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Contributors

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MR. LOWE'S

EDUCATIONAL THEORIES

EXAMINED FROM A PRACTICAL POINT OF VIEW

BY

HELY HUTCHINSON ALMOND, Esq., M.A., Oxon.

HEAD MASTER OF LORETTO SCHOOL.

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MR. LOWE'S

EDUCATIONAL THEORIES EXAMINED.

THE statesman who, if report speaks truly, aspires to be the first British Minister of Education, has spoken out. Whatever Mr. Lowe chose to say on any subject would gain a patient hearing: what he says on education seems to many people to be right, simply because he says it.

The object of the present pamphlet is to show that, as far as the higher education is concerned, Mr. Lowe has brought to the consideration of his subject neither knowledge nor earnestness; that he is an unsafe and careless guide; and that the British public must, in the present excitement about education and the general looseness of ideas and information respecting it, take especial care that neither Mr. Lowe nor any other politician takes advantage of its presumed ignorance and gullibility to make the question of education a stalking-horse of popularity and ambition.

Mr. Lowe's Edinburgh speech consists of two parts—primary and classical education. His Liverpool speech, professedly on middle-class education, continually and mainly refers to higher-class schools and universities. As to primary education, I am going to say nothing,—for a reason which is not always considered sufficient,—because I know little. But there is one sentence of Mr. Lowe's which opens a question on which I think I do know something, as it is one which by no means touches only primary schools.

He says (p. 10), "The State ought not, for the future, to give loans of public money for the assistance or maintenance of schools unless they have what is called a conscience-clause—

that is, unless persons of all denominations are admitted without having anything done that shall violate or infringe upon their religious opinions." There is a little ambiguity about "all denominations" which I am anxious to clear away. I think that the children of all Protestant denominations can be taught together in the same school. I am really not sure whether the children of conscientious Romanists could be taught along with them by an amicable arrangement, certainly not under cut-and-dried Government regulations. But I am perfectly sure that the children of conscientious Christian parents could not be taught in the same school with the children of conscientious Unitarians, Jews, Deists, or infidels. Can a man have any right kind of influence upon children who is compelled to be silent on the subject of his deepest convictions? Is he to teach the "simplest truths of physics," the "simplest laws of animal and vegetable life," to the susceptible minds of children, without referring to the personal God on Whose Will they depend? If he does refer to Him, he offends the infidel: if he does not, he is practically teaching the Christian child that there is no connexion between God and nature. Is he to teach anything about the world's history without referring to the central truth of that history, without which, as has been well said, history would be a "gloomy riddle?" Is he to explain Christendom by some fanciful secular portrait of Christ? Is the child to be taught, as children are most easily taught, by the practical example of school, that daily labours should be begun and ended without prayer, and that the Bible is to be a book banished from the place of instruction?

There is no avoiding the difficulty. It is a matter in which it is impossible to be "liberal" to the unbeliever, without being tyrannical to the Christian. You cannot teach a child "suspension of judgment" in these matters. Teaching him no belief is practically teaching him unbelief. But what reason is there, except the insatiable desire of meddling, for interfering with our parish schools? Do not Free Church children go there; and are not non-Presbyterians, who desire it, excused from learning the Shorter Catechism?[1] Is there any practical

[1] *Vide* Note at p. 40.

grievance to be redressed ? anything like the monster iniquity it would be, to have the sacred separated from the secular, the life from the body, in the daily instruction of Christian children; and to have this instruction confided entirely to men of facile conscience or of neutral or negative creed ?

Now I will pass on to the new science which Mr. Lowe tells us "we must invent for ourselves," and which, by a fresh happy thought, he names "ponderation;" but which, according to a subsequent part of his speech, he not only invented, but perfected and applied long ago, when he drew up the scale of marks for the Indian Examinations. "We shall put into the scales" (p. 13) "all the different objects of human knowledge, and decide upon their relative importance." Four great principles are there solemnly laid down—the *dictum de omni et de nullo* of this new master-science of human knowledge. We are to prefer the knowledge of things to that of words; of the true to that of the false; of practical things to that of speculative things; of the present to that of the past. This is ponderation abstract. Now let us see how ponderation concrete explains these principles. "We took everything that we could think of that a well-educated man should learn," he says, in describing the way in which he prepared a scale for the Indian Examinations, "in order to solve the problem of education" (p. 30). I have something to say in its proper place about this notable solution of the problem of governing empires, as well as of the problem of education; the original conception of which, however, is not due to Mr. Lowe, but to the Chinese, with whom it has likewise culminated—in the Mandarin; but it is enough for the present to say that the principles on which it rests are rather those of a polyglot Encyclopædism than of "ponderation." Let any one look at the distribution of the marks, and he will see that out of the whole 7125 only a paltry 500 are to be attained by the most arduous and persevering study of "things." Well, this is only to be expected. The British Confucius is progressive. At Edinburgh he pats the muse of History on the back, and approves of her much, only wishing that her garments were a little more modernized in their cut; and at Liverpool he has discovered that she is an impostor, and turns her and all her toggery out into the cold. This may be only a symptom of the

rapid and ruthless development of ponderation; but I must confess that I have little faith in a science of education, the four fundamental principles of which severally condemn grammar, poetry, logic, and history to a subordinate place in her curriculum; and which, when their united light is concentrated into a focus, reveal to us the study of the art of making shoes, as standing on a higher pedestal than the study of the Paradise Lost.

But we must see how Mr. Lowe applies his "ponderation." He starts with the assertions that the principal subjects of education "in Oxford and Cambridge are analytical mathematics, and what are called the learned languages," and that "Scotch Universities are far more liberal than we are in England." As far as Oxford is concerned, three statements more grossly inaccurate could scarcely be made. Mr. Lowe ought to have known this, and not to have flattered the national vanity of his audience by endorsing popular delusions with the weight of his name. The cheers of his hearers, which seem to have been very vigorous about this part of his address, must have brought up the old reflection in the speaker's mind—*ἐς μὲν ἀκρόασιν ἴσως τὸ μὴ μυθώδες αὐτῶν ἀτερπέστερον φανεῖται.*

"We will proceed, gentlemen, with your permission, to apply the canons of the science of ponderation to analytical mathematics. They are conversant, strictly speaking, with neither words nor things, but with abstract notions of the mind—abstracted certainly from things, and expressed by words. My first canon is accordingly scarcely applicable, neither is the fourth, for they deal equally with all time, or rather are independent of the notion of time, present or past. The knowledge gained by them is certainly true rather than false, though this can hardly be said of all the assumptions with regard to infinitesimals, for example, made in the process of attaining that knowledge. Well, then, my second canon is so far in their favour, and so is the third, to a more partial extent; for though speculative things themselves, and though the greater part of the knowledge gained by them is useless, and purely speculative, yet their results have frequently been applied to practical purposes." There must surely be a lacuna in Mr. Lowe's published speech, for he has just said he is going to apply his

science to the two chief branches of education, of which analytical mathematics is one; but I do not see how any application of the four canons could fairly differ very much from that which I have ventured to supply. But in his speech, as delivered and published, "ponderation," after being introduced with a flourish of trumpets, is treated with the ignominy of silent contempt, as far as mathematics are concerned. "Mathematics are a most admirable study, and are calculated to train the mind to strict habits of reasoning, and habits of close and sustained attention." This is as old as the days of μηδεὶς ἀγεωμέτρητος εἰσίτω: but what have habits and training got to do with "ponderation?" There is no allusion to such old-world notions in the canons of our new science. And now we have several things of Mr. Lowe's own about mathematics.

The word of praise has been for synthetical mathematics. Analytical mathematics are purely bad, because they educate a man to approach a subject "analytically." "He takes his conclusion for granted, and then investigates the conditions upon which it rests. Well, that is not a good way of reasoning. The best way of reasoning is to fix upon principles and facts, and see what conclusion they give you, and not to begin with a conclusion, and see what principles or facts you may be able to pick up in order to support it."

The greatest triumph of analytical mathematics was perhaps the discovery of Neptune. According to Mr. Lowe, Leverrier and Adams began by guessing the position and size of Neptune, and picked up the attractions of Jupiter and Saturn by the way!

