

VOL. XXXII.

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LONDON, ONT., AND WINNIPEG, MAN., OCTOBER 15, 1897.

No. 440.

EDITORIAL.

Notes from the British Association for the Advancement of Science -- Fence Wire Lightning Rods.

To the Editor FARMER'S ADVOCATE :

In answer to your request for notes on points of special interest to agriculturists in connection with the recent meeting of the British Science Association in Toronto, I may say that much was said and done of direct and indirect interest and benefit to all classes of the community. The Association was divided up and worked in eleven sections, holding their meetings in different rooms and buildings. On an average about eight leading addresses were made each day in each section, or between eighty and one hundred addresses on each of the five chief days. Only two papers treated specially of agricultural subjects. These were both very interesting and useful. One was an illustrated address showing the results of fifty years' experimenting at Rothamsted, England, on the absolute and relative values of different kinds of manures and different combinations and rotations of manures upon the cereals during a period of fifty years, by Dr. Armstrong, F. R. S., a leading analytical chemist. I suggest that when his paper is published you quote it at length. Readers of agricultural chemistry will find considerable that is new in matter and method, and to every farmer it will be interesting and useful. Dr. Saunders, F. R. C. S., Ottawa, read a paper on experiments in cross-fertilization. It was made specially interesting to those present by his showing the parent plants and pointing out the combination of the peculiarities of the parents as displayed in their progeny.

I had the opportunity of discussing Mr. Baty's fence-wire lightning rod with Professor Lodge, D. Sc., of Liverpool. He is an eminent physicist, and the author of "Lightning and Lightning Guards," the standard English work on the subject of which it treats. He said that with proper ground connection Mr. Baty's plan would work well; the conductors, to be effective, must terminate below in water or damp earth; and that well-galvanized fence wire is an excellent conductor, much better than copper or its compounds. He disapproved of twisting the wires tightly: two loose cables of three wires each are far better than one tight one of a half-dozen strands. Provided the ground connection be proper, the wires may be stapled to the building without insulation. He saw no objection to Mr. Baty's plan of attachment, He seemed to think that a building whose bighest lines and all projecting points were thus protected by single wires or loose cables terminating in damp grould would be well guarded.

Our market quotations give abundant proof of our behindhandedness in buttermaking education. Why should there be any "creamery seconds"? Why should not all our butter be "fancy fresh"? In Canada it should not be truthful that "a buyer wanted 100 boxes of fine creamery to fill a shipment order, but failed to get it," while in the same paragraph "undergrades were plentiful, but slow sale," and that at two and three cents less than choice would bring.

And again, "very little choice creamery in offered," and "market bare of really good stuff, no lack of secondary and inferior stuff, and its presence keeps rates down." And such quotations as these have been, and are, very common in the Canadian journals of trade. And this state of affairs is the result of the work done at the farm and the factory. The former we leave for the present. There is a prevaling idea even among makers of butter in creameries that it does not require very much training to make good butter. Our cheese industry stands where it does as a result of the persistent training of makers in uniform, up-to-date methods of manufacture. Our butter trade will attain to similar eminence only as a result of similar training. Men, or women either, do not grow up with an inherent knowledge of how to make good butter any more than with an inherent knowledge of how to make a good cheese or a good self-binder, or a sideboard or an electric motor.

A second proof of our buttermaking inability may be seen in our exhibits, or, rather, lack of exhibits, at our fall exhibitions. Several causes combine to produce this result, but the chiefest is lack of ability in the maker. The prizes offered at Toronto-our best exhibition-were quite high enough to act as bait to the progressive man, but the butter was not there—indeed it was one of the most belittling exhibitions of creamery butter that a stranger could gaze upon. If buttermakers had faith in the excellence of their product they would be heard from at our exhibitions. And, too, while some makers get along fairly well in cold weather, the hot weather draws out the skill, if there is any. Summer buttermaking has been but little studied in this country, and is not equal to the demands made upon it. It must be remembered, too, that many of our makers have been accustomed to make only for a Canadian trade; but now, when by our refrigerator system we are bringing English markets close, it behooves us to remember that the Englishman has been long trained in judging butter and will not accept, at such prices as we desire, anything but a choice and regularly uniform article. And here we come to the pith of our butter trade-the possible extension of our industry with England. The most stringent regulations with respect to the branding of our products as "Canadian," and the prevention of any one, Canadian or American, using such brand on anything but Canadian goods, may, we believe, be left to the governing power. Some-a considerable amount, we believe-of our prestige in the land across the water must, and will, be gained by the trademark "Made in Canada," and may infringements be prosecuted with fullest Canadian justice. None of our chiefest agricultural money - producing exports-cheese, bacon, wheat, beef (and butter in the not distant future)—have ever gained, but lost, in bearing identification or keeping company with American goods. We are in some danger here. Many are troubled that our excellent cold storage carrying capacity has not been more fully used. Acting on this and trying to fill up with something, good or bad, is to be deprecated inasmuch as quantity is secondary to quality and will never gain us any desirable to quality and will never gain us any desirable place on the English market. Far better that space should go unused than be ill-used. It is to be deplored that much of the milk made up in the

