

lives,—and third, to Mrs. Chrisolme, daughter of the late Dr. Lee, of London, C. W., by whom he leaves one daughter.

The Colonel's vacant place will long be painfully felt, at several important Boards, as also his absence at the gatherings of many local agricultural societies, to which also he devoted considerable time and attention. Being a good practical farmer himself, and having great experience in organizing and working agricultural societies, that numerous and important portion of the community had great respect for his judgment and ability. With his own hands he at one time or other performed every operation on the farm.

From the chopping and burning of the forest, to the perfectly cleared and level fields, and well stocked pastures of the most advanced colonial husbandry. He was among the first to import and advance the breeding of pure stock, of the various kinds, which are now such striking characteristics of the advanced state of Canadian agriculture.

Mr. Thomson, at various times, undertook large contracts on several public works of the Province, amongst which may be mentioned the Rideau Canal, the Credit Harbour, and the Welland Canal, all of which were executed faithfully and satisfactorily.

The writer of this hasty and imperfect sketch of the life and character of Mr. Thomson, whose intimate friendship he enjoyed for nearly eighteen years, would direct the minds of bereaved relatives and sorrowing friends, under so solemn and sudden a visitation, to the hopes and consolations of our common Christianity. Mr. Thomson was an attached member of the Church of Scotland, and occupied an important position in that branch of the British Church in Canada. He took an active part in the establishment of Queen's College University at Kingston, in connection with that body, and was for some years one of the trustees of the institution. He was also for many years a Vice-President of the Upper Canada Bible Society. He closed a long, exemplary and most useful life, suddenly, but we cannot say prematurely. His work was done, and he breathed his last, it may be said, while on his way to perform a public duty. A long train of appreciating and sorrowing friends followed his remains to the grave, and deposited them in a well-grounded hope of a blessed immortality.

### "Agricultural Education."

THE above is the title of a small volume recently published by Longman & Co., London, and containing a series of lectures delivered at the Agricultural College, Cirencester, England, by the several professors connected with that institution. This little work is designed as an answer to the question, "What constitutes a sound Agricultural Education?" To this enquiry, these lectures furnish a very full and comprehensive reply.

The distinction of originating the first establishment for imparting a special education for agricultural pursuits, belongs to Switzerland. The agricultural school of Hofwyl, at which over 300 pupils were educated, was founded by Fellenberg, in 1799. Since then, numerous institutions have sprung up on the continent of Europe, and in France there are several supported by the State. Throughout Prussia, there is scarcely a province that does not boast its agricultural school, and more than one, and, indeed, dispersed over Germany, as well as Russia, are educational institutions, directly under the supervision and support of the State, in all of which, with slight differences of detail, agriculture is practically and theoretically taught. In Ireland, during late years, a highly successful system has been introduced by the Commissioners of National Education and at the present day, there are no less than 166 farm schools, with land attached, varying from 2 to 150 acres in extent, on that island. England has altogether been distanced in this race of improvement, and even at the present time cannot boast of a State institution

of the kind. For the College of Cirencester, to the students of which the lectures under notice were delivered, owes its origin in 1815, and its support since then, entirely to private enterprise. The history of this Institution has been one of continued usefulness and prosperity; and the farm attached, which contains 500 acres, has acquired a high reputation among home agriculturists, and is in every way prosperous.

The small volume before us contains six elementary lectures, delivered to the young men attending this college, at the beginning of the term of 1863. As might be expected from an introductory course, the scope of the lectures is not extended to practical details, but confined to a statement of the broad principles by which the agriculturist must be guided, if he expects success to reward his exertions. Beyond the attainment of this individual success, however, the question of education, as applied to farming, is shown to have a wider and more important application; for it is now admitted, by the most thoughtful and enlightened minds, "that the continued prosperity of a nation depends mainly on the condition of its agriculture." Impressed with this conviction, we make no apology for inviting the attention of our readers to these lectures.

It is, perhaps, hardly necessary to refer to the causes that have operated to attract attention to the expediency of having a special education connected with farming pursuits. The mere influence of increasing population, necessarily gives an impulse to the advance of agriculture, and the ground of a more exact inquiry into its guiding principles, has been furnished by the spread of intelligence, and the rapid advance made by other sciences, on which all true agriculture must be founded. At the same time, the increasing popularity of farming as a pursuit, has of late years drawn a more enlightened class into its ranks, while the spread of publications connected with the subject, the formation of boards and societies for its promotion, and the general activity of discussion which has ensued, have all tended to draw towards it an amount of attention heretofore unknown. It is painful to observe, in spite of all these combined influences, that Canadian farmers, in too many instances, join the march of improvement with extreme reluctance, and at a snail's pace. With some notable exceptions here and there, which gladden the heart, the ancient strongholds of routine stoutly maintain. The old-fashioned, now and ever shall be, practical English farmer, still has representatives in Canada, and the antiquated idea that less information and intelligence are required for agriculture, than for any other pursuit, still has its credulous disciples amongst us. By this class, any mention of science, requiring thought and reflection, is dismissed as "mere theory," which, being the opposite of practice, must of course be worthless—as it knowledge were a burden, and weakened the strong arm, or impaired the keen eye!

