

able or a mineral, it is but a lame excuse, either to himself or them, that he is not a botanist, or a chemist. Nor is it necessary at all that he should conceal from his pupils that he is in the habit of studying the lessons which he has set them to learn. Far otherwise, provided he has a comprehensive knowledge of his subject—and boys are quick enough soon to discover this—they will rather love and honor him for putting himself in the position of a fellow-worker with them when they see that he does not spare industry on his own side, while exacting diligence from them. A master who is the oldest, cleverest and most conscientious boy of his class cannot fail to succeed with them.

But is there to be no limit to the range of a teacher's studies. I must reply that the only limit should be his powers of acquisition. His attention having been given in the first instance to what is his special business, he should next proceed to make himself familiar with all the subjects included in a liberal school course.

By so doing he will not only add to his usefulness but increase his influence throughout the school. Boys are, naturally enough, disposed to look down upon a master who is without a knowledge of any subject in which they themselves have made some progress. A teacher should therefore not be satisfied with accuracy in one or more specialities. He should also possess that general knowledge which it is the aim of most schools certainly of all good schools to impart.

The education which a parish school boy receives is *general* though it stops at the age of ten. That which is given in middle class schools is continued to a later period but it also is *general*. So also in High Schools and even in a University those students at any rate who matriculate for a degree—and all others I fear do but little good—are required to follow a course which is *general*.

Why then should a teacher rest satisfied with being an intellectual machine wound up from day to day to perform certain work.

There is the danger, it will be said, of a man's acquirements proving superficial if his energies be spread over too large a field. True, knowledge has in the course of time grown from a point into a line, from a line into a superficies and it is hard work for us who live in the later time to add that third dimension either for ourselves or our pupils which will give it solidity. But we must take things as they are, and it behoves every teacher to measure his powers, determine how much he can do, and do it.

Charles Lamb in his essays of Eba has given us a lively contrast between the old and the new schoolmaster. He amuses first with a picture, purposely exaggerated, of his own ignorance of common things. "My reading has been lamentably desultory and unmethodical. In every thing that relates to science I am a whole Encyclopædia behind the rest of the world. I know less Geography than a school boy of six week's standing. To me a map of old Ortelius is just as authentic as Arrowsmith. I do not know whereabouts Asia merges into Africa. I have no astronomy. I guess at Venus only by her brightness. And if the sun or some portentous moon were to make his first appearance in the West, I verily believe that while all the world were gasping in apprehension about me, I alone should stand unterrified from sheer incuriosity and want of observation &c."

He then gives a description of his being caught in a suburban stage-coach by a staid-looking gentleman on the wrong side of thirty who during the journey probes him on a dozen subjects about which his ignorance is only equalled by his indifference. To use an expression of his own, he gets thoroughly entangled in this man's mind. Relieved by his getting out of the stage he finds by a question put by his tormentor to an outside passenger about an epidemic in schools round Dalton that he has been the Examinee of a schoolmaster. He thereupon gives us the contrast of old and new.

"Rest to the souls of those fine old pedagogues: the breed long extinct of the Lyllys and Linacres, who believing that all learning was contained in the languages which they taught, and despising every other acquirement as superficial and useless, come to their task as to a sport! Passing from infancy to age, they dreamed

away all their days as in a grammar-school. Revolving in a perpetual cycle of declensions, conjugations, syntaxes and prosodies; life must have slipped away from them at last like one day..... The fine dream is fading fast and the least concern of a teacher in the present day is to inculcate grammar-rules.

The modern schoolmaster is expected to know a little of every thing because his pupil is required not to be entirely ignorant of anything. He must be superficially, if I may say so, omniscient. He is to know something of pneumatics; of chemistry, of whatever is curious or proper to excite the attention of the youthful mind; an insight into mechanics is desirable with a touch of statistics, the quality of soils and botany, the constitution of his county, *cum multis aliis*. You may get a notion of some part of his expected duties by consulting the famous Tractate on Education addressed to Mr. Hartlib.

All these things—these or the desire of them—he is expected to instil, not by set lessons from professors which he may charge in the bill, but in school-intervals, as he walks the streets, or saunters through green fields (those natural instructors) with his pupils. The least part of what is expected from him is to be done in school-hours. He must insinuate knowledge at the *mollia tempora fandi*. He must seize every occasion—the season of the year—the time of the day—a passing cloud—a rainbow—a waggon of hay—a regiment of soldiers passing by—to inculcate something useful. He can receive no pleasure from a casual glimpse of Nature, but must catch at it as an object of instruction. He must interpret beauty into the picturesque. He cannot relish a beggarman, or a gipsy, for thinking of the suitable improvement. Nothing comes to him not spoiled by the sophisticated medium of moral uses. Vacations themselves are none to him, he is only rather worse off than before. For commonly he has some intrusive upper boy fastened upon him at such times, some cadet of a great family, some neglected lump of nobility or gentry; that he must drag after him to the play or the Panorama or into the country or to a friend's house or his favourite watering place.

Wherever he goes, this uneasy shadow attends him, a boy is at his board and in his path and in all his movements. He is boy-rid, sick of perpetual boy.

But to return, a teacher cannot afford in these days to rest satisfied with having acquired the mastery of his especial subject as regards its general principles its details and the history of its rise and progress. This must be his first aim, but he should, so to speak, make frequent raids into other domains of learning and carry off spoils with which to enrich his own. No department of human knowledge can boast itself independent of the rest. Cicero in his oration for the Poet Archias truly says:

"Etenim omnes artes, quæ ad humanitatem pertinent, habent quoddam commune vinculum et quasi cognatione quadam inter se continentur" all arts which tend to humanize have a certain common bond of union, and are held together by a certain tie of kindred, so to speak.

We teachers would find our account in not losing sight of this, for by excursions studies, we gain information which enables us to enliven our especial lesson with illustrations drawn from other subjects, such explanations not only come in as agreeable relaxations from the emulation and competition going on among the studious and diligent pupils of a class, but they frequently excite interest in the careless. For it is easier to arouse the attention of boys, perverse animals that they are, by advancing something which is not in the task of the hour, than to maintain their attention to that which is there. I had some difficulty one day last week in getting a pupil through a sentence of Cicero in which one relative clause was involved in another. Bidding him observe that there were double brackets in the sentence, I wrote it out on the black board in an algebraic form, and I am satisfied that this explanation succeeded better than any other I could have given, not the least advantage of it being that my young friends were amused by finding that Algebra could be employed to illustrate Latin. Mr. Somerville has written a charming and popular book on the "Connexion of the Sciences," but it is not only the sciences