It must be admitted that the right position of mathematics in education is a very difficult subject. Professor Airy goes beyond most men in the very limited amount of geometry which he thinks that the mind of a boy of 16 or 17 is usually capable of studying with advantage; but that a great deal of time is often wasted by boys beginning to learn before their reasoning faculties are sufficiently developed, is, I fancy, the experience of most practical educators. Again, it is notorious that many high wranglers at the beginning of this century were afterwards distinguished in different walks of life; and that this has not been the case of late years is, I believe, generally

ascribed to the too absorbing devotion to mathematical pursuits now required to take a high place in the Tripos. The spirit of competition, once moderate and healthy, has risen to fever-heat, and demands too great a strain upon the mental faculties. But then come the practical difficulties. How in the latter case is the needful honour of encouragement to be given to *limited* work and proficiency? And in the former case, are boys who leave school for practical life to be left without the "indispensable basis of real scientific education?"[1] The solution of these and similar questions is not expedited by the random badinage of men of note and fame; and it would be amusing, if it were not for the grievous influence which Mr. Lowe's name gives to anything he may please to say, to compare his exaltation of science in a subsequent part of his speech with his depreciation of analytical mathematics, which, again to quote from Mr. Mill, "furnish the only school in which philosophers can effectually learn the most difficult and important portion of their art, the employment of the laws of simpler phenomena for explaining and predicting those of the more complex."

The remainder of Mr. Lowe's speech is occupied by an attack upon classical education, both in itself and in the methods generally used. The modern languages should take precedence of classics; English of the modern languages; and physical science of language and languages. And again, language should be taught, not by rules but "colloquially," for "*Language grew we know not how*—like a tree or a plant; it was not made under general rules, and therefore, when you are trying to form general rules for it, you are sowing the sand." I really cannot help pausing to remark on the brilliance of this illustration of a sentiment which, if we distinguish growth from origin, almost takes away the breath of any one who has studied comparative philology, even so slightly as to have read Max Müller's delightful lectures. But just transpose the illustration, "A tree or a plant grew we know not how—like language; it was not made under general rules, &c." It is edifying to apply this to Mr. Lowe's subsequent glorification of the physical sciences, especially "the wonderful generalizations with regard to *plants* and

[1] Mill's *Logic*, vol. ii. p. 157.

animals" (p. 27). But it is really of very little practical consequence how the general rules of language came about; the fact remains, they are there, crystallized in it. Mr. Lowe argues that if "language had been made like Euclid, every one of those rules which had been tied we could untie, and a language having been put together in that way we could analyse it into rules. But, gentlemen, language was not so made," and, therefore, grammatical rules are absurd, and the analysis (or loosing of the knots) of language is absurd. I grant freely that if he could succeed in forcing this position, he has carried, not an outwork, but the very acropolis of the classical system of education. If grammar is not a true science, if rules are not the "media axiomata" which give form and consistency to its principles, if it does not teach order and logical method as well as words and names, it is high time that the system of education which has been based on the scientific and logical study of grammar should be, not reformed, but utterly swept away. The nations of Europe, the great nations of the ancient world, are involved with ourselves in the same condemnation. The whole intellectual training of civilisation has been founded on a delusion. Perhaps the birth of a new system may be coincident with the good time coming, when, according to no less a person than the President of the E.G.S., "the existing varieties of mankind will pass away and be superseded by others more nobly constructed and more divinely endowed."[1] But to descend from these speculations. I am going to assume that grammar is a science, and that its subject-matter is language, that the ordinary generalizations of nominative and verb, of optative moods and conditional clauses are in the main as true to facts as the generalizations of other sciences; that the laws of language, which it investigates, are not arbitrary creatures of the imagination, but express realities existing in language, and that there are rules deducible from these laws of which it is no nearer the truth to say, as Mr. Lowe does, "that you never know whether they apply or not," than it is to make the same assertion of the rules of applied botany, or applied geology, or of any other science except those which are purely mathematical and exact. And I am also going

[1] *Man— Where, Whence, and Whither.* By David Page, p. 181.

to assume that grammar is not only a science, but is also an art, and that it is because the teaching of an art which we must use ought to go, and to a certain extent must go, hand in hand with the teaching of the science, that grammar holds a place in our educational course which cannot be occupied by any science whose subject-matter is something external to the human intellect. But I am not going to assume that there are not blots to be hit in the methods and order often adopted in teaching this art and this science, for I think there are. I think that too much of the science is often taught, and too little of the art. I think that abstract rules are often learned by rote before the practical application of these rules is understood, and that the practice of the art, the actually working out concrete examples, ought to occupy a far more prominent place than it often does in practical education. And yet it must be remembered that these are practical questions for practical men. And I defy even a practical man to tell how a theory, plausible as it may seem, will work until it has been fairly tried. What can sound fairer than Ratich's notions—till they were tried?—

"Dissatisfaction with existing education led several towns to employ him to organize their schools. The chief points of his method were to begin with the mother tongue, to teach a language first and the grammar afterwards; to let nothing be learnt by heart, but impress a lesson by frequent repetition, and the like. He saw the weak points of existing schools, but was not competent to reform them. He ended by being thrown into prison, and was only let out by signing a paper to the effect that he had promised more than he could perform."[1]

Quacks are not always dealt with in this summary way in this country, though the question was humorously discussed not long ago on another platform by another orator, whether we should not all be poisoned for refusing to become quacks. Why does some philanthropic schoolmaster not give a lecture for the benefit of the doctors, and instruct them how to cure?

In a more advanced stage of education, again, I cannot help thinking that there is a misplacement of grammatical study, which has been increasing of late years, and which has been very much fostered by Mr. Lowe's favourite examinations for the

[1] *Essays on a Liberal Education*, p. 58.

Indian Service. Dr. Pattison, in University matters an advanced educational reformer, writes: "If the university has got too much into the way of doing again the work of the school, the school has invaded the province of the university. Exercises are giving way to philological lessons. Colleges encourage this by setting papers on 'philology' to candidates for scholarships; and a considerable amount of such knowledge is often displayed on these occasions by schoolboys. In this error we are imitating that Germany from which we are so reluctant to learn, when we might learn with advantage." And again: "In cutting down, as we have done in submission to the press and platform demagogues, our composition in our grammar-schools to the minimum which tests grammatical correctness, and filling its place with knowledge about language, we have been going counter to the natural law on which education in language is founded. Grimm long ago denounced the teaching of German grammar in schools as a preposterous mode of learning the mother tongue."[1] Dr. Pattison, from another point of view, insists very strongly, but not, I think, at all too strongly, on the necessity of composition as an integral and prominent part of a classical course: "To abolish, in a school, Latin writing, and divert the time to the acquisition, *e.g.*, of some useful knowledge, is merely to add an imperfect training in science to an imperfect training in literature, in the expectation that two faulty halves will make together a perfect whole" (p. 281).

But why teach classical in preference to English composition? Well, there are two ways of learning English composition,—one, by means of translation from and composition in another language (the thought in the latter case being necessarily remoulded in the pupil's own language); the other is by writing themes: both methods being supplemented by answering questions on paper in history and other subjects. I do not think it needs much reflection to discover which of these two methods is likely to be the more successful.

In the classical method a well-expressed thought is given, and has to be recast into the forms of another language. When one language is inflectional, and the other non-inflectional, the change required—not only in the order of the words, but of

[1] *Suggestions on Academical Organizations*, p. 285.

whole forms of expression—is more complete than when both languages have lost, or nearly lost, their inflections. In the former process the thought and expression have both to be found by the pupil. Whether a boy is likely to learn to write English best by translating Virgil and Thucydides into English, and by retranslating English (which requires the previous remoulding of the English sentences) into the forms of Virgil and Thucydides, or by writing crude, bald themes of his own, is, I think, tolerably evident as a matter of *a priori* probability. I have not the slightest doubt of it as a matter of fact. I can endorse, from my own personal experience, a fact which was alluded to in a *Times* leader the other day. I remember my expectation on going from Glasgow University to Oxford, that Snell exhibitioners would have an advantage over boys from the English schools in essay-writing, and questions in history and philosophy, which might, to some extent, compensate for the general inferiority of the former in Latin composition. This expectation was not verified, but very much the reverse. I hope I may add, without being egotistical, that the want of a sound early training in the condensed accurate forms of classical prose and verse has been a subject of lifelong regret with myself, and that smatterings of English, French, German, chemistry, history, geography, and I don't know how many other things (which were all put upon an equal footing with classics in an experimental Glasgow school of the time),[1] and premature speculation in logic and metaphysics conducted in the class-room of the most admirable of Professors, occupied so much valuable time.

I will add a quotation from Dr. Pattison, who has studied German education more deeply than most men. Speaking of the attacks made upon classical composition in schools, he says, "We are underrating and letting slip that one feature in our grammar-school system which the German theoretical Pädagogik has stamped with its approval, and which practical schoolmen in Germany would wish to naturalize at home. We are slowly imbibing from the example of German universities a habit of scientific examination of the material contents

[1] Long since defunct, but which, if it existed now, might dispute with Mr. Lowe the prior discovery of "ponderation."

of classical literature. Are we not, in the process, in danger of throwing away a discipline of which the German schools envy us the possession?"[1] I hardly need to say that Dr. Pattison's prejudices are not apt to be on the side of anything English.

