

Association to the above-named countries, read a paper embodying the information he had collected and the views he had formed as to the bearing of technical education upon the dairy industry.

It appears that in the ten years 1886-96 our imports of Danish butter increased threefold, and those of bacon and ham sevenfold. This remarkable growth in the Danish export trade is attributed to the fostering care of the Danish Government, whose influence was exerted, in the first instance, through the Royal Agricultural Society of Denmark. The society began its work sixty years ago by organizing a system of education in dairying for peasants' daughters. The subsequent establishment at the Royal Agricultural College of a professorship in dairying resulted in the training in the science of dairying of a number of young men, who diffused among the farmers, by farm-to-farm visits, the expert knowledge they had thus acquired in the feeding of cattle and in dairy-work generally. An additional professor, with State endowments, was appointed to conduct experiments in practical dairying, such as the economic use of ice, separators, and the system of shallow setting, the best methods of conveying butter, feeding, systems of butter-yields, &c. The State also provided four consulting dairy experts, whose assistance may be had by the payment of their travelling-expenses only. The advice of an engineer as to the use of machinery in dairies and the economic use of coal may be obtained in a similar manner. The further action of the State include (1) annual grants to agricultural societies, farmers' clubs, &c., to encourage the breeding of improved dairy cattle and pigs; (2) annual grants of nearly £6,000 for experiments in the stamping-out of tuberculosis; (3) the development of the railways; (4) the provision of special refrigerator-vans; (5) a stringent Margarine Act—a fraudulent infringement of which is punishable by imprisonment; (6) the holding of butter-shows—the exhibits to be despatched immediately upon the receipt of a telegram asking for same, so as to insure that the ordinary produce only shall be judged. There are about eighty dairy-schools—called "popular," "high," and "agricultural" schools—and all of them were initiated by private enterprise. The teachers are generally students or graduates from the Royal Agricultural College. About ten of these schools take agriculture as a special study.

Mr. St. John thus describes a school visited by him: "The school has accommodation for one hundred pupils of both sexes, all of whom are boarders from eighteen to twenty-five years of age, and they attend the school for a six-months course. The pupils are drawn from all classes of society, though mostly from the peasant class. The aim of the school is, first, to develop the personal character of the pupils; and, secondly, to give systematic instruction in agriculture and the sciences on which it is based, such as chemistry, physics, natural history, anatomy, physiology, &c. A farm of 170 acres is attached to the school, and an experimental plot of about 20 acres supported by the State; but the whole of the instruction is theoretical, the pupils being supposed to have gained practical knowledge by work on the farm and in the dairies of their homes. The fees are from 30 to 36 kronas per month—that is, from £1 13s. 4d. to £2. The State supports these schools by a yearly grant of £10,000, but makes it a condition that a certain proportion of the sum allotted to each school shall be devoted to partly paying the fees of deserving students. I was informed by the principal that only a small sum is granted to the pupils to assist in paying their fees, and that the schools are nearly always full, a vacancy seldom occurring. . . . In addition to the above-mentioned grant, the State annually votes about £700 for higher instruction to dairymen and dairymaids. This sum is chiefly spent among the more experienced men and women, to enable them to visit the best-managed dairies at home or neighbouring countries, especially for the purpose of studying cheese-making."

In Sweden the dairy exports are rapidly increasing year by year. The State is working on similar lines to those of Denmark. In addition to the agricultural colleges of Alnarp and Ultuna, dairy instruction is provided by the following means: One higher dairy-school for experts; one lower dairy-school for men; seven lower dairy-schools for women; twenty-four stations for women. There is a chief dairy inspector appointed by the Government, and twenty-three experts appointed by the agricultural societies of the different counties, who also pay the greater part of the cost of the schools. The total expense borne by the Government is £7,530 (schools £2,700, the two colleges £4,830). Alnarp Agricultural College includes the following divisions: (1) Higher agricultural college, (2) lower agricultural college, (3) higher dairy college, (4) lower dairy-school for men, (5) lower dairy-school for women, (6) a gardening college, (7) a farriery school. The higher dairy-school is open only to experts and teachers who have passed through the agricultural college and afterwards had one year's practice in dairy-work; instruction is given in milk-testing, chemistry of milk, bacteriology, breeds of cattle, diseases, engineering, butter-judging, analysis of milk (chemistry and bacteriology), design and estimate of dairy-buildings, book-keeping. There are six pupils, who pay a fee of £33 6s. 8d. per annum. The lower dairy-school is for foremen of larger dairies, who must have a good knowledge of arithmetic and writing, and have had at least one year's practical work in a dairy. The course is for one year: six pupils; fees, £22 5s. per annum. The lower dairy-school for women is maintained by one of the county agricultural societies. The course is for two years, the greater part of which is spent in practical work in large dairies, and the remainder in theoretical instruction in the composition of milk, correct management of milk, milk-testing, butter and cheese production, butter-judging, book-keeping. The instruction is free, and an allowance is made for work-dresses.

Mr. St. John observes: "A visit to these countries and a study of this question fills one with admiration for the people, who by their energy and persistence, and by their willingness and ability in availing themselves of the help offered, have raised this trade to its present importance. . . . The rent of the land is about the same as with us, and the mode of cultivation as costly, while the average return for the milk produced is 3½d. per gallon. How, then, is the farmer enabled not only to live, but to save money? I think the explanation lies in the facts that (1) the farmer, his wife and family, all work; (2) they live more frugally; (3) their co-operative methods of manufacture effect great economies; (4) their agricultural technical instruction is more thorough; (5) the people are more ready to avail themselves of that instruction. . . . In England about