

with us in our competition with European manufactures."

Mr. Willard then spoke of Great Britain as "our principal foreign market" and said she now imports from Holland, 80,000,000 pounds of cheese per annum, being about double the quantity she takes from us. The speaker then referred to the necessity of manufacturing a first class article; *only*, for the British market, and regretted that, in this respect, but little improvement had been made in the United States during the past year. He also spoke of the gradual decline in the quality of the Cheshire cheese, which is now inferior to that from American factories.

After describing the process of manufacture in the principal cheese-making districts of England, as unscientific and outlandish, he said:—"The Cheddar, however, is a very high character of cheese, and commands a high price. Its qualities have not been overrated. These best samples have rarely been equalled, and never surpassed in American dairies. The quantity made is comparatively small. It takes its name from a small village at the foot of the Mendip Hills, in Somerset County, its manufacture there having commenced more than a hundred years ago. Various improvements have been made in the process, until it has been reduced to a system which is at once simple and philosophical. It may be said to be a chemical process, requiring judgment and skill in the management of acids, until the curds have passed through its different stages, and is properly developed by the press. Its leading principles have been understood and practised by our leading cheese-makers, for some years, and it is due to these that our American cheese has been able to obtain so firm a foothold in the English market."

Mr. Willard spoke of the extreme cleanliness pervading every thing and process connected with the English Dairy, and the absence of much of this cleanliness in this country; the fine flavor of much of the English cheese, and the cause of its absence in the American; and after giving a very glowing description of the "Prince Albert Model Farm, and the Royal Dairy," referred at some length to the progress of the "factory system" of this country. The first cheese-factory was erected in Rome, N.Y., in 1851; and at the end of 1866, New York State had more than 500 such factories in operation; and in the Eastern, Western and Middle States, and these Provinces, "we have track of a thousand" others.

The speaker referred to the comparative cost of manufacturing cheese in New York State and in this Province, and dwelt on questions of shipping to Europe; cleanliness in manufacture; kind of

vessels for milk; recent improvements in factory buildings; utilizing whey; styles of cheese, &c., &c. The *Canada Farmer* says:—"Our factory-men who are newly embarked in the business of cheese-making, will do well to heed the counsels tendered them in Mr. Willard's address, especially on the subject of scrupulous cleanliness." The address is well worthy the careful perusal of all interested in cheese-making in Canada.

TECHNICAL EDUCATION.

In the July number, under the heading of "Canada: Her Educational and Industrial Future," we drew attention to the very liberal provision made by the Legislature of the Province of Canada,—now ONTARIO and QUEBEC,—for the rudimentary instruction of all classes of the community, and College and University instruction for those intending to follow the learned professions; and, at the same time, the total absence of any special provision for the education of the working or operative classes, in technical or practical subjects,—and especially for evening CLASS instruction, for youths actually engaged in mechanical or engineering pursuits. Our August and September numbers also contain articles and correspondence on this important subject. We now propose to refer to views held by some of the best scientific journals and practical men of Britain, and to state, shortly, what are some of the features of this system of technical instruction, which we hope to see promoted by the Legislature of this Province. The correctness of the conclusions arrived at by Dr. Lyon Playfair, as given in his letter contained in our July article, having been disputed by some other learned writers, was thus brought under the notice of the Royal Commissioners appointed to inquire into the education of a certain class of schools. The Commissioners, therefore, have made a special report to Her Majesty, in which they say:—

"Our attention has been incidentally called to the evidence considered to be afforded by the International Exhibition at Paris, of the inferior rate of progress recently made in manufacturing and mechanical industry in England, compared with that made in other European countries. It has been stated to us that this alleged inferiority is due in a great measure to the want of technical education, and we have therefore thought it desirable to ascertain from many eminent English jurors in this department whether they agree with this opinion.

"We think it expedient at once to report to your Majesty the answers which we have received to our inquiry on this point. Although they have an obvious bearing on the propriety of encouraging to a large extent the study of physical science in