hands, or in directing the labour of others. Theorists write as if the abolition of the English Corn Laws was to give comfort and abundance to all the working classes, and to the poor of the British Isles. It is however, a great mistake. If all restrictions on trade were done away, and revenue raised by direct taxation this would benefit the labouring classes and poor, certainly, because the payment of this revenue would fall upon the possessors of property and wealth. We see no possibility of a proper and equitable adjustment of this question of free trade, unless it is carried out to the full extent, and it will be for those who introduced the principle, first, to propose means of raising revenue in a way not objectionable. It is absurd to say that the duties on certain articles are merely nominal, and produce no revenue. If they produce no revenue why subject them to the payment of duties? We should never have proposed the recent changes in the Custom House-laws; but now that they have been adopted, we demand in justice that they be still further changed so as to do them away altogether, and allow agriculturists to purchase in as free a market as that in which they have to sell their own products. This is the principle for agriculturists to advocate. It may be thoughts that the state of the poor in the British Isles is a subject we have nothing to do with. We conceive, however, that as a province of the Britsh Empire, we are deeply interested in the matter, particularly as this country is the great outlet for the reception of the surplus population and the poor of the British Isles.

ON THE NECESSITY OF AN IMPROVED SYSTEM OF AGRICULTURAL EDUCATION

TO THE EDITOR OF THE MARK LANE EXPRESS.

Sir,—In the present posture of agricultural affairs in this country, a few observations on the necessity of a more extended education for the agriculturist may not be out of place.

Leaving to your talented and powerful pen, the advocacy of those social rights of the farmer, included under the comprehensive head of "TENANT RIGHTS," I shall endeavour in this letter to shew that the general education of the farmer is not adapted to the present times; and that it is deficient in all those elements of power, which alone can enable the agriculturist fully to cope with the competition to which he will inevitably be exposed.

Though there are many honourable exceptions, yet the generality of farmers are contented if the education of their children enable them, simply to read, write, and cypher; these *operctions* having constituted the staple of the education of the parents themselves. Not one in a hundred thinks that these very studies, though good enough to begin with, are only the means whereby we may acquire an education, and that they do not constitute the education itself. Reading and writing enable us to extend our knowledge; they are new senses given to us. But what would be the use of reading, if not to obtain knowledge? what the use of writing, if not to convey truths, information and advice; these means therefore, to an end, ought not to be taken at more than their proper value, but ought to be estimated in proportion as they give us the opportunity to extend further our researches into the nature of these objects which exist around us. But when do we, in general, find in the education of the agriculturist one particle of information respecting the nature of the soils he works upon, its composition, its chemical and mechanical properties? Where do we find that the nature and constitution of the vegetable kingdom, occupy the agricultural mind? How often and when is inculcated, the necessary conditions for insuring health in domestic animals, or the effects of different kinds of food on the animal frame and constitution?

While, however, it is a matter of lamentation that neither in the education of the young farmer, nor in the practice of the old, is a systematic knowledge of nature brought to bear for the production of his crops, let us turn to the manufacturers, and see if they have been equally remiss, or whether a great lesson may not be learnt from the mode in which the manufacturers have conducted their business, and the vast results they have obtained. Have they been equally with the farmer neglectors of scientific improvements?

On referring to the history of the arts and manufactures of this country for the last half century, we find that there is scarcely a single business which has not received transcendant benefits from the application of mechanical science and chemistry. Irrespective of the discoveries of Watt and Arkwright, the application of chemistry to many operations in the arts is the foundation of the great superiority possessed by the manufacturers of this country over those of her neighbours. In the process of bleaching, for example, the application of a simple chemical discovery, produced the greatest revolution that can well be imagined. It was discovered that a substance called chlorine (contained in chloride of lime) possessed the property of bleaching vegetable colours in a few minutes. The celebrated Professor Copland of Aberdeen, proposed to us chlorine for the bleaching of linen and cotton goods; after meeting with the amount of opposition which new discoveries usually encounter, the new process was universally adopted. By the old method, the goods required from eight to ten months to bleach: they are now bleached in a day. This discovery lies at the foundation of the prosperity of the calico-printing and manufacturers of this country. If the old method had yet to be pursued, it would be impossible to print one hundredth part of the calico now printed, and the price would be indefinitely augmented. The advantages of these improved processes are no doubt well estimated by the ladies, who can obtain printed dresses *far cheaper* and better now than even twenty years since.

In the metallurgic art the use of chemistry has also been great. New ores of metals have been discovered, old *slags* have been remelted, and made to furnish an additional quantity of metal; and methods have been discovered of obtaining metal from ores, which previously had resisted all the old processes.

Dyeing, tanning, sugar refining, and a thousand other operations have received immense aid from chemistry, and shew by their present prosperous condition the value of the assistance so rendered.

How many there are now living who remember the ridicule which was at first excited by the proposal to