

while the professional work of such men would itself tend to increase the demand.

It is certain, however, that if the Government of this country could be induced to sustain a system of elementary technical schools similar to those of the Department of Science and Art in England, or similar to those of Prussia, a double benefit would be secured, in so far as the higher science education is concerned, in finding occupation as teachers of science for some of the graduates, and in giving the necessary preliminary training to students. At the same time the effects of such schools would be of incalculable importance to the working classes of this country. Local benefactors might do something for such schools; but for a proper system the Legislature must intervene, and it can secure the end only by payment for results on the English system, under proper arrangements for examination and inspection.

CONCLUSION.

In conclusion, I may remind some of my audience and inform others, that the views advanced in this lecture, and which are now sweeping on in a resistless tide in every civilized country, are not new with me. When, in 1855, I entered with much diffidence on the arduous and then not very hopeful office which I now have the honor to occupy, I held views on this subject as advanced as those which I hold now, and saw quite as clearly as at this moment, the improvement and extension of science education to be the greatest educational movement of our time. I had then studied the reports of the University Commissioners in England, and had read the admirable exposure of the evils of the existing systems made by Sir Charles Lyell. I was familiar with the details of the Prussian system. I had recently been engaged, with several leading educationists, under the presidency of Sir Edmund Head, in the organization of a scheme for the reform of the University of New Brunswick. I had just returned from conference with leading educational and scientific men in England and the United States. I was strongly impressed with the necessity of science education in this country, zealous for its introduction here, and hopeful that, if any kind of education would commend itself to the good sense of a progressive, commercial community, this would.

Confessing in my inaugural address that I came among you "in the hope of promoting the study of the subjects to which I had devoted myself, and at the same time advancing the cause of education," I maintained that the spirit now abroad with regard to University reform "had for its object to make the carefully elaborated learning of all the great academical centres become more fully than it has yet been the principal moving power in the progress of practical science, of useful art and of popular education," and I specially indicated the institution of schools of civil and mining engineering and of scientific agriculture, as enterprises which should be at once entered upon.

When I look back on the hopes and struggles of those earlier years, though I entertain a feeling of profound thankfulness to God for the measure of success and prosperity which has attended this University, and though I am most grateful to its many benefactors, I cannot forget the disappointment of my own hopes. Much has been done for general education, and McGill College has grown to be a comparatively great and prosperous institution. But all that I have done toward this any one could have done. The one thing that I could have done, for which I was willing to sacrifice all that I could have gained as an original worker in Geology, and which would have been of more real importance, not only to Montreal, but to all this great country from Red River to Newfoundland, than all the rest, has not been done. I confess I often almost sink under the despairing feeling that it will not be done while I live; and that I may never have the opportunity of doing for this community the only great service that I believe myself competent to confer upon it.

Yet I know that much good preliminary work has been done, that material has been accumulated and tastes for science created; and I am reluctant to abandon the hope that I may yet see in Montreal a thoroughly equipped Institution, in which any young man, with the requisite ability and preliminary education, may learn the scientific facts and principles, and receive the training in scientific methods, necessary to qualify him for mining, metallurgy, assaying and engineering, agriculture, chemical manufactures, or other applications of science to art. Until this can be realized, I shall feel that the work of my life has been only very partially and imperfectly successful; and I shall know that this city has not taken the means to prepare itself fully for that greatness which its position and advantages mark out for it, but which it cannot attain, except as the educated metropolis of an educated country—educated not merely in general learning and literature, but in that science which is power, because it wields the might of those forces which are the material expressions of the power of the Almighty Worker.

EXPERIMENTS have been made at the Hotel-Dieu Hospital, Paris, of an electrical heating apparatus, the trial of which has been successful that it is proposed to warm all the other hospitals of Paris with it, instead of coal.

PRONUNCIATION OF THE LATIN AND GREEK.