What appears to me to be totally indefensible in the system of many of the English schools is the requiring *original* composition in classical verse and prose. Even for men at college, I believe that Latin theme-writing is about as useless a thing as English theme-writing (as a usual exercise, and excepting subjects in which they take a keen interest) is for school-boys.

Latin verse is treated with especial obloquy by Mr. Lowe. It has recently been attacked in what I can only call an infuriated essay by Mr. Farrar; but these gentlemen, and others, who amuse audiences and readers with this stock subject, never think of making the distinction between original composition and translation. I fear that the thoughtful discrimination of Mr. Mill, with whom, however, I cannot agree in limiting translation to *prose* (*Inaugural Address at St. Andrews*, p. 20), is unknown to many who mistook the flippant sarcasms of Mr. Lowe for reasoning.

I will conclude this subject with a quotation from Professor Connington.[2] "We choose verse composition in particular, because, as a matter of fact, we find that verse composition is suited to the capacities of young boys. Mr. Johnson, in a later essay, has done me the honour to refer with approval to an opinion which I expressed to the Public School Commissioners, to the effect that, whereas a verse is within the grasp of a boy's understanding, a prose sentence is to him an impenetrable mystery. This was grounded on my vivid recollection of my school days, and also on the experience of some years at Oxford, during which pupils were constantly bringing me compositions in verse and prose. I have often amused myself by paralleling individuals with nations, and noticing this comparatively late appreciation of the capabilities of prose as a fact in literature, as I had already observed it as a fact in my own development."

In discussing the subject of the higher education, it would

[1] Pattison's *Suggestions on Academical Organization*, p. 284.
[2] *Contemporary Review* for January 1868.

be unnecessary to mention spelling and writing, but for Mr. Lowe's remarks at p. 20 of his published address. He blames Oxford and the highest public schools, because they turn out men deficient in these necessary accomplishments. If a boy leaves home or a preparatory school at 12, 13, or 14 years of age, whose fault is it if he cannot write or spell? And if he cannot do it then, are the other boys in his form to be condemned to unnecessary lessons with a spelling and writing master for his deficiencies? or is he to be taught on a separate system? Home is the place for making up such deficiencies, if they exist—which they should not when a boy goes to a public school. For Mr. Lowe to have put this count in his indictment against public schools and universities would have been childish trifling, if it were not artfully veiled sophistry.

I must here remark in passing, and as an additional illustration of Mr. Lowe's recklessness of statement, that when he says that a highly-educated man "need not know, very often does not know, anything about arithmetic," he is making an assertion which any one who knows the requirements for Responsions at Oxford, or for the Previous Examination at Cambridge, as they stood for the last twenty years, or thereabouts, knows to be simply, and without qualification or exception, untrue. That it may be true of men of older standing is no sort of justification for bringing the charge against the present state of the universities.

Mr. Lowe's omitting to pit English grammar against Latin and Greek grammar is accounted for by his disbelief in teaching grammar altogether. A little more vigilance on his part might have prevented the amount of useless cram about language which has to be painfully acquired by those aspiring to Indian appointments. It must be evident, however, to any one who reflects upon the subject, that it is impossible to teach Latin and Greek grammar without teaching English grammar along with them, and that, from the very familiarity of our own language, it is the worst possible medium for learning grammar as a science. But Mr. Lowe's assertions, that the Greeks "knew no language but their own," and that "the Romans knew just enough Greek to make them forget their Latin, and

the consequence is, their literature is inferior to that of the race that came before them who knew one language," meet me in the face here, for they certainly apply to the grammars of the languages, if he admitted such a thing as grammar. As to the Romans, they never had any literature of their own; and for the refinement and civilisation which produced historians, poets, and orators, as well as warriors and tribunes, they were entirely indebted to Greece and to Greek. As to the Greeks, let us hear Mr. Mill (Inaugural Address at St Andrews, p. 12):—"I hardly know any greater proof of the extraordinary genius of the Greeks than that they were able to make such brilliant achievements in abstract thought, knowing, as they generally did, no language but their own. But the Greeks did not escape the effects of this deficiency. Their greatest intellects, those who laid the foundation of philosophy, and of all our intellectual culture, Plato and Aristotle, are continually led away by words, mistaking the accidents of language for real relations in nature, and supposing that things which have the same name in the Greek tongue must be the same in their own essence."

I may add, that the great differences between the dialects which were known and read by cultivated Athenians, to some extent supplied the place of other languages; that the Greeks of Asia Minor, and all the travelled, *i.e.*, many of the most highly-cultivated Greeks, did of necessity study languages more widely differing from their own in form and structure than Greek does from English; and that the training at Athens in grammar and dialectic and rhetoric was much more severe, and had to be continued to a much later period of life than if these sciences had been learned through the medium of a foreign tongue.

I can quite conceive its being said, "After all, these are not practical points; for Mr. Lowe and other educational reformers do not wish English only to be studied, but particularly insist on the importance of at least the two great spoken languages of Europe, which have an incomparable superiority over classics as a medium of communication, and are equally good as a means of training." And this is a very fair practical issue to be raised; it has been frequently discussed from many points

of view; but in its general bearings it has met with a most temperate, and at the same time most exhaustive treatment, in Mr. Mill's Inaugural Address at St. Andrews;—I say in its general bearings, because Mr. Mill does not speak from the point of view of one who has taught languages, and would, I am pretty sure, modify some of his opinions about the right manner of teaching languages, if he had some practical experience in doing so. But, first of all, let us see what Mr. Lowe says. Twice in his speech, and twice only, does he make more than a general and passing allusion to modern languages. At p. 18, "There is no doubt that Greek is a language of wonderful felicity of expression; but what is more beautiful, more refined, what will exercise taste better than the study of the best modern French prose to be found in M. Prévost-Paradol, Sainte-Beuve, and other recent writers? There is nothing that can approach it in the English language."

Afterwards, when it suits his purpose, he says, speaking of English, "We have, I say it boldly, a literature unparalleled in the world." Just so. English is "gentlemen's best hats;" and Monsieur Prévost-Paradol is "a still finer quality;" but what eye could detect such microscopic differences after gazing with wonder and contempt at the antiquated wares of the old-established shop over the way? Again, Mr. Lowe once, and once only (at p. 26), mentions that noble language to which the nations of Europe would vote the same post of honour each next to its own which the Greeks voted to the victor of Salamis. And what does he say about it? Why, that the German waiter who can speak English is "better educated" than the Oxford first classman who cannot speak German. We have all heard of "mute inglorious Miltons" in obscure English villages; the paragons of German culture are not so hard to find—they are there in those gorgeous palaces which a hospitable nation provides for the purse-laden foreigner, but to which that nation itself prefers its snugger and more economical retreats. It is a pity that the eyes of the Germans should be so blinded, that English is still utterly tabooed at their Gymnasien; that even to French a pitiful two hours a week is devoted, just an eighth part of the time which is given up to classics. But Mr. Lowe has chosen his illustration badly. There are beings, compared

with whose intellectual prowess even that of the German waiter sinks into insignificance. Viewed by the light of chatteration (to adapt one's-self to Mr. Lowe's terminology), he pales before the Continental courier or the dragoman of the East.

I have said, and said truly, that the two instances which I have quoted above, are the only two in which Mr. Lowe has made special mention of modern languages in his Edinburgh speech. But he has thrown a new light on the subject at Liverpool:—"If you want to teach a man French, take the most amusing French novel that can be found, something that will draw him on and be a pleasure and delight to him, instead of giving him some insipid moralist. Give him a story that will give him a little insight into life." Mr. Lowe is the prophet of a certain school of educational reformers; he is a privileged man. There are not many other men who could have got up before a respectable audience and recommended the study of French novels as the best means of training and forming boys' minds and ideas, without being hissed down. The yellow-backed books which swarm about railway-stalls and in schools are not vicious; some of them are written by good and right-minded men; but for all that they do so swarm as to have become a curse. Any one who knows the present generation of boys knows this. Your devourer of novels is as bad a subject as your devourer of confectioner's trash. The disordered, enfeebled brain, the unbraced, flaccid muscles of the mind, the want of power and spirit and earnestness, alas! who does not know the type? But the Coryphæus of our would-be reformers has the audacity to propose that the stolen sweets, the present excess of which works such mischief, should be made the regular mental sustenance of schoolboys, after being duly poisoned with a colouring of infidelity, and flavoured with a relish of licentiousness.

