the nature of their pursuits, even in this wonderful age of cheap and rapid intercommunication, are necessarily cut off, more or less, from each other, and can only come together at infrequent intervals. It is noteworthy to remark how comparatively rapid has been improvement in agriculture, both in the old world and the new, since the general introduction of the railway, which, with other agencies, has been a chief means of quickening the agricultural mind, not merely by cheapening transit, and in some instances creating new markets, but chiefly by enabling the tillers of the soil to extend the sphere of their observations, of witnessing and comparing different systems of culture, and of obtaining valuable information of a reliable character from each other's observations and different modes of practice. I can remember the time when large numbers of English farmers seldom went beyond the boundary of their own country; some even hardly passed the limits of their own or adjoining parish. What a change has been effected since the introduction of the railway! Farmers may now be seen travelling hundreds of miles to an Exhibition, or in company as members of a Club, paying periodic visits to inspect the practices of distinguished individuals of their craft in different parts of the country. A little perambulating of this sort has a most salutary effect in enlarging the farmer's circle of observation, enabling him to gain new ideas, to break loose from traditional prejudices, and to improve his practice by adapting it to the new lights which science and enlarged experience throw across his path:

Among the causes that have retarded the progress of husbandry may be mentioned the absence of a healthy and efficient agricultural literature. It is true, that a number of treatises on this ancient and indispensable art were written by distinguished men belonging to the two most cultivated nations of antiquity—The Greeks and the Romans—and in such of their works or fragments as have come down to us, we find interspersed not a little that is excellent and practical, from which we might profit in the present day. These writings, however, and even those of a much later date, contain, as Lord Bacon said, "*no principles*," that is, they are, notwithstanding the many valuable and practical directions which they contain, essentially empirical. Indeed, it could not possibly have been otherwise, as agriculture was incapable of being reduced to anything approaching the condition of a science, till chemistry and physiology, at least, assumed a definite form; a result that may be said to be quite recent. Going back to the early part of the present century, when Sir Humphrey Davy delivered his celebrated lectures on agricultural chemistry to the Board of Agriculture in England, and to the report of Baron Liebig, on the same subject, to the British Association for the Advancement of Science, some thirty years ago, we discover the cause of the mighty impulse that has in these days been given to more earnest scientific research, and wider and deeper investigations, so as to put not only the laboratory, but also the printing press into a more active and harmonious operation. In all civilized countries, science, of late, has more or less been brought to bear on the practice of agriculture with beneficial results, and the Reports and Transactions of Agricultural Societies in different parts of the world, together with a legion of periodical journals in this great interest, unmistakably indicate the present healthy state of progress, the future limits of which it is quite impossible to define.

It has been remarked that, as a general rule, whatever is most valuable and enduring is of slow and progressive development. The globe we live on—at least its crust—appears to have been subjected to physical changes through untold and even unimagined periods of duration. Its vegetable productions, the trees of our own forests, for instance, —some will endure for centuries ere they become finally resolved into the mineral and organic constituents of which they are composed. Our Christian civilization has a most interesting and instuctive history to tell; its numerous vicissitudes, sometimes apparently stationary and even retrograding, at others marked by decided if not rapid progress; and yet it has taken nearly nineteen centuries to reach its present imperfect condition. So, again, as regards civil government. What time, talent, statesmanship and philanthropy have been expended in reducing to a practical form the best way of ruling mankind, so as to obtain the legitimate object of all sound legislation, "the greatest happiness of the greatest number." In these matters our knowledge has to be corrected and enlarged by time and experience; and notwithstanding the progress, particularly of late, that has marked the history of many nations, who has the temerity to affirm of any one of them, that it has reached the *ne plus ultra* of perfection? So it may be that the slow advance of agriculture during the past centuries is in accordance with a principle of nature, of a much wider application than is generally perceived.

Whatever causes may have contributed to impede the onward march of agriculture, some more difficult to modify or remove than others, I have long felt a strong conviction that the most formidable obstacle to the general advancement of the art in all ages and countries has been, and unfortunately still is, the low estimation in which it is held, not only by communities, but also by the great mass of its followers themselves;—by this I mean, the little acquisition of an intellectual character which has