THERE is at least a hopeful prospect of a reformation in the school pronunciation of Latin and Greek. For more than a century and a half now, most Englishmen "have applied to the Latin tongue the principles which regulate the pronunciation of their own." Why the same principles (!) have not been applied as fully to the Greek language; why they have not been applied at all in the case of the Hebrew and other ancient tongues; why they might not almost as well be resorted to in the case of Italian and French, are questions which it is useless to ask. Let one pronounce five lines of French as if it were English, or five lines of English as French, and he will see the appropriateness of applying to one language the orthoepic and accentual rules of another.

Latin used to be a possible means of intercourse between scholars who were mutually ignorant of each other's native tongue. But now an American, however proficient in the language of Cicero, is unable to understand, or make himself understood, by a German or Frenchman, if Latin is the medium of conversation. It was not always thus with the English-speaking people, though the corruption dates its beginnings back of Milton. It will be remembered that he advises a "distinct and clear pronunciation, as near as possible to the Italian, especially in the vowels." "To smatter Latin with an English tongue," he says, "is as ill a hearing as Law-French." Phillips, who taught Latin to princes in the middle of the last century, complains of their calling *amo*, *emo*; and *imo*, *aimo*; but adds that "many gentlemen in England still speak Latin like men, *ore rotundo*." The correct pronunciation of the Latin vowels was taught in Winchester College until about 1750 when they concluded it was best to go wrong with the rest, of the nation. Ainsworth, the Latin lexicographer, says in a preface, that "foreigners hold us little better than barbarians in many parts of pronunciation." He finds especial fault with the prevalent neglect of the quantity of vowels, and the "depraved sound" of C and G before e, i, etc. American school editions of his work, however, suppress everything which says on these matters. This suppression or misrepresentation of the views of eminent scholars upon this point is common to nearly all the Atlantic editions of European grammars and dictionaries. They are, almost without exception, "doctored" to suit this latitude, and the original truth is not in them.

Our readers will remember that the learned committee of the Philological Convention, which met at Poughkeepsie in the summer of 1869, recommended the use of the so-called continental sounds of the vowels in Greek and Latin. The men who stand behind this sensible recommendation are among the foremost of American linguists. And now we are rejoiced to see their advice reinforced by that of Harvard University, which favors the use of the following sounds in Latin: *a* as in *father*, *e* like *a* in *fate*, *i* as in *machine*, *o* as in *hole*, *u* as in *rude*; with like shorter sounds of the short vowels; *j* like *y* in *year*, *c* and *g* like Greek *kappa* and *gamma*. This oldest of American colleges also requests instructors to teach their pupils to pronounce Greek with the Greek accents, and with the continental sounds of the vowels and diphthongs. Now, if Yale once takes ground with Harvard, as seems likely from the action of certain of her faculty at the Poughkeepsie Convention, the preparatory schools which act as feeders to these two great institutions, will fall in line at once, and the other colleges will not be long in following suit.

And when this is done, a real and valuable reform will have been effected. We have no patience when we think of the months we have wasted in studying and teaching these two languages, because of the prevalent absurd, incoherent no-system of pronunciation, which has somehow been foisted upon these helpless tongues. We cannot take space here to discuss such a matter fully enough to show the grounds of an opinion, but we may say in a word, that only loss can come from disregarding the *genus* of a language or science; that it is only a waste of precious time and strength to teach in words and rules what we forbid or ignore in practice; that the development and etymology of these tongues is inexplicable, so long as we adhere to the present "English" pronunciation of them; that it unfolds itself according to phonic laws, which are rudely broken, if a new set of sounds is imported to interpret its characters; that falsities cannot be expected to be more fruitful of good in the field of grammar than in that of science. If any excuse is needed for saying thus much on a matter that cannot interest everybody, we trust it may be found in the fact, that in every village in the land, scores of young men and women are busy with the Latin accidence. They will get none too much Latin in the use of the best methods.

Another welcome feature in the Harvard catalogue, is the announcement that students, soon after their admission, will be examined in reading English. For the year 1870, they were asked to prepare themselves in Craik's English of Shakespeare (*Julius Cæsar*) or in Milton's *Comus*. It is high time that our English speech should have more and more critical attention paid to it, both in colleges and high schools. We plead for more English without asking for less Greek. Perhaps, in many cases, less Greek would be about the same thing as no Greek at all.—*New York Teacher*.