On the whole, upon collating Mr. Lowe's views in his two speeches as to the place which English and French literature should occupy in the curriculum of the future, it is evident that when he turns schoolmaster, great part of his time-bill will be after the following fashion: Monday and Friday, 10 to 11, Chaucer—'The Miller's Tale;' 11 to 12, Dumas—'The Three Musketeers;' Tuesday and Thursday, 10 to 11, Wycherley—

'Love in a Wood;' 11 to 12, Byron—'Don Juan,' and so on. The more discursive the course, the more likely it is to form Walter Scotts and Byrons and Lowes. "I can only say, that I owe all my success in life to these stolen hours; that the power of being able to read and to speak my own language with precision and force has been more valuable to me than all the rest that I have learnt in the whole course of my life." I would have thought that precision and force were the very last virtues likely to spring from a habit of desultory reading. No reasonable man can deny that they exist in the highest perfection in Mr. Lowe, and no reasonable man can doubt where he acquired them—in his severe and systematic course of study for that class list of which his name is one of the highest ornaments. If a man who has rowed in a university eight chooses to ascribe an unusually powerful biceps to a dose of castor-oil, nobody will take much trouble about contradicting him. But he has no right to treat Byron so. It is to begin with an absurd exaggeration to call Scott[1] and Byron "the two best masters of the English language of the century." Story-telling in prose or verse is more a natural gift, and one less affected or improved by an accurate mental training than any other product of the brain. But to return to Byron. "They both turned out very bad Latin scholars, and no Greek scholars at all." Whose translation of "Justum et tenacem" begins, "The man of firm and noble soul, no factious clamours can control"? Who caught the spirit of Æschylus's noble chorus, *Μηδάμ' ὁ πάντα νέμων* . . . . but the Harrow boy of 1804, whose "Great Jove, to whose almighty throne, both gods and mortals homage pay," remains as a model of what English schoolboys have done, and still, thank goodness, can do. Happy schoolboys of the future! We have often heard that up the hill of learning there is no royal road, though many have tried to find it. But no more shall you have to mount step by step with toil up that arduous incline. There is a people's railroad projected up this hill of difficulty. The gradients may be steep, but its cushions are soft, its pace is

[1] Scott's admirers do not usually consider that his idleness as a student of Greek at Edinburgh University qualified him for success in life; nor do they wish to see printed among his works the essay in which he maintained the superiority of Ariosto to Homer.

rapid, and its fares are low. But don't imagine that this pleasant line will take you to that shoulder of Parnassus where Lord Byron culled these early flowers. I do not myself think he had even done what Mr. Lowe says we ought to do, and got up his knowledge of Æschylus and Horace by German translations. It was not his way to look at stained windows through pieces of smoked glass. But, schoolboys of the future, though you may be whirled up higher than any of us have been before, without plodding on by dint of the staff of grammar and the ladder of lexicons, I fear you are not likely to rival the schoolboy exercises of Lord Byron. That Byron was not an accurate scholar is true: that he was a diffuse reader is true; and Byron deeply regretted it.

> "I abhorred:
> Too much, to conquer for the poet's sake
> The drill'd dull lesson, forced down word by word."

So little did he share Mr. Lowe's paradoxical admiration for what is vague and unsystematic, that he says of himself, "I came away a very indifferent classic, and read in nothing that was useful." As slight a classical training as Byron received would not have filled many boys with so much of the classical spirit; but if the discursiveness which he himself deplored, were made a model for general imitation, it would produce many resembling Byron in little else but incapacity for a settled life, for sound thought, and for systematic work. It is indeed most desirable that a boy should acquire a taste for reading good English authors, and a very considerable knowledge of the style of our greater classics. But before saying what I think should be done to help to impart this taste and this knowledge, I will mention two things which should not be done. There should be no cram about authors whose works he has not read. Spalding's *English Literature* is an admirable book of reference; I would as soon think of setting a boy a lesson out of Johnson's Dictionary. Now, why do I mention this here? Because, in Mr. Lowe's boasted handiwork, the Indian Examinations, knowledge of this sort holds a high place, as any one can see from the printed questions. A friend of mine, now in India, told me that, acting under good advice, he got up all the

minor characters in Shakespeare's plays. It is a little anticipating (but it shows the kind of education we would come to under Mr. Lowe's auspices) to mention that the same friend "scored high" for geology. I asked him where he had wielded his hammer to get his knowledge of the subject. He told me that he had never examined a rock in his life, and didn't know a fossil when he saw one! Now this is knowledge; this is what is called useful, and set up by Mr. Lowe and his fellow doctrinaires as something very much exalted above the trained and ready power which wins an Oriel or a Balliol fellowship. I am happy to say that my friend is a well-educated man, and that he has a hearty contempt for these noxious examinations. But how many men are going out year by year to govern our Indian empire, with brains overloaded with an undigested mass of "information," and with such physical training, *esprit de corps*, social habits, power of governing and conciliating inferiors, as Mr. Lowe and his associates seem to have thought would not be acquired by a life at our great schools, and Haileybury as it was, and will be acquired by a few years of London life in lodgings? Old Indians who know whether the new Sahibs, when weighed by the practical "ponderation" of the native, are or are not an improvement upon the old race, will perhaps pardon this digression.

To return to the subject of English literature in schools. I do not think (though there is something to be said on the other side) that English literature is a good subject for "parsing" and "grammatical analysis." A dead language is the proper medium for learning the science of grammar; and in order to make a boy mark and dwell upon every form of expression in an English author, there is nothing like translation into Latin prose and verse. But I do think that reading good English authors *at home*, not as task-work, should be more encouraged than it is. At some homes it is, and most satisfactory it is to get a boy who comes from them. But if a boy is encouraged to read nothing at home beyond a novel or a newspaper, if he hears nothing talked of at his father's table better than personal gossip, it is in vain to expect a school to drive intellectual or literary tastes into him.

Not that the English classics ought by any means to be banished from our schools. It is much better that the most

urgently needed, and only too much neglected reading-lessons, should be given by a continuous reading of 'Hamlet,' 'Julius Cæsar,' 'Samson Agonistes,' or the like, than out of a book of extracts. And to give vent to an idea that very methodical people will smile at, the time for this reading-lesson (when boys are past the stage when it is required daily) ought not to be fixed. Sometimes when boys are tired with a hard run, or football match, it may be substituted for a regular lesson; sometimes a spare quarter hour, when a regular lesson has been got quickly over, may be utilized in this way. I of course need not say that any good teacher makes extensive use of the English classics in the way of comparison and reference; but it is perhaps scarcely going too much into detail to add, that recitations from English authors may often be conveniently substituted for the usual and most valuable repetition of Latin poetry. But let not any one imagine for a moment that reading English authors is mental work. It is a refreshment and a rest to both master and class. It requires little exertion of the memory, the judgment, the attention, and no concentrated force of the will.

But why will not French classics answer every purpose? French is unquestionably useful for a great many purposes for which Latin and Greek are not, and Mr. Lowe says that it is just as good a training. Now I think that even if it were as good a training to translate 'Télémaque' as to translate Virgil, and to write French prose as to write Latin prose, there is another aspect of the question which has been exhaustively discussed by Mr. Mill (*Inaugural Address at St. Andrews*, p. 12-19). In Greek and Latin alone do we read history by great contemporary historians in its original sources; we have civilized man and his institutions presented to us from a point of view differing far more widely from our own than is possible in the literature of any modern nation; we can trace the descent up to their earliest ancestry of modern realization in art, of modern systems in politics, and of modern conceptions in philosophy; and I will add, that no man can form any notion whatever on the most practically important of all political problems, the influence of Christianity upon civilized man, without being familiar with the thoughts and inmost nature of civilized peoples, to whom Christianity was unknown.

But most emphatically do I deny that French is just as good a training. I had feared it might require considerable entering into detail to show why, though the fact is self-evident to every one who teaches boys; but I have to thank Mr. Lowe for helping me out of the difficulty. In his Liverpool speech he says: "Why, what is the way in which we learn the languages? We take a lexicon, and take it for granted that the meaning of the word is what the lexicon tells us. . . . Then in the same way there is nothing in these languages to teach a man to observe. It is all put down before him in black and white, and he has nothing to do but to look out the word in the dictionary, and to put the meaning he finds there in the place of the word he finds in the book."

