

The Dairy.

Modes of Acquiring Dairy Knowledge.

BY L. B. ARNOLD.

An Address read before the Dairymen's Association of Eastern Ontario, at Belleville, Feb'y 9th, 1882, by Professor L. B. Arnold, President of the American Dairymen's Association.

The amount of knowledge which a man in a lifetime may acquire upon any, or all subjects, may be very great or very small, but whatever it may be, he will be indebted to his associates and his race for all he knows. This is the rule. The wisdom of the world consists of knowledge conveyed from one to another by means of oral or written language, or by the aid of some of the senses. It is acquired knowledge. It is neither intuitive nor developed. A few only originate and discover new truths. The number who really add anything to the sum total of human wisdom is so small as to constitute but a few sparse exceptions to the general rule. Those who are diligent and quick in perception often become very learned and wise, but it does not follow that they themselves have added anything whatever to the original stock of human knowledge, all they know having been obtained from their contemporaries or from those who have gone before them. Men thus learned are plenty and are useful members of society, because, without diminishing their own stock of knowledge, they are always imparting useful information to others. But those who originate—who discover, or invent, or develop new truths are not only few in number, but are not always useful, either to themselves or those about them. Their usefulness more frequently comes after they have passed away. Such men may be said to live in advance of the age in which they are born.

What is true of knowledge in general, is equally true in respect to a knowledge of dairying. The dairyman's knowledge is not intuitive. With only a few rare exceptions of items developed by investigation or experiment, it is gathered from sources outside of himself. Since our information upon this subject must be gathered from others, it becomes a matter of interest to enquire how it has heretofore been acquired and what are now the best facilities for obtaining it.

As an art or an industry, our knowledge of agriculture has, for long ages, come to us by tradition. It has been handed down from father to son, generation after generation, with little addition to the general fund as it has travelled down the stream of time, and it is still true that the most we know of the art of cultivating the soil—the art which employs more people than any other, and the one on which the sustenance of the human race depends—comes to us in the same way. We learn some things by reading and studying agricultural publications, but how small a share of the general agricultural education is obtained from this source, may be inferred from the fact that in the State of New York, where there is as much, if not more, agricultural reading than in any other part of the continent, there is but one agricultural paper taken for every twenty farmers in the State! This indicates pretty clearly how little of this kind of reading there is done in that great and enlightened State, and shows unmistakably that what the great bulk of farmers know respecting their own business has been handed down to them orally or by imitation, or by such observations as neighborhood intercourse could furnish.

A knowledge of that division of agriculture in which we are more particularly interested has, of course, come down to us in the same way. Until within two or three hundred years history has said very little about dairying, and during that time what little has been known about it has been transmitted from parent to child like other agricultural information. Nothing more than a very contracted view could thus be obtained. There is very little chance for improvement where people do not go outside of their immediate neighborhood or their ancestors for information, and if, perchance, an improvement is made, the isolated condition of dairymen and their consequent limited social intercourse causes it to remain confined to the originator, at whose death it lapses again into the unknown and is lost, perhaps, forever.

With skill obtained only by such narrow means there is no wonder that so little progress was made for the 300 years ending at the middle of the 19th century. Less progress was made in all that time than has been made since.

If one would make improvements and stand high

in his calling, be it dairying or anything else, he must by some means avail himself of the advances made by others, or he will fall behind those who do, if, indeed, he moves at all.

The first effort of any magnitude on this continent to push out for information beyond the narrow limits of tradition, was the organization at Utica, N. Y., Jan. 7th, 1864, of what was at first known as "The New York State Cheese Manufacturers' Association."

That the object of this association was educational, and designed to obtain information outside of the customary course, is evident from the preamble and resolution adopted previous to the adoption of articles of association. They were as follows:

"Whereas, it is deemed expedient to organize an association through which, as a medium, results of the practical experience of dairymen may be gathered and disseminated to the dairying community; therefore,

"Resolved, that we, the undersigned, do hereby associate ourselves together for mutual improvement in the science of cheese-making, and more efficient action in promoting the general interest of the dairying community."

This was an important movement, as subsequent events have shown, toward improvements in the whole art of dairying, though at first designed to be confined to the manufacture of cheese only. The impulse which this organization gave to the cheese interest was almost magical. It at once greatly improved the quality of cheese, reduced the amount of milk required for a given weight of product, and diminished the cost of manufacture, and thus considerably enhanced profits.

As there was occasion to extend its sphere of usefulness beyond the limits of the State in which it originated, it remained a State institution but two years, when it reorganized under the name of "The American Dairymen's Association," to include in its field of operations the United States and Canada.

Its example has been followed till there are now twenty State or larger associations in the United States and Canada. In the yearly meetings of these associations are discussed the views and experiences of thousands of operators, including the details of successes and failures, and the rules and philosophy in the various operations involved in the different processes.

