

BOOK REVIEW.

MODERN BUTTERMILKING AND DAIRY ARITHMETIC.

"Modern Buttermaking" and "Dairy Arithmetic," appears, at first sight, to be a peculiar combination title for a book on dairying, yet, on perusal of the work, one finds that the author, Martin H. Meyer, of Madison, Wis., U. S. A., who is also his own publisher, has selected wisely when combining these two topics, as dairying and mathematics are closely associated. The farmer's wife who makes a churning of butter, must go through some form of mathematical calculation before she can salt the butter to suit customers. We are aware that there is a tendency to rebel against the dictum that all science must be reduced to mathematical equations or illustrations before it can be accepted as true; and we are also aware that too many science writers load their subject with mathematical formulas, charts, plans, etc., which are more difficult to understand than the matter which they are supposed to illustrate, yet we cannot get away from the value of arithmetic in butter-making, more particularly in testing milk and cream, which forms a very important part of applied dairy knowledge.

The book before us contains several novel features—short introductory articles by five leading American dairy authorities, accompanied by half-tone illustrations of the Dairy School Buildings of which they have charge; the indexes of each chapter in Book I, are placed at the beginning of each topic treated, instead of at the end of the book, as is usually done; and the book is packed full of meaty matter, instead of having a lot of pictures or illustrations, which, in many cases, bear little or no relation to the subject matter. The tendency in modern publications is to develop a brainless reading constituency, as all they (the readers) have to do, is to look at the pictures or illustrations, and they have the matter at once without mental effort. This may have been satisfactory for a childish age, but is surely not in keeping with modern educational development and the making of brainy men and women.

The author tells us in the preface: "This volume is to be considered only from a practical point of view," and he has succeeded well in his efforts. Among the many practical suggestions found in the book, we can refer but briefly to a few. He emphasizes the need of great care at the "intake," showing how a good man stationed at this point can make the creamery a success, while a poor man can mar the business beyond repair.

Accurate weighing and correct sampling of milk and cream for testing are given considerable prominence, but no more than they deserve. He says composite sampling of cream will give very good results, but there is more danger of errors than where each delivery is tested.

We are somewhat surprised to read that among American creamerymen it is not customary to take into account the "meniscus" in the fat column when reading Babcock tests of milk, they claiming that it takes the "meniscus" to make up losses in handling and marketing. We have heard of cases where the creameryman was not satisfied to take the "meniscus" only, but insisted on slicing off a piece of the fat column as well.

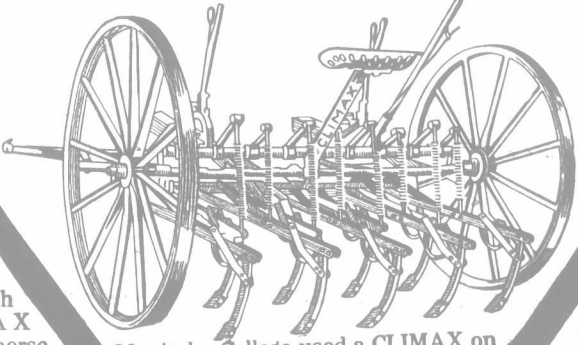
The writer warns inexperienced persons against the use of colored liquids in making readings of the Babcock test.

The value of a pure culture (starter) in order to make good butter is stated in terms of added value to a pound of butter—from 1c. to 2c., and, in some cases, as much as five cents. "Burnt" flavor in culture and butter is more common when cows are fed on corn in excessive amounts.

