

ved, which
le advised
utual bene-
ality of the
to encour-
ough they
utter they
re the de-
ity. There
est cheese
nything of
Milk must
better fac-
e needed.
Hickson,
trons, very
utter would
butter can
t. If only
nothing im-
and it was
culty from
nfortunate
cows that
often milk,
wed to be-
ings. Milk
till all the
weather is
er Sunday,
water. It
airy place
ed never be
rate musty
od give un-
a common
oul water if
makers to
ition. Mr.
ch to draw
which is all
read, was

commended
pails hung
ling should
and should
p out rain,
cases is of
intervals of
of keeping
ously clean
ised using a
l as soon as
flavors in a
with a tin-
le in which
lid-handled
ent advised
eries of large
have a pail
ge bulk was
strainer was
commended
ice water in
h ice. It is
are apt to
a veteran
e Western
lent of the
hat cheese-
their work,
he patrons.
from lack of
on their not
d the char-
farm.

d that pat-
oper care of
understand
t by visiting
and giving
ling down a
that patron
pouring and
of a night's
en minutes.
indly, good-
e number of
e, giving in-
President
that office in
which he is

Dean, butter-
viewed their
mer months.
ense in con-
e is continu-
Cleanliness
of the work.
hat was pub-
uly 1st, 1896,
the creamery
of the paper
umery, which
er per week,
s, so that a
day to day
itish market

ch followed,
e put on the
xes prevents
cream. Pro-
ream ripened
ss milk in it

and, therefore, less milk-sugar for the ripening organisms to work upon.

Mr. Robert Ballantyne, Stratford, speaking from the standpoint of a buyer who has carefully studied the English market, advised pasteurizing cream only in factories where bad flavors gave trouble. Pasteurizing gives a mild flavor to the butter, which the British consumer would rather have than an objectionable flavor, but he did not believe they wanted a flat flavored butter any more than Canadians do. He considers that first-class cream is better not to be pasteurized.

The Dairy Exhibit.—First, 2nd and 3rd prizes of \$25, \$10 and \$5 were offered for September cheese, white, and September cheese colored. Similar prizes were offered for 56-lb. packages of winter creamery butter, and \$15, \$10 and \$5 for entries of ten one-pound prints, besides specials for cheese and butter salted with Rice's pure salt, and for cheese made with Hansen's rennet extract, and for butter colored with Hansen's butter color. The exhibit was extensive and generally of high quality, the scoring being 96, 95 and 94 for cheese, and 98, 97 and 96 for butter. The judges were Mr. A. F. McLaren, M.P., Stratford; Prof. Dean, Guelph, and Robt. Ballantyne, Stratford, who afterwards explained from the platform the reasons for their decisions. The 1st prize for white cheese went to the Misses Morrison, of the Newry factory, Elma, to whom Mr. McLaren paid a high tribute for the excellent condition of their factory. He said one could safely and with comfort eat his dinner off the floor, vats, or even the bottom of the whey tanks, so clean is everything kept. The Misses Morrison responded to the kind remarks by donating their cheese to the Association, who had it cut up and distributed to the members of the Association that they may know what a first-class cheese is like. The 2nd and 3rd prizes for white cheese went to Mr. I. C. Goodhand, Milverton, and Thos. Grieve, Wyandotte. The prizes for colored cheese went to Newton Kosh, Brantford; J. S. Isard, Paisley, and W. B. Thompson, Brookdale, in the order named. The prizes for butter in 56-lb. packages were won by J. R. A. Laing, Avonbank; Jas. Briston, Sebringville, and T. B. Marshall, Tiverton; and for pound prints, T. B. Marshall, Thos. Malcolm, Kinloss, and Geo. A. Boyes, Mapleton. Mr. Boyes won the Hansen's butter special, and Mr. J. R. A. Laing the butter special for having used Rice's salt. Mr. I. C. Goodhand won the special for Rice's cheese salt, and I. C. Goodhand for cheese made with Hansen's rennet.

