

Now, it is submitted that this is not such a limited course as these men would have the uninitiated to believe; that it is, in fact, the work prescribed for the *first year* in Toronto University, and that there is scarcely a limit to the number of questions that might be set on the subject; and judging from the kind of questions set by both Kirkland and McLellan, it is, on the whole, not elementary in its character. For example, "*Marsh's test*" is not a subject of investigation in Elementary Chemistry, and is not found in Roscoe; it is an experiment requiring the utmost skill, and should not be attempted by beginners at all; exception might be taken to *iodine* and *bromine*, on the ground that they are not *common* subjects of investigation. Questions on these subjects occur frequently in examination papers set for graduates in medicine, but they are not met with in the papers set for the first year at the University. Sulphuretted hydrogen as an impurity of water is found chiefly in regions where iron pyrites are decomposing; it is a common impurity of many spring waters throughout the whole of the geological formation from Niagara Falls to Manitoulin Island. If it is not a common impurity, why does Dr. McLellan ask out of the way questions?

In point of difficulty, the questions constituting the examination papers are, on the whole, above the average questions set on the limit prescribed; and it is simply impossible to compress within the compass of the notes taken by some of the Normal School students, the substance of such a wide range of study as the examination questions indicate. Supposing we accept Mr. Kirkland's statements that his questions, as shown in Brown's note-book, are common questions, how did he know that these few *common* questions were the ones likely to cover the examination papers? Does he claim superhuman prescience?

In view of the fact that these men characterized the work required for first-class certificates as very elementary, we may well ask why there are no questions on the *structure of flame, combustion, composition of the atmosphere* and the economy of its constituent gases, the composition of *water* and the methods of analysing it? Whoever saw a paper on Elementary Chemistry that had not some allusion to *carbon* and its modifications; or to the elements *hydrogen, nitrogen, oxygen, and chlorine*; or to *sulphur* and its modifications? Surely a question on combining proportions by weight and by volume, symbols and nomenclature, might be looked for on a paper on *Elementary Chemistry*. We find no question in Dr. McLellan's paper for 1874 bearing even indirectly on any one of the important features of Elementary Chemistry mentioned above. How did Mr. Kirkland know to omit these same subjects in preparing *his* list of 21 questions? How did he and Dr. McLellan come to overlook in their papers (prepared independently, of course) *silicon*, next to oxygen the most abundant element known? Why did they not include in their papers a question on *lead, gold, silver, mercury, copper, zinc*, as well as one on tin? What points in Elementary Chemistry do these men consider important if not these? Why do they each give a question on sulphuric acid and not one on hydrochloric? How is it that wherever the one goes for the subjects of his questions, the other happens to go there too?

If Kirkland's questions are common ones, and are prepared with the view of covering any and all fair examination papers on this limit, then we should find them on good examination papers prepared by other examiners. Now, what are the facts? In 33 examination papers on the same range of subjects, set for students of the *first year* in Toronto University, we find no fewer than 32 examination papers in which not a single one of Kirkland's questions occurs. There are—