Well, this is a capital description. But it is a description of the way in which a boy uses a French dictionary to translate a French author; and it is utterly unlike the way in which he uses a Latin or Greek lexicon to translate a Latin or Greek author. In the French author the words are as nearly as possible in the English order. There is no looking out for the nominative and verb, and fitting the other words and clauses into their places; they are in them already. And if you turn up a word in the French dictionary, there is, as a general rule, the required English word next it. This is merely mechanical work, which neither requires nor imparts mental training. But most Latin and Greek sentences are not to be solved in this plain-sailing way. I am not speaking of crabbed passages, which it is a waste of time for most boys to labour at, but of ordinary sentences. There is hardly a word in the languages which exactly corresponds to an English word, and the consequence is, that after the construction has been unravelled, the meaning of the words in the passage has to be discovered by a series of hypotheses and adjustments. And then, from the very great structural differences between ancient and modern languages, what is called the "literal English" is generally not English at all, but has to be remoulded, often after several unsuccessful attempts, into something more like idiomatic English. If any one will be at the trouble to take a French dictionary and use it to translate a page of 'Télémaque,' and then take a Liddell and Scott and translate a page of Euripides, the truth of this will I think be pretty evident. So far as learning

French at school, for the sake of its literature, or as a means of training, is concerned, I entirely accord with Mr. Mill, when he says, "The only languages, then, and the only literature to which I would allow a place in the ordinary curriculum are those of the Greeks and Romans" (*Inaugural Address*, p. 12). But then comes the practical difficulty, which is mainly this: it is necessary, or at least very highly advantageous, for merchants especially, and for many others, to be able to carry on conversation or correspondence in French. Mr. Mill meets this difficulty by saying, quite truly, "A few months in the country itself, if properly employed, go so much farther than as many years of school lessons." Yes, but if you send a boy to a foreign school, you put him under the charge of some one who does not understand British boys, and where the restrictions are numerous, galling, and of the wrong kind. If you send him to a foreign tutor's, he passes from the discipline of school, not to the intermediate and nicely balanced discipline of a university, but probably to freedom from restraints of all kinds. I am not depreciating foreigners. It would be quite as great a mistake to send French or German boys to Great Britain for a considerable part of their education. There would, in general, be too little sympathy between them and their superiors for there to be much moral influence. The same difficulty evidently applies to any extensive surrender of the teaching of British boys to foreign masters in this country. Dr. Arnold introduced at Rugby the teaching of French by English masters; now I believe there is one French master resident at Rugby. But schools have just fallen from one difficulty into another, and it is only speaking the truth to say, that with the ordinary plan common to British schools and the Prussian Gymnasia, of two hours a week (or including preparation three or four hours) for nearly the whole school course, being given up to French, a great deal of precious time is spent for very little good at the end. Three and a half hours weekly, for five years of 40 weeks each, is 700 hours, or about one-half of a school year, reckoning a week's work at 35 hours! Now my idea is this:—Let boys during their school course have a daily quarter-hour lesson from a French phrase-book, getting up one or two phrases daily; let this be alternated after some time with learning the verb—

and the inflexions of the French verb are easy for one who has learnt the Latin verb well; and then let every boy for whom a knowledge of French is considered important be put into a separate department for a couple of "halfs," in which something like four hours daily is devoted to French and modern languages, partly under foreign and partly English masters, and some real good will be done, and the regular school work of the previous years not interrupted and unsettled by French. Travelling about in France afterwards would, of course, give a more ready command of every-day phrases. If the present outcry continues from platform and in newspapers for French to be learned alongside of classics, and to an equal extent, education will suffer to an extent which few but those who have practically to do with boys can be aware of. That the study of French, as at present carried on, is injurious to some extent to the solidity and accuracy of mental training, I cannot question.

I have been leaving Mr. Lowe alone for some time, for he soars so much in the heaven of airy speculation that he is quite out of sight when we are labouring among the thorns which beset the still existing roads up the hill of learning; but as he and others, who do not fly quite so high as Mr. Lowe, tell us that French and other languages should be altogether learned in the natural, *i.e.*, the colloquial method, I answer, this is very well, if you give us the natural conditions, which are *not* talking one language for about an hour or two a day, and another language at other times.[1] But the colloquial method only dwells in the brains of those who have never taught boys. It receives some rude, and I hope fatal, blows in Mr. Max Müller's evidence, which I shall afterwards quote.

The necessity for learning to talk German is not by any means so great or so universal as the necessity for learning to talk French; but so far as it exists, the observations which have been made about French apply to German. The advantages of learning German as a literary language are however great and unquestionable to men of deep research in

[1] Mr. Lowe quotes Montaigne as an instance of the success of the colloquial method of learning Latin. He could not have found a more happy illustration of his views. I quote from *Essays on a Liberal Education*, p. 58. "Montaigne's father had actually brought him up as a child to speak Latin only."

philology, divinity, or philosophy, and scholarlike knowledge of German is a necessity, and accordingly they learn it. But I very much question whether it would have been any advantage to men of this kind to have had a third literary language to master in their school-days; and I am sure, that making the attempt, in the case of nine-tenths of the boys who come to school, would simply prevent the chance of any one language being thoroughly mastered. I know what will be said,—Substitute German for Greek, because of its superior utility. Now, as a literary language, I deny its superior utility, and learning it by the labour of years of study as a literary language would not be equal to two months in the country so far as the acquisition of that small part of a language which is directly available for purposes of common conversation and business is concerned, but putting aside for the present general considerations as to the study of language as a science, and the acquisition of an enlightened view of man and history, which apply far more strongly to Greek than they do to Latin, the stigma of the "worship of inutility," which Mr. Lowe has tried to cast upon the classics, does not apply one whit more to the study of them than to the study of any other literary language.

I will not stop to discuss the fallacies involved in the abuse of the word "useful," nor to vindicate it as an epithet for whatever helps to form, invigorate, or perfect our faculties of mind or body, but I will confine myself to mentioning two direct "utilities" of a knowledge of Greek. The term is surely not misapplied, unless we limit it to getting money, and things which money can buy.

A knowledge of Greek is of the greatest possible use for gaining a knowledge of English. An eminent man has said from a suburban platform, that if we want a knowledge of English we should study Anglo-Saxon. I asked a class of little boys what they thought of this, and a little boy's answer is sufficient for my purpose—"All the little words come from Anglo-Saxon, and the big ones from Latin and Greek." Exactly. A boy does not need to know Anglo-Saxon to teach him what a cow means, or a bench, or a ball; but when do boys first become introduced to such words as sophistry, empiricism, demagogue, and the like?

Why in their Greek lessons. I will venture to say that boys have a far more definite, satisfactory knowledge of words which have been learned in this way, going to the very fountain-head of their history, as it were, than if they learnt their meaning by studying any branch of modern literature—say the platform oratory of the year. I will just take a Greek lesson I happen to have immediately in hand, and I will only take ten lines, from line 200 to 210 of the 'Alcestis' of Euripides, and we will see what knowledge of English words can be made to hang upon their originals. I do not for one moment suppose that any man teaching a class would stop at each word to give its derivatives, and follow out the line of thought suggested by them. One or two are as many as would fix themselves in the mind at one time :—

Chirurgeon ; philosopher ; philanthropist ; phthisis ; marasma ; barometer ; microscope ; microcosm ; pneumatics ; heliotrope ; heliocentric ; aphelion ; perihelion ; actinism ; cycle ; epicycle ; optics ; evangelist ; angel ; cachexy ; despotism ; palæology; palæontology; phrenology; pantomime; mechanics.

I daresay this is a point of detail on which some may disagree with me. But I am fully persuaded that the Greek lesson affords the very best opportunity for gradually introducing a boy to scientific terms and scientific conceptions. If you stop a few minutes and give a short explanation, *e.g.* of Actinism, a boy does not forget *Ἀκτὶς*, and he has learnt something upon Actinism which he is less likely to forget than if it had been crammed out of some repulsive compilation. The other " utility" of a knowledge of Greek which I shall mention, is the power it gives of reading the Greek Testament. If you want to teach a boy to read accurately, observantly, and critically, if you wish to introduce him to the most perfect specimen of artless and graphic narrative, of simple and eloquent discourse, let him read the Greek Testament. For the rest—I know that our noble English version is sufficient for the unsophisticated mind ; but who that knows the full force with which a scientific habit of thought prejudices against a settled belief in supernatural revelation, but will be thankful that he has to oppose to the crudities of human speculation and the cold pressure of the stately uniformities of material law, the still

mightier force of human testimony.[1] The marks of eyewitness, of unity of narrative, of absence of possibility of fraud and collusion, conspicuous in the English version as they are, are irresistible to the unprejudiced student of the Greek.

