment. One half the pecuniary penalty goes to "the Queen," and the other to the informer.

How to Milk Kicking Cows.

W. O. D. writes:—"It would be difficult, I believe, to find a dairyman of any extent who does not occasionally have in his herd a cow that gives much annoyance from the habit of kicking while being milked. There are a great many prescribed means of subduing such animals, and most milkers have found some plan that works fairly well. Usually really vicious cows have to submit to fixtures of ropes, straps or the like, but even these can be done without if the milker is a strong, resolute fellow who has not the least fear of his cow, and will not lose control of his temper. One plan I know to work well is to tie the cow's head close and secure, so that she cannot jump forwards or backwards. Then set the pail a little way out from her, bend over and place the head very firmly against her groin, and with the left hand grasp the back near teat very firmly and commence milking with the other hand. In all probability she will set up a furious and determined opposition, but if the milker is persistent and stays at his work without a flinch she will soon lose confidence in her ability to kick herself free, and will give up considerably exhausted and subdued. Two or three determined efforts will subdue very bad cases, rendering them ready to stand peaceably for weeks together. Occasionally she returns to her old vice after a time, when another trial of strength and power of endurance will have to be gone through with and will usually suffice. In breaking a heifer or a kicking cow rough usage is unnecessary and unwise. By the plan outlined a really bad case can be milked and subdued in spite of herself by a strong, determined man.

Effect of Ensilage on Butter Flavor.

Does ensilage injure the flavor of the butter made from the milk of cows fed on it? This question has been asked thousands of times, and yet those who answer it do not agree. The bacteriologist says that the flavor of butter comes mainly from the action of bacteria, and some have gone so far as to say that bacteria are the sole source of flavor, and the food of the cow has nothing to do with it. With these last I must certainly disagree writes Mr. Goodrich, although I have the greatest respect for the bacteriologists, and believe that a great part of the flavor in butter does come from bacteria. But we do know that when cows are changed from dry winter food, such as hay, cake, etc., to fresh green grass pasture in the spring, there is a great change in the flavor, the butter having a decided "grassy" taste. We do know that when they are turned on green rye pasture the butter has a flavor similar to that from the fresh grass, and if their only food is green rye this peculiar "grassy" taste is sometimes so strong as to be decidedly disagreeable to some persons.

We also know that when some cows eat wild onions, leeks, and some certain weeds, the taste of the butter is so intolerable that one can hardly eat it. But how about ensilage. I examined a sample of the ensilage which was quite sour and had a slight smell of alcohol. The grain was quite immature when put in. The question arose in my mind then as to how it would effect the butter, and it was some years before I settled the question in my own mind. I never missed an opportunity to talk with those whom I thought might be able to give me some information on the subject. All those who had silos and fed ensilage said it did not injure the butter, and those who had no silos, and therefore knew very little about it, said they would not feed it to their cows because they knew it would spoil the butter. I became satisfied that cows relished en-