At the same time, this supposed monopoly of practical knowledge, by the unread agriculturist, is purely imaginary, and the very opposite of truth. Every profession in existence, at some time of its history, has had to defend itself from the same absurd supposition. Of course "in the infancy of every art, practice necessarily precedes science. To do, comes before to know; and in this way the parent has been enabled to teach the child, though he himself had worked out his own knowledge without the aid of a teacher." Now, the progress made in agriculture or any other art, depends on the sciences which govern it. And "all the accidents of natural circumstances, under which it is pursued, however varied in appearance, are equally subordinate to natural laws, which it is the province of science to unfold." To persist, therefore, in a course of mere "routine" farming, with the soil half tilled, the same seed sown, and the same crops following each other, year after year, is practically to deny the value of the aggregate experience of men of similar pursuits, and ignore the progress of science and improvement.

The key-note of the whole subject is struck by one of the lecturers before us, in the following words:—"The grand aim of the agriculturist, is to form the largest quantity and the best quality of food, vegetable and animal, at the least cost, consistent with the permanent good condition of the land." Whilst every

agriculturist will readily endorse the former part of this self-evident truth; there are too many who practically forget that "the permanent good condition of the soil" is of any importance. They forget that "there is no plant which spares the ground, and none which enriches it—that the success of a second crop depends upon the previous one—and that it is by no means a matter of indifference in what order plants are cultivated." The art of cultivation is not, as a casual observer might imagine, simply mechanical. Although the turning and breaking of the soil, the scattering of the seed, and the harvesting of the ripened crop, are works of bodily exertion, going on from year to year, and demanding the lowest exercise of reason; yet the occurrence in every climate, of years of deficient produce through the mere influence of seasons, and the gradual exhaustion of the soil by a continual repetition of the same crop, through neglecting to restore the elements of fertility, render unusual remedies and precautions necessary, which it is the legitimate province of science to unfold. No language is more familiar to the farmer than this. Every respectable journal of agriculture, like the CANADA FARMER, abounds with practical suggestions, (see CANADA FARMER, vol. I. p. 81,) founded on science and experience, to assist the agriculturist in restoring the elements of productiveness to exhausted soil; while, at the same time, they point out methods of manuring and rotations of crops, to avert the ruinous consequences which inevitably follow bad farming. In a field so wide as this, embracing every variety of soil, and diversity of season and climate, it would be unreasonable to expect perfect unanimity in the views of all writers on the subject; and farmers, too generally overlook this consideration when they sweepingly denounce "book-farming." They should not forget that "there is still a great extent of variety, uncertainty, and inexactness in the experience of the farmer, and it would be no proof of the efficiency of the teacher, or of the excellence of a plan of teaching, that it pretended to uniformity, consistency, and precision."

Perhaps we cannot more appropriately close our remarks, than by giving our readers an abstract, which must necessarily be brief, of the methods so successfully pursued on the Cirencester College farm. It is necessary to premise that the soil is very variable and unequal in its productive qualities; and that the system of management adopted is executed with the greatest vigilance and care. On the better portion of the land the Norfolk four-course system is followed, as far as practicable. Beans follow wheat, whilst on the lighter land, peas take the place of a root crop. By this course, an interval of six years occurs between the clover crop, and in these days of clover sickness this is desirable. In the management of the poorer soils the custom of the Cotswold farmers is not ignored—to suffer the clover plant to remain a second year, thereby obtaining a large breadth of valuable sheep food, and causing a saving of labour. The cultivation of the land is regularly and systematically carried out. No sooner is the wheat removed from the stubble than the plough is set to work, tearing it up to a depth of 12 or 14 inches. The following is a fair statement of the proportions and description of crop grown annually upon this farm:

Wheat, after clover, 80 to 120 acres. manured before spring, 8 tons.

Wheat, after turnips, 20 acres: corn spent on lands.

Barley, after turnips, 80 to 100 acres: corn spent on lands.

Oats, after turnips, 15 to 20 acres: corn spent on lands.

Beans, after wheat, 10 to 20 acres: manured in winter, 12 tons.

Peas, after wheat, 10 to 15 acres: manured sometimes, 10 tons.

Early turnips or rape, 15 to 20 acres: artificial manure, 3 cwt.

Grey top turnips, 10 acres: artificial manure, 3 cwt.

Mangold, 15 acres: manured with dung, 10 tons; remainder artificial manure, 3 cwt.

Vetches and rye, 15 acres: manured 10 tons.

The custom has been to top dress the wheat in early spring with 1½ cwt. or more of nitrate of soda, a treatment which has considerably increased the yield; while the cleansing of both cereals and roots is vigorously persevered in, whenever it is possible to do so.

POMOLOGICAL CONVENTION.—The Montreal Horticultural Society, proposes holding a Pomological Convention, during the Exhibition week of the Lower Canada Agricultural Board. They propose inviting all the Horticultural Societies throughout the Province to unite in making an Exhibition of fruit. We wish them hearty success in this enterprise, and hope the Societies of Canada West will give them countenance and support.