



THE JOURNAL OF EDUCATION

Devoted to Education, Literature, Science, and the Arts.

Volume XIV.

Quebec, Province of Quebec, April, 1870.

No. 4.

TABLE OF CONTENTS

<p>The Teaching of Science..... 49</p> <p>Give Your Boys a Trade..... 50</p> <p>Russian School-Mistresses..... 51</p> <p>Teachers' Studies..... 52</p> <p>Education of Girls..... 52</p> <p>The Science of Going up Stairs..... 53</p> <p>Professor Tyndall on Haze and Dust..... 54</p> <p>Indian Costumes and Material..... 55</p> <p>Official Notices: Appointments, — School Commissioners..... 56</p> <p>School Trustee..... 56</p> <p>Separation and Annexation..... 56</p> <p>Diplomas Granted by Boards of Examiners..... 56</p> <p>Editorial Department: Filling up Vacancies in School Boards..... 56</p> <p>McGill University, Medical Faculty..... 57</p>	<p>Annual Meeting of the McGill Normal School Literary Association, Montreal..... 60</p> <p>School of Art and Design, Montreal..... 60</p> <p>Books and Exchanges Received..... 60</p> <p>Miscellany: Education..... 61</p> <p>Literature..... 62</p> <p>Science..... 62</p> <p>Art..... 63</p> <p>Discoveries and Inventions..... 64</p> <p>Meteorology..... 64</p> <p>Advertisements: Wants..... 64</p> <p>The Dramatic Reader..... 64</p> <p>Lovell's Dominion Directory..... 64</p> <p>Official Tables: Apportionment of the Supplementary Grant to Poor School Municipalities for 1869..... 65</p>
---	---

The Teaching of Science.

In a volume of essays lately published, says the *American Educational Monthly*, — in London under the general title, "Woman's Work and Woman's Culture," we find one, contributed by Mr. James Stewart of Oxford from which we extract the following:

In this Essay there are three things that fall to be considered. The first is, What it is that we wish to teach when we say, let us teach Science to women; and the second is, How we are to teach it; and the third is, Why we are to teach it? I shall not consider these three things separately, because each involves the other. At the beginning too, I should like to say, that when I speak of teaching Science, I speak of teaching it not to the few who may extend its boundaries, but to the many, who may learn its lessons. To those few, Nature, I dare say, is the best instructor, and her own philosophy will plead her own cause. But for the mass of people there is a great benefit to be gained from the study of Science. Science teaches us to look outside of ourselves, and to look at things; and it teaches us that the foundation of all true argument is experiment, whereby I mean a previous knowledge of the things about which we argue. And besides teaching us to look outside of ourselves, it teaches us to think for ourselves. One of the true objects of all education is to teach people to think for themselves. And there is perhaps nothing more fitted for this end than Science, and especially for that department of it which is called Natural Philosophy. For to think well we

must think clearly. What Education has to do is to engender the habit of forming clear and distinct notions of things, and above all, of clearly seeing the distinction between these things themselves and our notions of them. The process of acquiring clear and distinct notions is of as much importance as having them. And to reap the benefit of that process we each must go through it for ourselves. In getting into the habit of going through such a process for ourselves we may be helped in three ways. We may be taught by example what the holding of a clear and distinct notion is; we may learn to some extent the successive steps by which some such have been elicited out of confusion; and we may be furnished with some materials from which to elicit some clear and distinct notions for ourselves. All these three ends are well accomplished by the teaching of Natural Philosophy, or, as it is otherwise called, Physical Science; on account of which preeminent union of these three qualities there is nothing which can form a fitter introduction to a course of Education, nor anything therefore with which those, whose education like that of women has been somewhat backward, can better begin. The only objection which might be anticipated to such a subject is that it might be too difficult. But everything which is clear and distinct is easy; it is obscurity only that makes difficulty. Nor need any be afraid of the name Physical Science—Astronomy, Light, Heat, and the like. It is certain that these sciences, in so far as they have been scientifically treated, have been usually involved in the language of Mathematics. But there is no need for that. It is very fortunate that Science has had Mathematics for its handmaid, for therein is the best pioneer and the best registrar of its discoveries; but it is unfortunate for the general scientific education of the world that it has usually refused the service of all other ministers. It is no more necessary to express the great truths of these matters in mathematical language than in the French or in the Greek language; and when the whole is put in our own homely language, perhaps then better than at any other time are we enabled to see how grandly immutable are the facts we have to deal with as compared with the means by which we may happen to express them. For though mathematical language entails an accuracy of expression, it is by no means co-ordinate therewith. Certainly I believe, though there be notable instances to the contrary, that yet scientific eminence is seldom attained by those ignorant of the Mathematics; and