

hasty "guesses," in place of a habit of drawing legitimate conclusions. I pointed out that men of all classes, learned and unlearned, are in the habit of "jumping" at conclusions, and why not children? Mr. Haultain's letter in *The Week* is a curious instance of how a scholarly man may "waltz" to a conclusion to the accompaniment of Shakespearian music. After reading "more than a thousand" of the answer papers of candidates at the recent University and Departmental Examinations, Mr. Haultain reaches the astonishing "conclusion" that such candidates "were taught by men and women who could not themselves talk or write correctly." It would be difficult for the smallest boy in a beginner's science class to equal this big jump of Mr. Haultain's. Apparently he does not see that his conclusion is quite irreconcilable with the fact that three-fourths of the teachers whom he condemns so unceremoniously are graduates or under-graduates of Toronto University, some of them his peers in any department of learning, others his superiors. Unless he wishes his conclusions and generalizations to become the laughing stock of the public, he must take care that they are based upon sound reasoning and admitted facts.

HOW NOT TO DO IT.

There is one method of teaching science that should not be tolerated in our High Schools even for a day. I refer to the lecture method. Young teachers particularly need to be cautioned against it, because it is one which is extensively followed in our Universities, and which young teachers will naturally adopt if left to themselves. There is probably no better way of communicating knowledge to adult students than by the lecture system. It has stood the test of ages in all departments of collegiate work, and is not likely in our time to be superseded by a better. But while admitting that this is true as regards college or university work, I cannot impress too strongly on young teachers, full of enthusiasm and fresh from college methods, that the lecture system when applied to ordinary high school work is a huge

mistake. The aim of the university lecturer and of the high school teacher is entirely different. Their methods therefore must be different. Can we learn anything from the history of school methods? Surely. Twenty or thirty years ago the lecture system was thoroughly tested in some of the best American schools and it proved an utter failure. Why perpetuate in Ontario a method which has been tried and abandoned elsewhere? To begin with, taking notes of lectures spoils a pupil's penmanship. The average high school pupil gets wrong ideas from lectures, and he expresses these ideas, in his note book, in very bad English. His note book, some way or other, is hard to find when most wanted. The ordinary pupil will do little thinking for himself, and lecturing to him till doomsday on any subject will never make him think. Of course if a boy is not made to think he is not being educated. As well lecture to the wind. The lecture system disappoints and disgusts the true teacher; it wastes the pupil's time; it imparts no substantial information; it stimulates little thought; it gives no education.

Nor do these remarks apply exclusively to science teaching. For three years I watched an honor graduate and gold medallist teaching his favourite subjects. He lectured so lustily that he was often heard three blocks away from the school. His pupils had wonderful confidence in his scholarship and ability to teach, and yet, at the end of three years the standing of the school in classics was lower than when the teaching was done by a mere pass man. The head master then interfered, and insisted that his classical assistant should do less of the work himself—in short, should cease lecturing—and make his pupils do more. The result was that at the end of the next year the university examiner congratulated the classical master upon the vastly improved character of his work. I speak from fourteen years' experience, and I have no hesitation in saying that the lecture system as applied to ordinary high school or public school work is pure and unadulterated fraud in every department. Even in the universities it is not a complete