The temperatures recommended for ripening cream are 67 degrees to 72 degrees in winter, and 64 degrees to 69 degrees in summer. Overripening of cream is the cause of much poor butter, and should be guarded against. He refers to the unex-

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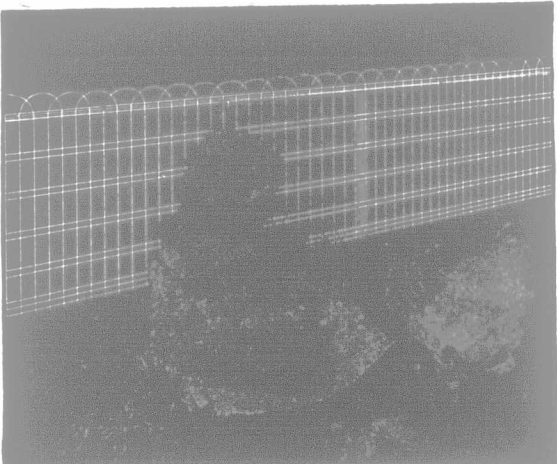
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plainable practice of thermometer manufacturers marking 62 degrees as "churning temperature."

"Salvy," "greasy" butter, should be prevented, and is due, he claims, to improper care of the cream and incorrect methods of churning, rather than to methods of handling the butter after churning. "The more ragged the granules (of butter), the finer the flavor and better the body of butter." P. 103.

The washing of butter ought to be done quickly in order to avoid loss of flavor in butter. Directions to know when butter is properly worked, always a difficult point with the buttermaker, are given on p. 106.

We cannot say that we agree with the author, who says, that, as a rule, it is not advisable to sell butter under your own creamery brand, but that it is better to sell under a brand of the dealer or commission house.

Methods of retaining moisture in butter, and how not to exceed the legal maximum percentage of water in butter, are fully discussed on pp. 126 and 127.

"Specks in butter," though seemingly a small matter, frequently cause trouble—the cause and remedy are given on p. 148.

The pasturization of milk and cream are highly recommended. He says, p. 174, "Practice does not sustain the contention that pasteurization favors slack methods." The use of viscogen to neutralize the acid in cream before heating, and the aeration of cream during pasteurization and cooling, are somewhat new methods to Canadian creamerymen, and should be adopted with caution.

Full discussion is given to the various methods for determining moisture in butter. By means of simple apparatus, a buttermaker can know, approximately, the percentage of moisture contained in the butter which he is making daily, and he ought to be familiar with these short methods.

Book II, deals with mathematical dairy problems, and ought to be specially helpful to the boys in creameries, who are up against these problems every day, and often have difficulty in solving them.

The book can be very highly recommended to creamerymen and buttermakers. Price, \$1.50, postpaid, through "The Farmer's Advocate." H. H. D.

GOSSIP.

THE GREAT AYRSHIRE SALE.

When it was stated in former issues that the 134 head of Ayrshire cattle to be sold by auction at Maxville, Ont., June 28th, by Robt. Hunter & Sons, were the highest types of the breed in the matter of quality, breed type, showing form and high official production, not one word was said that will not be proven true by Ayrshire fanciers when attending the sale. One hundred of them are imported, selected from the leading herds in Scotland, sired by the most renowned bulls in the land of the origin of the breed, sons and daughters of the highest-record and testing cows in Scotland, as well as the winners of the highest honors at the leading shows, very many of the offering winners before being shipped, some of them unbeaten in their classes at several shows. A large number of those in milk have qualified for the Canadian official Record of Performance, some of them in less than six months. All those not imported direct are either imported in dam, or have imported sire and dam; 46 are cows in milk from three to eight years of age, 28 are two years old, 30 yearlings, 10 calves, and 16 bulls and bull calves, the other four being but a few days old. Every year shows a marked increase in the demand for pure-bred Ayrshires over the preceding one, breeders reporting the demand far greater than the supply. Dairying in Canada is only in its infancy, and is surely destined to soon become one of our greatest national assets. It costs no more to keep a pure-bred dairy cow than a grade or a scrub, and the value when they come to be sold is anywhere from two to ten times as much. This sale will present an opportunity never before equalled in any country to stock up or lay a foundation for a herd of one of the world's very best dairy breeds, at the buyer's own prices. Remember the date, Wednesday, June 28th, and lay plans to attend.