

## TECHNICAL EDUCATION.

The meeting to discuss technical education which was held in the Rotunda of the Toronto Board of Trade Building on June 7th brought out very clearly that the subject is one of far reaching importance.

Whatever may be the fate of the present Peace Conference it is not upon war that the mind of the nations is now set. The struggle for supremacy is a commercial struggle and the hero of this struggle, the skilled artisan, is an object of much attention in educational circles.

The national bill for technical training in England is \$7,500,000 per annum besides the amounts paid by municipalities. Belgium pays even more highly in proportion to size and population, but as a consequence is able to support a population greater than that of all Canada in an area less than that of Lake Ontario. We on the contrary have already sent to the United States, because we have no work for them to do, a population sufficient for the settlement of a country of the size of Belgium; and this is not because we have not the raw material for manufactures, but because we cannot work it. It is not want of capital that hinders us, for capital is always on the lookout for opportunities. Nor is it a market that is wanting, for the world is now a market to those who have anything to offer it; and that we have, if we are prepared to employ the young men we now send away, in manufacturing the raw material we now export into the manufactured articles we now import. But there is one proviso—that our standard of excellence is the world's standard, the standard of the best markets. We must enter into the modern game of competition of products which involves high training for the workmen who produce.

This change that has come over the world, has brought about a change in the conception of education and its application. It is not long since education was confined to men of leisure and the professions. The education which consisted entirely in cultivating the imagination and the capacity for abstract thought, or as its advocates would have said, to fill the mind with "beautiful images" and give it "just ideas," was adapted to the purpose it served of cultivating the mind to perceive and understand. It was training with the idea of culture. The process of culture may be described as letting the mind examine what men have thought, and what they have done merely for the sake of knowing what interested them, not for the sake of devoting ourselves to the same subjects of thought; that the mind, from the habit of placing itself at the point of view of many men and of many generations of men, may acquire that flexibility which is necessary to enable it to take a sound view in the new circumstances of life which present themselves. The process of culture is long and, though the result is valuable, it is only in some walks of life, and when it has been highly developed that its value can be reckoned in money. For this reason education has with some justice been considered as making rather for the unsettling than for the real good of persons engaged in such pursuits as agriculture or the mechanical callings. Indeed the result has shown that the too exclusive study of literature has indisposed young men for active pursuits in the past; they have flocked from school, not back to the farms, but to the cities, to take up the professions or teaching, or at least some clerkship which will give them a berth in town away from the drudgery of the farm yard.

This is the natural effect of a system of education which pays almost exclusive attention to cultivating the ideal faculties to the exclusion of the practical, which arouses the imagination in a direction foreign to that which constitutes the daily effort of practical life. It is an old complaint that the young man, who is ready to

walk a thousand miles in a thousand hours, faints at the sight of a wood pile. At the bottom of our hearts we know that our sympathies are with him. Feats of physical strength or endurance appeal to our imagination. We do not abhor the reduction of the wood pile because it is useful, but because it is stupid. If the young man were trained to apply mechanics to this and to other operations of the kind, to accomplish them by thought and the skilled use of his hands, instead of by day in and day out drudgery, the life on the farm, and other varieties of the "practical" life would form a field for the application of what has called out his mental powers and interests his mind. All students of our public schools are likely to be more useful and happier for some technical training, and it would be well if our public schools tended this way in the closing years of their course, both for positive training of those who want it and will have no other chance to get it, and also that any natural tendency to mechanics in a youth may have its chance to develop, instead of the literary side of education being pressed at this critical juncture until there is one more young man who finds himself fitted only for the professions. If the mechanical bent makes itself felt, there should be technical schools which will take, for such as feel this bent, the place of the High School or Collegiate Institute. Technical Schools will be of course well equipped government schools, designed to give the students such scientific and mathematical training, such knowledge of mechanical forces and of machinery, such manual dexterity and skill in drawing as the language of the mechanical arts, that they will be fitted to apply themselves as intelligent workmen, in whatever industrial operation they may find employment.

Here will be supplied one part of the necessary equipment for manufacturing our own raw material. Technical education will not alone start factories, but it is a necessary condition of their success and will contribute to their institution. There is much manufacturing to be done before this country can be said to be doing the best it can with its opportunities. But this is also a farming country and agriculture wants a hand. It is by giving such a turn as this to education, that it will get what it wants. Farming is a scientific and mechanical operation. In farming districts the technical part of the public school work may have a special bearing on agriculture, indeed the Education Department of Ontario has already prescribed such work as optional for country districts, and promises to make it compulsory. Here then is briefly described what, to judge from the discussion at the meeting in Toronto, will be the recommendations of the committee appointed on that occasion. It will deal with the education necessary for artisans and working people. Masters of skilled labor, engineers who direct it, will need the higher training which is to be obtained at the School of Practical Science in Toronto, but for the rank and file all that is needed and indeed all that can be accomplished, is the elements.

In thus giving an industrial cast to the education, and therefore to the thought of the country, not however to the entire exclusion of literary culture, we shall be simply falling in with the spirit of our generation. The field of thought in the early days of learning was chiefly philosophical, later it was artistic and literary, in the present century it has been scientific, and we are now reaping the results in an exaltation of the engineer, the man who applies science to industrial and commercial undertakings. He has hold of our imaginations. He is the artist of this age, and the constant theme of Rudyard Kipling, the writer of this generation. Whether Mr. Kipling's writings will live or not is being discussed, but there is no question about their being alive now. The writer who has found poetry in railroading, freight steamers, engineering operations and the like, is the poet of this age. We read with pleasure because the ideas are our own ideas, though we had not realized it before. The approval of our generation is bestowed most readily upon those who subdue the earth to our use, and service in that way is coming to be regarded as the most honourable service.