private dairy could not be diverted to the cooperative creamery, and thus relieve the market of the great mass of stuff that so utterly demoralizes the trade and leaves so little profit in its wake. But we cannot stay to think here.

Cheese is the great competitor of the butter trade as regards the raw material, and will continue to be, but it will be less so when farmers think more. Cheese and whey vs. butter, buttermilk and skim milk is a subject worth some thought. When more thought is expended upon it, more butter will be made and less cheese proportionately. Sixteen to seventeen cents net for butter-fat and 95 pounds of by-product per 100 of whole milk is a desirable situation for a farmer to occupy, even in the face of the present price of cheese. At the present (and past) price of veal and pork, such by-product is worth 25 cents per 100 pounds. But this is not all. The first and chiefest basis of all profitable herd rearing is skim milk. When cheese is made there is no skim milk, and therefore the first and chiefest basis for the successful rearing of a dairy herd is not available

Whey as usually available is not in any sense a substitute for skim milk in this particular. Proof abundant and eye-offending awaits the unbeliever in the farmyard of any cheese factory district. What of it! One of three things. First, factories must operate the year 'round, making butter during winter, and the cows whose calves are to be reared must freshen at the opening of the butter season. Secondly, where cheese factories operate, farmers must make butter in winter and rear the needed calves at that period. Thirdly, make butter the whole year.

To show how mercenary-minded some dairymen (?) are, we need but to mention that the patrons of some few creameries in Western Ontario. not knowing the value of skim milk, have sold it to make "curd," realizing about 15 to 18 cents per 100 pounds. Surely whey is good enough for such, and Canada has little to expect from them by way of improvement of her industry. We are pleased to know that a number of factories that were approached could not be caught by the chaff of curdmaking. The foes of our butter trade are not ion a protest against the extravagant waste practiced by many factory patrons. If the cheque the patron receives monthly from the factory is his only revenue, our butter trade receives but secondary support. The right and intelligent support of this growing trade finds its beginning and chiefest mainstay in the intelligent, systematic, continuing development of the dairy herd ; while the development of the dairy herd, which is the outcome of well-directed brain power, will also be largely the outcome of our growing butter trade. In conclusion, the butter trade of Canada has lready entered upon a great revival. If education keeps pace for the next decade, Canada's butter will have no superior in the world's markets. The raw material that makes the best cheese in the world will also make the best butter, if the requisite skill and training be brought to bear upon it. But there must be scholastic training, and it must come now. It would seem to the writer that it would be well to have one of our dairy schools devote its entire energy to this one branch of the dairy industry. A recognition of the importance of this trade in this way would give us prestige with the outside world, and accrue to us financial good through years to come.

J. DEARNESS, I. P. S.

Our Butter Trade.

BY F. J. SLEIGHTHOLM, B. S. A., PRINCIPAL OF WESTERN ONTARIO DAIRY SCHOOL.

Our butter trade is growing faster than our knowledge concerning it. Our Governments are doing handsome things to help us in developing the industry, but they do not seem able to make many good buttermakers ; nor to teach creamery owners that well-constructed buildings, trained buttermakers, and a competent executive board, etc., are positively paying investments; nor to instill ambition into those who make our butter; nor to convince those who supply the milk that theirs is the chiefest end of the industry ; nor even to prove that skim milk has a dollar and cents value above the price received by some of our Western creameries for that article manufactured into "curd." In consequence, we presume that our Governments think that these matters are for individuals and for companies to consider and to develop; and who will not agree ?

Premiums.

We assure our readers they need not hesitate to try for any of the valuable premiums offered in this issue (page 463), as we have always maintained the practice of sending out articles exactly as rep-