

to some extent, the use of textbooks and other reading matter. We encourage but little, if at all, the spirit of finding real knowledge; or otherwise put, we encourage little the spirit of investigation. How is it possible—to go no further—to educate men who are kept occupied almost wholly in the mere getting of information or absorbing from 8 a.m. to 6 p.m., as is the case with the present third year class? There can be no healthy mental state under these conditions.

We should look the facts fairly in the face and reform our ways greatly, if not altogether. We should substitute education or development for the gathering of information with a minimum of development. This will imply our seeming—to superficial observation—to do less, but in reality to our accomplishing much more.

McGill may be hampered by the condition of things existing elsewhere, but unless we are blind to our failures reforms should begin at once. I have had the opportunity to test these principles on several occasions among our students and with the best results. But I have been helpless as regards any radical changes such as I believe are called for, though I have long profoundly distrusted that treatment of students, which, unfortunately, as I think, seems so satisfactory to many teachers.

You will now, if I have succeeded in making myself clear, understand the better the recommendations I am about to make. Physiology, though it is one of the great essentials in all sound medical education, is a sort of shifting sand heap. There is scarcely a single principle, perhaps not one, that is not liable to be changed any day by new investigations. This state of things is partly due to the inherent difficulty of the subject, and partly to the fact that confirmations of original researches are not encouraged and are rarely mentioned except incidentally. It results that most teachers must present to their students facts and principles on trust, for the field that any one man can cover with really valuable and wholly new investigation must be very limited. For six or eight years I have myself largely confined my investigations to the experimental examination of what I had to teach. This has not led to publication that brings reputation, but it has enabled me to be a much more helpful guide to my students especially in those departments of the subject which I have been able to work out by experimental investigation.

It seems to me that the time has come for a further evolution in University teachers. We can no longer expect the one man to be at the same time the highest kind of teacher in the sense in which I use the term in this communication, and also a first-class investigator making really important original discoveries. I would remind you that here in McGill we have had a department in which this differentiation led