

and gave to us, amid our dire perils and faithful contendings, the strengthening consciousness of a just quarrel. In dealing with these recusants, we used ordinarily to divide our forces into two bodies, the larger portion of the party filling their pockets with stones, and ranging themselves on some point of vantage, such as the pier head; and the smaller stealing down as near the boat as possible, and mixing themselves up with the purchasers of the peats. We then, after due warning given, opened fire upon the boatmen; and, when the pebbles were hopping about them like hailstones, the boys below commonly succeeded in securing, under cover of the fire, the desired boathook or oar. And such were the ordinary circumstances and details of this piece of Spartan education; of which a townsman has told me he was strongly reminded when boarding, on one occasion, under cover of a well-sustained discharge of musketry, the vessel of an enemy that had been stranded on the shores of Berbice.

JOURNAL OF EDUCATION,

Upper Canada.

TORONTO: OCTOBER, 1855.

*. Parties in correspondence with the Educational Department will please quote the number and date of any previous letters to which they may have occasion to refer, as it is extremely difficult for the Department to keep trace of isolated cases, whereas many letters are received (nearly 500 per month) on various subjects.

THE EDUCATIONAL FEATURES OF THE LATE PROVINCIAL AGRICULTURAL EXHIBITION.

We believe it quite to be within the scope of this *Journal* to trace out the Educational features of the recent Agricultural Exhibition at Cobourg. It is an highly gratifying circumstance to notice that the Representative of Her Majesty appreciates the exertions of the people of Upper Canada in placing their system of public instruction upon a broad and ample basis. In a reply to the address of the Agricultural Association, His Excellency expressed his belief that our "School and Municipal systems may serve as models for longer settled countries;" and in his reply to a toast given at a dinner in London, he is reported to have said,—"I look forward to a great and glorious future for Upper Canada. With its love for law and order, adherence to constitutional principles, its fertility of soil, its railways and lakes bringing down the produce of the country, and with a good government, it is your own fault if you are not a great country some day. But to yourselves you must trust; and I pray earnestly that this progress may continue while I am among you. It is upon your system of education, and your municipal institutions, and public works you have to rely." The same testimony is borne more at length by the President of the Association, David Christie, Esquire, in his Annual Address before that body. He said "The youth of Canada are enjoying the blessings of a Common School System, which is the glory of our land and the honor and pillar of the state."

The warm interest which was felt in the success of our Educational system by His Excellency's distinguished predecessor Lord Elgin, will long be remembered by the Canadian people. No man valued more highly, in a national point of view, than he did, the maintenance of an effective system of public instruction. He judged rightly in placing it in the van of all the social interests of the State, which it is the duty of the Legislature and Government to sustain and promote. We are happy to observe that the same patriotic policy has been pursued, to some extent, by Sir Edmund Head, and that public

men of all parties unite in maintaining our public school system, and with pride refer to its successful operation.

From Mr. Christie's address, delivered before the Agricultural Association, we select the following extracts, in which the President refers in striking and forcible language to the importance of "Agricultural Education as the great instrument in promoting our prosperity as a people. He observed:

Men generally assent to the proposition that "Knowledge is Power," yet it is a fact that Agriculturists, as a body, do not act on this principle; I mean in so far as regards the *Science of Agriculture*. * *

It is a very common opinion that education unfits men for labor, and that the only man who will assiduously persevere in it is the ignorant and illiterate. * * *

Nothing can be more pernicious in practice than this false estimate of the effect of education. The mass of Canadian Farmers till their own lands, and the labor is chiefly performed by their own families. Should they train their families on the principle that labor and education are incompatible, how fearful would soon be the result as respects our social and industrial position? Fortunately, the youth of Canada are enjoying the blessing of a Common School system, which is the glory of our land, and the honor and pillar of the State. They cannot therefore, be illiterate. But they do not receive that kind of education which will fit them for the proper exercise of the profession of Agriculture. Here lies the whole cause of the difficulty. * * *

Where, then, is the remedy? The work must begin with yourselves. You have, by your apathy, sanctioned the degradation of your profession. You have permitted other men to form a low estimate of it, and to usurp that position which, in common with them, you should occupy. What secular pursuit is superior to yours, either in point of honour or usefulness? yet by many it is not so deemed. I have heard men, from whose education better things might have been expected, talk contemptuously of the men who wear homespun. Make the frieze coats respected. Don't think and say that labour and education are incompatible. Teach your young men that they ought to be associated. Give your sons not merely good common school instruction, but a liberal and *thoroughly scientific agricultural education*. * * *

If the next generation of farmers could be well educated in their profession, it is almost impossible to estimate the vast change which would take place in the world's progress. What is urged is,—education, in the true and proper sense of the term, namely, the thorough training of the mind, with a special reference to the practice of agriculture. It includes the theory and practice of the profession, —neither separately, but both combined. Theory alone cannot make a man a good farmer. * * *

Science must assist him, by telling him what sustenance each kind of crop requires—whether it be organic or inorganic; and, from a careful analysis of the soil, whether such substances be among its component parts, and in the necessary proportions. No amount of merely practical skill can, in all cases, indicate this; science alone can determine it. How often is the merely practical man bitterly disappointed, when, after preparing a field in his usual way, he finds that the crop falls far short of his expectations? Such failures cannot be accounted for by any incidental and obvious causes; there is the want of *something* to complete the amount and kind of food necessary for the crop—but he cannot tell what that want of *something* is. Here science must aid him, or he will be left to grope in the darkness and mist of uncertainty. We may learn much from the book of experience; but its teachings are vague and uncertain, unless we are somewhat acquainted with the laws which regulate the universe. A physician, practising his profession in ignorance of general principles, and trusting to his experience, might avoid doing much mischief in ordinary cases; but in those of complexity and peril, he would be utterly helpless. The like case is that of the farmer who has no scientific knowledge. He may indeed wish to read correctly the laws of the practical world, but this he cannot do accurately without science. This is the difference between the empirical and the scientific physiologist. The empiric is contented with observing and recording the resulting fact; while the scientific physiologist must ascertain the manner in which physiological laws operate. The attention of the one is directed to results in the improvement of his art; and that of the other to the enlargement of his stock of knowledge. There is a strong tendency in those two methods to combine and unite in one grand result. That they do so combine is unquestionably true. All science is true; and the results of the operation of the great principles which it teaches must be exactly in accordance with it. Now, the object of the science of agriculture is to construct a scheme of knowledge which shall not only explain results, but be a guide to the evolution of correct systematic practice. This identity of result is not merely important as respects the discoverers and im-