And if we cannot doubt that God uses His noblest and best for His highest purposes, can we question that the expressiveness, the terseness, the suggestiveness of the Greek language, which so eminently adapt it for conveying to man God's perfect revelation, do also constitute it a most useful as well as a most noble subject of liberal study?

Those who, like Mr. Lowe, would have us break off from what is at once the mother tongue of civilisation and the depository of the sacred oracles, are very fond of indulging in plausible rhodomontade about utility, but they carefully abstain from making any appeal to fact. Mr. Lowe speaks as if the substitution of a modern basis of education was untried in England; others speak and write as if it was triumphant in Germany. Now what are the facts? At Cheltenham, at Wellington, at Marlborough, at the Edinburgh Academy, there has been for a long time a modern side in full swing; every parent who wishes it can send his son to a well-managed seminary, where the classical element shall be eliminated from his training to his heart's content. Some ambitious parent asks "Why not both?" Well, he has only to look through the advertisement columns of the *Times*, and he will find an ample choice of establishments where, in addition to a scholarlike knowledge of the classics, and an intimate acquaintance with the language, literature, and history of his native country, may be acquired a ready familiarity with the languages of modern Europe, history and geography ancient and modern, mechanics, geology, chemistry, botany, magnetism, and the use of the globes, drawing, music, dancing, surveying, and calisthenics. The intellectual gin-palaces which Mr. Lowe in his Liverpool speech—to use his own apt illustration—saw before him only as the dim vision of a happy future, are, let me inform him, realities of the present. Their glitter and their tinsel even now lure many to send their children to imbibe the deleterious concoctions of their projectors, who have not waited for Mr. Lowe's telling that there

[1] *Vide* Professor Conington in *Contemporary Review* for January, p. 16.

is a demand for their wares, and do not need Mr. Lowe's encouragement to degrade an almost sacred profession by pandering to popular ignorance bolstered up by educated twaddle. As to the long established modern sides in some of our good schools, I wish to know why Mr. Lowe and his school never refer to their results. Are the modern side boys a better type than the classical?—those especially who join the modern side without any previous classical training? How do they rank in subjects when they come into competition? I am speaking without book, but not without experience or information, when I say that the training, though conscientiously carried out by able men, given on the modern side, has, with the exception of a few boys of remarkable mathematical or scientific ability, proved itself a wretched training compared with that given on the classical side. But I also believe, as I have already indicated, that it is better for boys for whom such training is a necessity to receive it at a British than at a foreign school. The evils incident to "modern sides" would doubtless be much mitigated, if schools would have the firmness and self-respect to admit to this department those only who could write English and Latin with tolerable correctness, and who had received the invaluable logical training of a sound knowledge of the Greek rudiments. Such boys would make rapid progress if not waterlogged by all the idle and incompetent refugees from real mental work.

But what are the facts about Germany? Why, in Germany, "modern side," "choice of subjects," and all the educational hotch-potch, of which there is just a little too much in England, are, as far as regards the higher class German schools, absolutely unknown. And here I must guard myself by saying, that while I think unity of training essential to the unity of tone and feeling which should characterize the individual school, I think also that the German Gymnasien, and also the French Lyceums, are too much one like another, and without the healthy individuality which, from no two having exactly the same system, distinguishes schools in this country. I will quote from an official document.[1] Any one wishing to peruse the rest of it, will find it in the evidence furnished to the Public School Commissioners.

[1] *Vide* Appendix.

I will also quote the evidence of the one man of European fame, who is practically acquainted with the English and foreign systems of education, and with their results, the Professor of Modern Languages in the University of Oxford.

Perhaps a generation which has laughed with Mr. Lowe can compose themselves to be serious with Max Müller.

"35. I suppose there is no method which you could suggest by which fluency of speaking a foreign language could be acquired at our public schools?—No; and I think the experience of continental as well as English schools is against attempting to impart to schoolboys a conversational command of the language.

"36. You say the experience of continental as well as English schools: has the experiment been often tried by them?—In some of them the experiment has been tried.

"37. And what have you heard has been the result?—I was brought up myself at a German school, and the experience there is exactly the same as in England, namely, that all that can be done during the short time that can be spared for the study of foreign languages is to give the pupil a good grounding in grammar, and the mastery of a sufficient number of words, to enable him to read a newspaper, or an historical author in French or English. Beyond accomplishing this, the German schools have certainly never succeeded.

"41. (LORD CLARENDON.) You say that you are aware that attempts have been made in Germany, in some of the German schools or gymnasia, to acquire or impart fluency in some of the foreign languages, especially, I suppose, English and French?—It has been attempted at the Real-schulen, not in the gymnasia, I believe.

"58. Why would you propose that the principal French master should be an Englishman?—Because I believe that an Englishman knows what the boys know in Latin, and also knows the difficulties which an English boy has to encounter in acquiring a new language.

"59. And perhaps you think he would be better able to maintain discipline?—Certainly.

"60. And the respect of the boys?—Certainly.

"61. But you would have the teaching of the pronunciation, and perhaps the idiomatic part of the language, left to the French assistant?—Yes.

"63. Would you apply the same system to German?—Certainly.

"64. You would make no distinction between the teaching of German and French?—No, I should not.

"89. With regard to the general question of learning languages, assuming as we do that the study of the laws of language, and the scientific study of language, is of great importance in early education:

do you agree in the opinion that language is better studied in Greek and Latin than in any other language ?—I do.

" 90. As being a dead language, it is complete and definitely scientific ? —Yes.

" 111. About the time of leaving the Gymnasia, you consider that Germans are not superior to the English at the time of leaving public schools. Is it the case or not, that in the higher ranks of society, you will find a German speaking French, as an adult, better than you will find an Englishman of the same rank ?—I think it is impossible to speak generally on such a point. It may be so in some parts of Germany, near the Swiss or French frontier for instance, but it is impossible to speak generally.

" 112. As a general rule, it is impossible to say that the Germans, as a people, speak French better than Englishmen speak it ?—Certainly not in Pomerania. At Aix-la-Chapelle or Treves they do.

" 113. From contiguity, I suppose ?—Yes.

" 116. You do not think that there is any great difference between the two countries in respect to the knowledge of each other's language ? —I think it is more for the interest of Germans to learn English than it is for the interest of Englishmen to learn German ; but I doubt whether English is taught as much at the German gymnasia, as German is at the public schools in England. I was at a very good gymnasium at Leipzig, but there was no English taught, and the French lessons were almost useless.

" 120. It is, therefore, more to the interest of the middle, and especially the innkeeping class of persons, to speak English and French, than it is for such persons in England to speak French or German ?— Yes ; but the effort of speaking among the lower class of people is totally different from that of educated people. For example, servants and couriers speak French very well, simply because their sphere of thought is very narrow, very limited indeed ; whereas, an English boy who learns French, wants to speak in it on every possible subject.

" 167. You do not think it (the study of Latin and Greek) is intrinsically of less importance than it has been since the revival of letters, having regard to the questions that are occupying men's minds in philosophy and other subjects ?—I think both educationally and socially it is more important than ever it was. I may, on this point, quote the words of Frederick the Great, one of the greatest admirers of French ; he said, 'Whatever you do, do not let a boy grow up without knowing Latin.'

" 168. Has not Goethe said something of the same kind ?—In spite of his great partiality for physical science, I believe that Goethe would have grudged every hour taken away from Greek and Latin, in the education of boys at school."

To read articles in newspapers, it seems that the general impression on the public mind is this, that Mr. Lowe has made several mistakes, but upon the whole, that his main positions and facts cannot be gainsaid. I ask any lawyer, has he a case? has he a leg to stand upon on one single count of the indictment which he brings against the linguistic studies of English schools and universities? His reasoning is half banter and half sophistry. He neglects experience, he mutilates facts, his illustrations are suicidal. I ask any one who takes any serious interest in the cause of education, who has gone with me thus far, to take nothing that I have said for granted, to look up calendars and blue-books and official statements, and above all to read right through the invaluable evidence of Max Müller, of which I have quoted a part, and of which I regret that I have not space to quote the whole.

We have already seen how Mr. Lowe treats the Muse of History, and I will leave her to fight her own battles against the statesman, who, weary of acting the part of Cassandra, appears to be studying that of Alaric. But I do not see for what purpose, except to raise a foolish titter, he ventured on such a statement as this, "We find a statement in Thucydides, or Cornelius Nepos, who wrote 500 years afterwards, and we never are instructed that the statement of the latter is not quite as good as the former." Are the higher class schools of Great Britain officered by blockheads and nincompoops? I trust, at least, that one result of the present agitation may be, that intelligent audiences will for the future protect one of the four learned professions from gratuitous and unmeaning insults.