The judges pointed out that boxed butter should not be colored nor heavily salted, as it should be intended for the British market, while print butter may have more color and more salt. Several defects and excellencies were pointed out, which was considered a valuable feature of the convention.

Benefits of Organization.—Mr. T. J. Dillon, of P. E. Island, expressed his belief that this Association has an important work before it. Perfection in cheese and butter is what makers should strive for, and it can only be approached by earnest co-operation. He pointed out that great wrongs had been suffered by makers signing a guarantee to make first-class cheese, through faulty milk and faulty curing-rooms. He contended that the wages paid makers were barely enough for their work, to say nothing of bearing the responsibility. He contended that a maker in a proper factory should get \$40 per month for his work, and \$50 per month if he guarantees all first-class cheese. Mr. Dillon strenuously endeavored to impress upon the members to hold together, as this cause is a just one and worthy of the respect of our Governments. Mr. Dillon concluded his address with a talk on practical cheesemaking.

(TO BE CONTINUED.)

Overcoming Long Churning.

To the Editor FARMER'S ADVOCATE:

GENTLEMEN,—Two very interesting letters are those of Messrs. Black and McDonald, in issue of Jan. 2nd, re long churning and no butter. "Misery likes company," though I certainly do not wish anyone to churn and churn and get nothing but vexation of spirit and a tired-out body. It is just about a year since I wrote to the ADVOCATE on the same subject. I felt ashamed to do so, as I was a greenhorn at buttermaking, but if Mr. McDonald has the same disappointment after forty years' experience I need not grumble. Since reading Mr. Sleightholm's kind answer I have failed only thrice in getting butter, and the reason was the cows were strippers. Since last May up till the present time I have not had one failure, though sometimes I have had to churn quite a long time—on two occasions two hours, and that in the end of 1895. Since May 19th last my average time required to churn has been thirty-three minutes. Should like to tell you how I do, as it may interest others, just as other methods interest me. I churn once a week. For gathering the cream in we bought a large tin pail, and had a lid made to fit, perforated in center, just under a broad handle. This allows ventilation, and the handle prevents dust from getting in. Cream is stirred when fresh cream is added. But during cold weather I have to keep the cream pail in the kitchen, for what else can one do, situated as I am? Heat is necessary, and we have only the kitchen stove going. For twenty-four hours before churning no fresh cream is added, but the pailful is often stirred and kept ripening. Churning temperature is from 65° to 69°. The churn is scalded and scrubbed, but in this cold season it is not cooled, but allowed to sit till I am "ready for the fray." Have never required to coax

the butter by adding salt. Last week it seemed as if it would not come for a long time, but we had been reading those letters and the answers, so immediately the cream was run off and placed in a pan of warm water and raised in temperature just what was needed: butter after a few minutes' more churning. I do not believe in adding hot water to the cream, as it only thins it and makes matters worse. For starter I use a proportion of good buttermilk, and find it works well. I keep a note of all details, such as pounds of cream, temperature, time required to churn, pounds of butter made, price, etc., and find it a most useful record. I have to thank the ADVOCATE for much information. If failures are recorded, try to avoid them, while successes are copied and hints made use of. It is in buttermaking as in everything else—one must use common sense and the brain one is blessed with. If one plan does not work I shall try another, and success must come at last. Yours Truly—

ESME SHIELDS.

P. S.—I strain the cream into the churn through cheese cloth. It is a great help, but very slow. Can anyone suggest a quicker method? E. S. Ontario Co., Ont.

Will a Cream Separator Pay?

To the Editor FARMER'S ADVOCATE:

DEAR SIR,—I have read with interest in the January 16th number of the FARMER'S ADVOCATE, the experiences of some farmers with cream separators. The first cost and the strength required to run them seem to be the only reasons why centrifugal cream separators are not more generally used. I wish to discuss the first reason particularly.

