

Mackenzie, and hence the change of leadership. It will, however, be found that Mr. Blake is committed to the expenditure almost if not quite as much as Mr. Mackenzie. We join in the general opinion of the public that Mr. Mackenzie is well entitled to the commendation offered to him by Sir John A. Macdonald.

THE HARBOR COMMISSIONERS.

It might be inferred from some of the notices of recent proceedings regarding the reduction of the port charges at Montreal that there were serious differences of opinion on the subject between the Harbor Commissioners and the Board of Trade; indeed it has been insinuated that the former have acted in a disingenuous manner. It is most important that, under existing circumstances, the people of Montreal should act in unison. That the Harbor Commissioners are ready and anxious to do all in their power to induce the Government to assume the expenditure in deepening the channel of the St. Lawrence, there can be no room to doubt, and that is the most that any one expects can or will be done. It seems to be admitted that, nothing can be effected in the way of relieving Montreal of this burden during the present Session, and it seems to us to follow as a matter of course that it is not in the power of the Harbor Commissioners to make any important reduction in the charges on which they rely for meeting the interest on the outstanding debentures. It may be true that legally they have the power, with the consent of the Government, to reduce the dues, but we apprehend that, in asking such consent, they would be bound to show that any amended tariff was adequate to meet the interest which is guaranteed by the Government. It is clear that the sanction of Parliament cannot be obtained this year to the assumption of the debt, and we are, therefore, unable to imagine what the Commissioners can do under the circumstances. It would be much to be regretted if any conflict of opinion should arise when all have a common interest in the success of the movement. We deem it only an act of justice to Mr. Cramp, the late chairman of the Harbor Commissioners, to state that on more than one occasion he pressed the subject on the attention of the late Government.

WHAT EDUCATION IS OF MOST VALUE.

[FOURTEENTH ARTICLE]

Thus far our question has been the worth of knowledge of this or that kind

for purposes of guidance: we have now to judge the relative values of different kinds of knowledge for the purposes of discipline. This division of our subject we are obliged to treat with comparative brevity; and happily no very lengthened treatment of it is needed. Having found what is best for the one end, we have by implication found what is best for the other. We may be quite sure that the acquirement of those classes of facts which are most useful for regulating conduct involves a mental exercise best fitted for strengthening the faculties. It would be utterly contrary to the beautiful economy of nature if one kind of culture were needed for the gaining of information and another kind were needed as a mental gymnastic. Everywhere throughout creation we find faculties developed through the performance of those functions which it is their office to perform, not through the performance of artificial exercises devised to fit them for these functions. The Indian acquires the swiftness and agility which makes him a successful hunter by the actual pursuit of animals; and by the miscellaneous activities of his life he gains a better balance for physical powers than gymnastics ever give. Thus it is also with the accountant, whose daily practice enables him to add up several columns of figures simultaneously. We find that the highest power of a faculty results from the discharge of those duties which the conditions of life require it to discharge; and we may be certain, *a priori*, that the same law holds throughout education. The education of most value for guidance must at the same time be the education of most value for discipline. Let us consider the evidence.

One of the chief advantages claimed for the study of the dead languages, which forms so prominent a feature in the ordinary curriculum, is that the memory is thereby strengthened. And it is apparently assumed that this is an advantage peculiar to the study of words. But the truth is that the sciences afford far wider fields for the exercise of memory. It is no slight task to remember all the facts ascertained respecting our solar system; much more to remember all that is known concerning the structure of our galaxy. The new compounds which chemistry daily accumulates are so numerous that few, save professors, know the names of them all; and to recollect the atomic constitutions and affinities of all these compounds is scarcely possible without making chemistry the occupation of life. In the enormous mass of phenomena presented by the Earth's crust, and in the still more enormous mass of phenomena

presented by the fossils it contains, there is matter which it takes the geological student years of application to master. In each leading division of physics—sound, heat, light, electricity—the facts are numerous enough to alarm any one proposing to learn them all.

And when we pass to the organic sciences, the effort of memory required becomes still greater. In human anatomy alone the quantity of detail is so great that the young surgeon has commonly to get it up half a dozen times before he can permanently retain it. The number of species of plants which botanists distinguish amounts to some 320,000; while the varied forms of animal life with which the zoologist deals are estimated at some two millions. So vast is the accumulation of facts which men of science have before them that only by dividing and sub-dividing their labors can they deal with it. Surely, then, science, cultivated even to a very moderate extent, affords adequate exercise for memory. To say the least, it involves quite as good a training for this faculty as language does.

At the same time science has an immense superiority in the kind of memory it cultivates. In the acquirement of a language the connections of ideas to be established in the mind correspond to facts that are in a great measure accidental, whereas in the acquirement of science the connections of ideas correspond to facts that are mostly necessary. It is true that the relations of words to their meaning is in one sense natural, and that the genesis of these relations may be traced back a certain distance—though very rarely to the beginning (to which let us add the remark that the laws of this genesis form a branch of mental science—the science of philology). But since it will not be contended that, in the acquisition of languages, as ordinarily carried on, these natural relations between words and their meanings are habitually traced, and the laws regulating them explained; it must be admitted that they are commonly learned as fortuitous relations. On the other hand, the relations which science presents are causal relations; and, when properly taught, are understood as such. Instead of being practically accidental, they are necessary; and, as such, give exercise to the reasoning faculties. While language familiarizes with non-rational relations, science familiarizes with rational relations; while the one exercises memory only, the other exercises both memory and understanding.

The Valleyfield strikers have, in part, resumed work at the old rates.