Mr. Lowe's treatment of geography need not occupy us long. We ought not to teach anything about Halicarnassus, we ought to teach something about Gondar: an aggregate of African mud hovels having, in Mr. Lowe's eyes, more claim to honourable mention than the still flourishing birthplace of the Father of History. Another instance falls strangely from the lips of the apostle of modern and secular education. Schools have been so careless of their duty that many educated men know nothing about the Cave of Adullam. Personal associations appear to have been too much for even Mr. Lowe's consistency.

Another speaker, I forget who, has attacked us for the absurdity of teaching anything about Jehoshaphat. I fear we shall not please everybody. I cannot agree with Mr. Lowe that it is as important to teach at school the names of such places as Magdala, as it is "to know there were twenty-three cities of the *Volscians* in the Campagna of Rome." To be the sole possessor of such a piece of information, concealed alike from the credulous inquisitiveness of Livy and the philosophic research of Niebuhr and Mommsen, must be especially interesting. What we have regarded as a transient wave of Oscan inroad, sweeping over Latium like a flood, making the cities of the Campagna as much Volscian as Lombardy is Austrian, or Edinburgh Highland, turns out to be the return of dispossessed exiles, and the discomfiture of intruding Latins. It is difficult to know whether most to regret Mr. Lowe's previous reticence, or to admire the modesty with which he disclaims the importance of his discovery.

But just suppose for one instant that Mr. Lowe is mistaken. He might be. It is as possible that he forgot a bit of school learning about Latium, as that Castlereagh forgot Java, or that somebody else's memory failed him about Upper and Lower Canada. The fact of the matter is, that there is nothing more useless for practical purposes in after life than the faded recollections of mere names. Mr. Lowe elsewhere says with ridiculous exaggeration, that men forget all their Greek before they are thirty, and he now seems to think that if they learnt modern geography instead, they would remember all the villages in Africa to their dying day. I am convinced that no sort of teaching requires to be more carefully watched and limited at schools than a certain sort of geographical cram, fostered by a demand for what is miscalled "useful knowledge." I have met with boys whose minds resembled a bag, into which all the long names on the maps, from Bight of Benin to Popocatapetl, had been thrown promiscuously, bruised and indigestible, like the plums in a plum-pudding. But I think that the details about the cities in the Campagna did at one time form the scaffolding of what still remain in Mr. Lowe's mind, as in the minds of other well-educated men, as solid and imperishable monuments. Has he forgotten how Rome's contests with

those Volscian Highlands were the very test by which he learnt the untrustworthiness as to matter of fact of traditional history? Has he forgotten how among the cities of that Latin plain Rome inaugurated the policy by which she first cajoled, then conquered, then consolidated the nations of her empire? How to city after city she stretched out the warm hand of alliance, which gradually stiffened into the iron grasp of supremacy, fulfilling the words of the prophet, "By peace shall he destroy many?" How she broke up the weakened league into crumbling fragments, and then bound them to herself by her colonies and institutions, "like iron in the midst of clay?" Has he forgotten again how on that very plain troops of chained slaves tilling that land, which the thriving dwellers in the cities had tilled before, told to the elder Gracchus a tale at once of present danger and of future degeneracy; and again, how the green houseless undulations of the Campagna now tell to one who has known of its ancient cities, of historical revolution and of social change?

In saying what I have done about the worthlessness of learning geographical names, let me not be misunderstood. The chief countries and nations of the world, the capitals of Europe and America, and the counties and chief towns of Great Britain, should be learnt where the kings of England are learnt, before a boy leaves home, or at his preparatory school. Ancient geography should be learnt at school, and I fancy is so learnt, not by itself, but in illustration of classical authors and ancient history; and the knowledge of modern geography, which no boy ought to have failed to acquire by the training of home and of cultivated society, ought to be extended and connected by a course of physical geography. Knowledge about mountains, winds, climates, rain, etc., such as is given by Mr. Keith Johnston's admirable little handbook (the only fault I have with which being, that it is a little too full in its minor details), is most valuable in itself, as well as valuable as a training in habits of observation and reflection; but the subject certainly requires an intelligent interest in the master who might otherwise be perversely ingenious enough to teach even the chapter on Climate as a bit of cram; but from this

possible evil no subject which I know of, except classical composition and mathematical problems, is entirely exempt. Physical geography naturally leads us on to physical science generally. I will again let Mr. Lowe speak for himself:—"I have spoken only of modern history, of modern languages; but what are modern history and languages compared with the boundless fields that nature opens out, with the new world which chemistry is expanding before us, with the old world that geology has called again into existence, with the wonderful generalizations with regard to plants and animals, and all those noble studies and speculations which are the glory and distinction and life-blood of the time in which we live, and of which our youth remain, almost without exception, totally ignorant!"

In this sentence Mr. Lowe manages to make an assertion which is untrue and to imply a theory which is impracticable. It is not true that physical science is neglected in higher class schools; it is not practicable to teach many branches of physical science to boys. Perhaps it may seem consistent with the sentence I have quoted, to suppose that all that Mr. Lowe means is, that schools should initiate boys into the general methods and conceptions of physical science, so as to give them a starting-point for the acquisition of specific information afterwards. His Liverpool speech removes all doubt as to his meaning. Our education is defective, because what a boy has learnt at school does not enable him to suspect the presence of gold from the appearance of hills! And then comes in the "practical mind from California," just as the practical German waiter came in before. Why, it is not enough that the new generation shall be able to talk like couriers; they shall unite the theoretical knowledge of the chemist, the anatomist, the geologist, and the mechanician, to the practical insight of the analyst, the bone-doctor, the miner, and the engineer.

I don't know what the spleen is, and neither for that matter does Mr. Lowe; but it rouses what is commonly called the spleen in me to see Jack-of-all-trades divorced from his old belongings, and identified with the wise man of the Stoics, who, however, knew shoemaking only *in Posse;* and this one is to know gold-diggings *in Esse.* And this misguiding folly does not end with Mr. Lowe; it is echoed from mouth to

mouth. As in an Essay[1] which might be called elegant trifling, if Lord Houghton could be guilty of such a thing, we read, "It is admitted that he may become a landed proprietor without a notion of agriculture, a coalowner without an inkling of geology," etc., to which we may add, "Yes; and a tailor without having learned trouser-cutting, a bather without having learned to swim."

Is physical science not to be taught in schools? By all means, I answer. And I believe that, notwithstanding the provision made for it, to take England alone, at Rugby, at Harrow, at Marlborough, I would say at every great English school, only that I am not sure about the present state of Eton (but nothing for the good of Eton will be long untried by one who unites manly vigour to educational skill and intellectual eminence, as its present head-master, first-class man, and "double blue," does unite them), notwithstanding the lavish expenditure of Oxford on museums and laboratories, and the generous recognition which has opened more rewards for eminence in physical science than there are qualified men to fill them, I believe that the methods of physical science deserve a more definite, a more settled, and a more universal place in the mental training of our youth than they have yet attained.

But there is no division of the subjects of study, which, partly from its vastness and multiplicity, partly from the full development and previous training of the logical faculties required for the conception of its higher and even its medial abstractions, partly from the ease with which, by ingenious teaching, a knowledge of many branches can be simulated by speedily forgotten cram, requires more careful selection, more practical knowledge of boys' powers of conception, more conscientious teaching, than physical science. Let us hear the caution given in what the *Times* rightly calls "the Manifesto of the Anti-classicists," who are no more like Mr. Lowe than Mirabeau was like Danton. I quote from what I may call (without, by any means, agreeing with him on many subjects, especially on the place he assigns to botany as a school subject) the eloquent, practical, and suggestive essay of Mr. Wilson.

"The mental training to be got from the study of science is

[1] *Essays on a Liberal Education*, p. 378.

the main reason for its introduction into school" (p. 264), "geology and chemistry are frightfully crammable" (p. 270).[1] "Physiology cannot be taught to classes in schools, nor ought it to be learnt before physics and chemistry. A most enthusiastic advocate of physiology at school talked over the subject with me at Rugby. Practical work he admitted was necessary, and that it was impossible. I could not give my class forty rats on Tuesday, at 9.15, to dissect for an hour, and then put them away till Saturday at the same hour" (p. 284).

But any one who takes interest in the subject should read Mr. Wilson's essay, remembering, however, that there are few men in the country with the knowledge and special genius of Mr. Wilson.