Before purchasing any machine, we ought to ascertain if it will earn or save enough money to pay a fair interest on the cost, and to make a reasonable allowance for wear. If it does away with considerable drudgery, put that to the credit of the machine also. Now, there isn't an implement on the farm will pay for itself as quickly as a cream separator. A neighbor of mine bought a 350-lb. per hour separator this winter, at a cost of \$90, and he claims that it will pay for itself in one year, and he does not keep twenty-five cows either. Before purchasing, his cows made six pounds of butter a day from 135 pounds of milk, and afterwards, instead of getting 42 pounds of butter a week, he got 52 pounds from the same amount of milk. He says he will make 500 pounds of butter a year more than formerly, which, at 18c. per pound, means \$90. This gain does not imply that this farmer was careless before in his methods of cream separation; indeed, he is one of the most careful and painstaking men I know, and has been sending a first-class quality of butter to Toronto for years, but now he says it's better than ever. With such a showing as this, the first cost does not look so formidable. An investment that pays nearly 100 per cent. interest isn't so bad. Now, is this all? If the machine is set up in a clean and dust-proof room, in or near the stable, there will be no lugging of milk to and from the house, which is particularly unpleasant in winter. Besides this, remember there will be no pumping water into the creamer can tank and no ice to haul and store away (except, perhaps, a little for churning or shipping purposes). As to cream separators being hard to turn, I can say that the Melotte, of 350 pounds capacity (which I have been using), can be run easily by a child.

Ontario Co., Ont.

J. E. BENNETTS.

Instructors Appointed.

A fully attended meeting of the Board of Directors of the Cheese and Butter Association of Western Ontario was held at Stratford on February 12th, the President, Mr. Harold Eagle, in the chair. There were also present Messrs. A. F. McLaren, M. P.; R. M. Ballantyne, A. Wenger, James Connolly, Robt. Johnston, J. N. Paget, J. A. James, Geo. H. Barr, Geo. Goodhand, and the Secretary, Mr. Geo. Hatley. It was decided to expend \$3,400 for instruction at such cheese factories and creameries in Western Ontario as should apply for the services of the Association instructors. The following instructors were appointed: James Morrison, Stratford, for the south-eastern division, comprising the counties of Oxford, Norfolk, Brant, Haldimand, Welland, Lincoln, Wentworth, Halton, and Peel; C. O. Luton, Belmont, for the south-western division, comprising the counties of Middlesex, Elgin, Lambton, Kent, and Essex; George Macdonald, Bluevale, for the north-western division, comprising the counties of Bruce, Huron, Perth, and Waterloo; Arch. Smith, Beachville, for the north-eastern division, comprising the counties of Grey, Simcoe, Dufferin, and Wellington. Mr. Smith will be the instructor at the summer creameries over the whole of Western Ontario, while the other instructors will confine themselves wholly to instruction at cheese factories. The following scale of fees will be charged: Fees for visit of one day's duration—one visit, \$5; two visits, \$8; three visits, \$10; four visits, \$12.50; five visits, \$15. Fees for visit of two days' duration—One visit, \$6; two visits, \$11; three visits, \$15; four visits, \$18; five visits, \$20. The Board recommended that meetings of the patrons should be called on the evening of the first or second visit of the instructors, and it was arranged that if such meetings were held and due notice given, one of the directors would attend the meeting along with the instructor, explain the aims and objects that the Association is trying to attain, and discuss with the farmers the methods that should be adopted for operating their cheese factories or creameries successfully.

No Trouble in Churning.

To the Editor FARMER'S ADVOCATE:

SIR,—I notice in the January 2nd number of your paper that Messrs. Black and McDonald have had "long churning and no butter," and wish to know the cause. I am milking two cows at present and I churn once a week and have no trouble whatever in churning. I use the "old fashion" dash churn, and I churn in from 10 to 15 minutes, no longer. I do not like the plan of Mr. D. H. McA., Ottawa Co., to pour boiling water till it reaches 66 or 67 degrees. I would have oil instead of butter. I keep my milk in a cool room in shallow milk pans and I do not bring the cream near the heat of the stove till about twelve hours before churning, then I heat the cream over boiling water till 64 degrees, stirring all the time. I have had good success, with nice flavored butter. The cows are fed boiled barley and oats mixed with bran twice a day and all the hay and water they want. AGGIE.