The influence of this innovation in the mode of acquiring a knowledge of dairy matters has not been confined to this continent. It has gone across the Atlantic, and the British Dairy Farmer's Association, modeled after the original one, is now enlightening the dairy farmers of the British Isles, and another, more local in its field of labor, has recently gone into successful operation. The dairymen of Australia are moving in the same direction, if they have not already organized.

The fundamental idea in this movement was mutual instruction. The amount of information which has been mutually interchanged and disseminated through the dairy public, by way of the addresses, discussions and reports of these associations, has been simply immense, and its value beyond computation.

The publications which have emanated from these numerous associations have not been confined to the single purpose of the original organization—the manufacture of cheese—but they have taken in the whole scope of the industry in all its ramifications and bearings. The comprehensive character of the matter published, and the enormous amount distributed for study and for reference, has originated and established for the dairy interest a literature peculiarly its own.

The work which the dairy associations are now doing is still useful and valuable, but the zenith of their importance is past. National associations and those intended to cover large areas are, in particular, not as much of a necessity now as formerly, since organizations more local in their character can do equal work with less inconvenience and expense. Dairy associations have lost much of their interest and also their efficiency and usefulness by reason of the diffusive character which their proceedings have gradually assumed. Such associations are generally organized in the interest of a specialty, such as the manufacture of cheese, or butter, or, as is usually the case near large towns and cities, in the interest of producing and marketing milk.

When the exercises of an association take on a different character from the one for which the great body of its members organized it, they lose interest in its proceedings and cease to attend and support it. A man who is only interested in the

manufacture of cheese listens with indifference, if not with impatience, to dissertations upon raising stock and general farm management, or to learned disquisition upon the relative importance of nitrogen and carbohydrates in cattle food. He even listens with a dull ear to essays upon butter-making, though so nearly allied to his own business. The butter-maker, in turn, cares little about cheese-making, and both grow impatient under a laudatory treatise on Shorthorns as milkers, or on some other thoroughbreds, which details their origin through a long line of ancestry, and gives the precise herd-book numbers which identify them. The farmer who never expects to make cheese or butter cannot by any sophistry be induced to attend meetings only designed for the manufacture of his milk into one product or another, although it is important for him to know how the production and handling of his milk affect the value of the products to be made from it.

A horticulturist is not interested in a wool-growers' convention, nor a bee-keeper in one devoted to the raising of poultry. Specialties, therefore, should each be kept by themselves if an organization is to be formed which will hold together. The American Dairymen's Association was formed originally for advancing the manufacture of cheese, and so long as its conventions were chiefly devoted to that object it was prosperous and useful; but as the topics for discussion led off from this object it lost prestige and usefulness. Its cheese-making members dropped out one by one, till its conventions have come to be attended by those only who feel an interest in the general business of dairy farming. The number that can be called together for this purpose is barely enough to keep the breath of life in it. The organization which is assembled here to-day had its origin in behalf of cheese manufacture. Three quarters of the faces before me I can recognise as devotees of the cheese vat, who have given countenance and support to the association, and I warn the managers of it not to lead the exercises too far away from what will interest and profit them, if they would not see it fall into the channel which has dwarfed the efficiency of the American Association and blotted several others out of existence.

Another means for the education of dairymen has been afforded by the public press, which is always a powerful lever for pushing any object to which its attention is turned. Enterprising publishers have opened their columns to dairy writers who have not been slow to occupy them with matter relating to the dairy. Through their agency a large amount of useful reading relating to the dairy has been spread out before the dairy readers for their pleasure and instruction. But there is a heavy drawback to this source of information. The statements of those who write for the dairy cannot always be taken with implicit confidence, even though the authors have had large experience. Different men do not always see things in the same light, nor in the right one. What is more unfortunate, there is a pretty numerous class of writers for the dairy, as well as for other agricultural departments, who have neither experience nor knowledge of dairy matters, who, nevertheless, coolly assume to write for the edification of those who have. The effect is to confuse and mislead those who cannot sift out the truth for themselves, and to seriously detract from the usefulness of the press as a means of improving the dairy interest.

An exhibition of dairy goods with prizes for the best in connection with agricultural shows, has been resorted to, almost time out of mind, for the purpose of educating dairymen in their art, and of stimulating them to a higher skill by the pride of distinction and the hope of reward. So far as the exhibition of dairy stock and dairy apparatus is concerned, the exhibits in the dairy department of such shows have been the means of doing much good. The display of dairy apparatus has been a very effective means of keeping dairymen posted in regard to the latest and most improved devices for the execution of their work, and for the improvement of their goods. In respect to stock and apparatus, dairy shows may be catalogued with the active agencies for advancing the dairy interest, but so far as the influence of displays and prizes for dairy products with the intent to level up the lower grades of manufacture to approximate those of higher grades, is concerned, I question whether they will ever pay for the ink and paper used in advertising them. The mode of exhibiting and of awarding prizes precludes the possibility of any material benefit. The nature of dairy products is such that they cannot, like stock and tools, be judged by inspection with the eye only.