

The engraving gives a good idea of the last novelty in the way of farm machines. It was tried before a committee of farmers in England last summer as a conveyer of insecticides on the young turnip plant, and, after a searching examination of its effects, it was found that, whether in liquid or in powdered form, nor a particle of the turnip leaf was left untouched by the vehicle employed.

The Short-Horn heifer Princess Royal 6th, whose portrait (engraved from the London Live Stock Journal) appears herewith, gained a large number of prizes at the shows of breeding stock in 1886, 1887, and 1888, and won first prize at the Smithfield Club Show last December. She was got by Fernandez 2nd 49,582, dam Princess Royal 4th, by Bromgrove 44,480, and seems to be a remarkable heifer, as our contemporary remarks that "although she has been in strict training from the day of her birth, and will not be four years old for some months, she produced to Denmark the promising yearling bull Josephus (already a winner), and within the last few days a strong, healthy sister to him—a clear proof, if any were needed, that judicious preparation for exhibition is not incompatible with early and regular fecundity." She was bred and is owned by Mr. Thos. Eades Walker, Studley Castle, Warwickshire.

Capelton, P. Q., 23rd April 1889.

ARTHUR R. JENNER FUST, Upper Lachine.

Dear Sir,—Your post card of the 21st received.

The apatite we are dissolving is not high grade, but the average of four samples analysed is 11.52 per cent available phosphoric acid.

We have not yet got a reply from N. Y. about sulphuric acid (brown) but hope to let you know next mail.

Truly yours,

G. H. NICHOLS & Co.,

This I presume is said of the plain superphosphate, which Mr. Nichols, in a letter to the Sherbrooke Examiner, says he can furnish at \$10 a ton, in bulk, at the Capelton factory. Two hundred and fifty pounds of this or three hundred at most, should give a fair crop of common turnips; a slight dressing of dung and 200 lbs. of superphosphate, a good crop of swedes. And the cost—half a cent a pound! A. R. J. F.

FOREIGN DAIRY SCHOOLS

THE SIMPLE CHARACTER OF THE DANISH SCHOOLS.

Theory and Practice kept separate—Dairy Schools only one factor of improvement—Wanted in Canada schools for training teachers.

LETTER XI.

To the London *Canadian Gazette* of recent date there was an extract from a Toronto paper insisting upon the establishment of dairy schools. This suggestion is the echo of an impression that is very general that dairy schools would be the likeliest means of bringing about a speedy improvement in our butter industry. The argument is that improvement abroad has been due to dairy schools. I frankly confess to a belief that the influence of the dairy school, as it is known in Europe, has been over-estimated. While it may be made to take an important place as one of various agencies of improvement, it must needs be only one of several factors. Moreover, our dairy schools, if we have any, will require to be something adapted to our peculiar conditions, not a cheap copy of what exists abroad.

The dairy school in theory, afar off, is a different thing from the dairy school in fact near by. For us to establish in

Canada mere imitations of British or even continental dairy schools would be invite disappointment.

Frequent reference is made in current discussion to Danish dairy schools, and it has been claimed that they have been the cause of the wonderful dairy progress in Denmark. When I questioned Prof. Segeleke, of Copenhagen, about the Danish dairy schools, to my utter astonishment he replied that there were no dairy schools in Denmark! What he meant was that there were no dairy schools, as the term is understood in Great Britain or here. Danish schools are mainly nothing more nor less than the private dairies of the country, utilized for the purpose, where, under the auspices of the Government, pupils are taught dairy work. Every Danish dairy is a possible dairy school. It is not required that the dairy farmer be a graduate of some school or college or a professor. All that Prof. Segeleke requires to know, before sending pupils to a dairy, is the fact that the dairy produces good butter. He has no other standard—no prescribed system. If a dairy is known to produce good butter he sends a pupil or two, and watches results. If the pupil makes progress and becomes a capable butter maker, he continues to send pupils. He has sent pupils to dairies which he himself had never visited, and whose proprietor he had never seen. About 1,000 young men have gone through a practical course in this sort of a dairy school in Denmark. Not all these men have remained in Denmark. Other countries have drained Denmark of these students. The present chief instructor of Finland is Danish taught.

Professor Segeleke mentioned the fact that Mr. Tobieson, official head of the dairy department of Norway (who was present at our interview), was even then advertising for a Danish instructor, and offering more for his services than Denmark was paying. It was the intention of Prof. Segeleke to advise the Government to increase the salaries of Danish instructors.

Again, in these farm "dairy schools" there was little or no theoretical teaching; there was taught only the practical work of the dairy. Prof. Segeleke believed in keeping theory and practice separate. In the dairy only practice was taught; in the schools the teaching was pure theory. There was no distinct dairy class, said Prof. Segeleke, even in agricultural college. The study of milk and its products was simply a part of the theoretical course.

Prof. Segeleke believed that only a limited number of pupils could be engaged in practical dairying in schools. "Where there are too many there was not work enough for them, and so they were taught in idleness, not in industry."

Pupils are taken from six months upwards. They are required to do actual work and they pay for the privilege. Fees are small—say from ten dollars upwards.

From a report by Prof. Long, on "Education in Dairy Farming," it would appear, however, that there are really one or two dairy schools in Denmark—distinct from the farm schools, but they must form a very small proportion of the means of dairy instruction which has been so important a factor in Danish dairying. Prof. Long himself says: "It is a striking fact, borne out by our personal investigations on the spot, and by the voluminous details we have received that there are no large, no expensively conducted schools, no high salaries to officials, and no heavy grants made by Government."

The purpose of these letters does not require that the dairy schools which I visited be described in full detail. Those I visited, especially in Ireland and Sweden, were elaborately equipped, and expensively conducted schools. They are doing a good work, but limited in scope and results, but hardly commensurate with the cost on the Danish basis.

We may, doubtless, learn something from the elaborate dairy school system of Great Britain, and something from