[NOTE.—While "Aggie" may succeed in churning the cream from her two cows in 15 minutes at the temperature stated, such rapid work is not conducive to good grain in the butter. The general experience of both dairymen and dairymaids is against the practice. As a rule slower churning at a slightly lower temperature gives better results. The temperature that answers in one district cannot be taken as a guide in another.—EDITOR.]

Building Up a Great Dairy Herd.

To the Editor FARMER'S ADVOCATE:

DEAR SIR,—I have just lately made up my milk record for the past ten months of all my cows that have gone dry up to the 1st of February, since last year's record was made on the 10th of last March. I cannot make up the full herd of 55 cows before the 1st of April, as they will not all have milked their full season before that time, but as this is the time of year when dairy conventions and Farmers' Institutes are being held, I was often asked how my cows were doing this year, and a number of parties wished me to send them a record, so I have made up the record of 40 cows, taking them in regular course as they have gone dry, which I think is a fair average of the herd. The average last year of the entire herd of 55 cows was 10,242 lbs.; average time of milking, 11 months 23 days; butter-fat, 34, and 418 lbs. butter. This year they are doing considerably better, owing to having been better cared for, better fed during the summer months. Fed a half winter's ration of both ensilage and grain all summer, and we tried to protect them from the severe heat and flies during July and August, and continued to weed out all the poorer cows and replace them with good heifers coming in, so that our milk record this year is showing a considerable improvement over last year, and we have been trying to improve every year since we started in to weigh each cow's milk once a week. We test the quality with Babcock tester once a month, and keep a yearly record of every cow, and weed out twelve to fifteen of the poorest milkers every year, and replace them with good heifers, which we have coming in every year, as we raise all our best calves and turn them into either beef or cows. We commenced working on this system four years ago, also of providing green feed for the cows during a drought or very dry time during the midsummer months; but last summer we made another great improvement by feeding our cows ensilage and grain all through the summer; when on either good or bad pasture, fed half a regular winter ration of both ensilage and grain. Cows like ensilage in hot as well cold weather, even when on good pasture. We also added another improvement last year. In very hot weather we kept our cows in stable during the day and out in pasture at night, also washed them with a mixture called "Shoo-fly." We put it on either with a brush or a spray pump made for that purpose; applied it twice a week, which drove the horn flies all off the cows. All of these improvements have had a good effect in largely increasing the flow of milk, so that this season our cows have averaged 11,000 lbs. of milk, each testing 3.5-10 fat, making 476 lbs. butter. Average time of milking, twelve months. The average time of milking twelve months seems long, but that is caused by our milking our two-year-old heifers with first calf longer than we do the older cows, viz., twelve to sixteen months, and cows weeded out for beef are also milked a longer period, which lengthens the average time on the whole herd. My best cow, No. 56, is a cross. A Holstein bull crossed with a Shorthorn cow, being a half Holstein, half Shorthorn. She is now six years old. She gave first year, as a two-year-old, 10,100 lbs. in eleven months; next year she gave 15,000 lbs. in eleven months; next year, 17,740 lbs. in ten months twenty-one days, and this year so far, in ten months up to 1st Feb., 18,000 lbs. of milk. Now giving 31 lbs. per day, we intend milking her two and a half months longer, making twelve and a half months. We expect she will give in the twelve and a half months 20,000 lbs. milk—nearly twenty times her weight in milk in one year. The quality of her milk has averaged during the whole four years about 3.6-10, running from 3.4-10 to 4.0 fat, which made into butter for the first year would be 424 lbs.; second year, 630 lbs.; third year, 745 lbs.; and the forth (this) year (the phenomenal), 840 lbs. of butter from one cow in one year. In the four years she has given 62,810 lbs. milk, making 2,630 lbs. butter. You will not find many cows in America that have beaten this record. Now, this