I will merely add, on a subject which is too much one of detail to be treated at full here, that by the adoption of the admirable Harrow plan of making modern history a vacation subject, by postponing the beginning of geometry till a boy's reasoning faculties are developed, and by concentrating the study of French as a literary language into a short and late period of the school curriculum, quite sufficient time can be given out of our weekly thirty-six or thirty-eight hours for the study of those branches of physical science which should be taught in schools.[2]

An increase of these hours would, I am convinced, be fraught with most injurious effects. When Mr. Sedgewick remarks:—"The transition from the study of language to the study of external nature would give so much relief that it would be possible for a boy to spend more time in his studies, on the whole, without the danger of injurious fatigue,"[3] I see plainly enough a proof of the tendency of the "Modern Muses" to desert Helicon and Olympia for the laboratory and the dissecting-room. If such is to be the result of teaching physical science, we are far better without it. Let work by all

[1] *Essays on a Liberal Education*, Essay VI.

[2] I agree most cordially with the *Times* reviewer (*Times*, 6th February 1868) in thinking elementary astronomy, mechanics, and the rudiments of experimental physics, as the best adapted for this purpose. I have also thought occasional chemical lectures, illustrated by interesting experiments, a good thing for amusing and opening boys' minds, but must deprecate making chemistry a subject of formal school instruction and examination.

[3] *Essays on a Liberal Education*, p. 137.

means be hard while work lasts, but as we value the strength of the developing brain, let not the hours of work exceed six or seven per diem. I confess I grudge every additional hour taken from that free social intercourse which has moulded the manner and character of British gentlemen, and from those noble sports, the organized growth of centuries, which have done so much to perfect the pluck, the energy, and the endurance which characterize the educated men of the British nation above the educated men of any other modern time or country.

Well, Mr. Lowe has said nothing about physical education. He has not spoken, as he might well have done in two speeches on British Education, of the real mental and moral training, of the scientific skill, the habits of order and discipline, fostered by the cricket-field, the football-ground, the running-path, the gymnasium, and the eight-oar. Neither has he said a word about the influence on the refinement and harmony of the mental powers of a training in art, especially of that most social and most educative of all arts, which is being rapidly borrowed from Germany, or rather revived in England, —the art of choral singing.

It is all knowledge; cold unhumanizing uneducating knowledge. For when he sums up by saying "that our education does not communicate to us knowledge, that it does not communicate to us the means of obtaining knowledge, and that it does not communicate to us the means of communicating knowledge"; the knowledge of which he speaks has nothing in common with the reward proffered to the hesitating shepherd—

> "Self-knowledge, self-reverence, self-control,
> These three alone lead life to sovereign power.
> Yet not for power (power of herself
> Would come uncalled for); but to live by law—
> Acting the law we live by without fear,"

but is rather what we hear was ever nearest the heart of the prototype of the "practical mind from California"—

> "The least erected spirit that fell
> From heaven! for even in heaven his looks and thoughts
> Were always downward bent, admiring more
> The riches of heaven's pavement, trodden gold,
> Than aught divine or holy, else enjoyed
> In vision beatific."

APPENDIX.[1]

THE higher schools which exist in Prussia are divided, generally speaking, into two classes, called respectively *Gymnasien* and *Real-Schulen*. These two classes differ from each other in their object, the business of the former being to prepare boys for the Universities, and for those pursuits in life to which university studies are a necessary introduction; that of the latter to educate boys not designed for the Universities. They differ, therefore, also in their course of instruction, the studies of the latter being of a more "positive and objective" kind than those of the former. But they do not differ in the principles on which their respective *curricula* are framed; that principle being, in each case, to aim at the thorough preparation and cultivation of the mind for its future work, whatever that work may be, rather than at the imparting of such knowledge as may be immediately and practically useful. They are not *Fachschulen*—not mere places of training for particular callings or professions. And they are, "before all things, German and Christian."

No person can enter himself as a student of any Faculty at any University, nor qualify himself for a degree in theology, jurisprudence, or medicine, nor aspire to any office or employment in Church or State, for which a course, whether of three or of four years, at a University is a legal prerequisite, nor enjoy any of the public *Beneficia* or Exhibitions founded for the assistance of University students, unless he has passed with success a certain examination, called indifferently the *Maturitäts-prüfung* or *Abiterienten-prüfung*, which is held at a *Gymnasium*, conducted in a great measure by the masters of that Gymnasium, and arranged with direct reference to its studies.

The few strictly commercial schools which exist in Prussia are private enterprises, which have obtained on the whole no great success. It is far more usual for men in trade (*Kauf-Leute*) to send their sons intended for a similar career to a *Gymnasium* or a *Real-Schule*. "Persons capable of forming a judgment among the commercial and industrial classes often express the opinion, as the result of their own experience, that a well-ordered general education (*ein geordneter allgemeiner wissenschaftlicher Unterricht*), without special regard to the boy's after-

[1] Extracted from *Report of Public School Commissioners*, vol. ii. p. 50.

vocation, such as is afforded by the *Gymnasium*, and in a somewhat lesser degree by the *Real-Schule*, proves more practically useful, even for an industrial calling, than the instruction afforded by special professional schools. Young men, liberally educated, show, as a general rule, after a short time, more capacity and sounder judgment even in practical pursuits than those who have had an exclusively practical training, and have made themselves masters of a superficial routine (*eine äusserliche Routine*)."

In the teaching of the *Gymnasien* the boy's future vocation is never taken into account, except in the article of Hebrew. It is deemed to be of the highest importance that the fundamental elements of a good general education should be imparted, without reference to the future practical application of the knowledge thus bestowed. School directors and teachers are expressly forbidden, for instance, to lower or vary the general standard of work in the case of boys intended for the army. On the other hand, the individual capacity of each boy is to be considered as far as possible. Thus in the Final Examinations superior proficiency in mathematics is allowed to compensate for inferiority in languages, and *vice versâ*.

No dispensation from the study of Greek is hereafter to be allowed, except, with the approval of the Provincial *Collegium*, in small towns where there is not, besides the *Gymnasium*, a *Real-Schule* or a *Höhere Bürger-Schule* in which Latin is taught. Whenever such a dispensation is granted the boy is to be informed that he is thereby excluding himself from the final (*Abiturienten*) examination.

The object of the examination is to ascertain what the boy really knows, and what he can do; what he has really acquired and made his own (*nur dasjenige wissen und können welches ein wirkliches eigenthum des Schülers geworden ist*); a result which is the slowly-ripening fruit of steady and regular diligence, and cannot be gained by hurried exertion during the preceding few months, much less by confusedly learning by rote a mass of names, dates, and incoherent facts. It is to be so conducted as to exclude all inducement or encouragement to special preparation or "cram."

The examination is partly in writing and partly *vivâ voce*.

The "paper work" lasts three days (not consecutive) and consists of the following particulars, for which certain periods of time are assigned :—

A German essay (5 or 5½ hours in a forenoon). The Amending *Réglement* strongly inveighs against the common error of setting a thesis which is too abstract, or beyond the boy's mental reach.

A Latin essay (5 or 5½ hours in a forenoon).

A Latin *extemporale*, or translation from a piece of German dictated on the spot (2 hours).

A short and simple piece of Greek writing, similarly set (2 hours). This was substituted in 1856 for a translation into German from some Greek author not read in the school. The Commissary may require both Latin and Greek translations to be set in his presence at the time of *vivâ voce.*

A translation of a "not too hard" exercise from the French (3 hours).

A task in mathematics and arithmetic (4 hours in a forenoon).

NOTE.—Since writing the above, I have read the report of the Glasgow meeting. As an Episcopalian, and with no personal predilections for the Shorter Catechism, I must say, that I would consider it a very great hardship to be taxed for the maintenance of Godless schools, and I think it no hardship at all to be taxed for the maintenance of the parish schools; and as a schoolmaster, I feel the most sincere commiseration for those of my brethren who, if Mr. Dalglish's views prevail, are to be transferred from the rule of the parish minister to the rule of a committee of ratepayers. No man can do his work well if subject to the continual interference of a committee of management. But the attitude of members of other Presbyterian bodies, who having precisely the same standards as the Established Church, wish to meddle with the parish schools, is to me totally incomprehensible. Unless a schoolmaster were to discuss the question of patronage to the children, what harm could happen to a Free Church child in a parish school? A factious Episcopalian might have a case; Free Churchmen and United Presbyterians have none. But there are men among them (I trust not many) who would burn down the house, not from reasonable anticipations of roast pig, but from pure incendiarism. This is not the respectable old malady of *odium theologicum.* I fear it is a species of sectarian *cacoëthes*, peculiar to the Scotland of the nineteenth century.

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