

extremely interesting to a non-scientific observer. This branch has been kindly undertaken by the Professor of Pathology, Dr. Wilkins. This gentleman has imported, at great expense, the requisite instruments, which, I believe, are not to be found elsewhere in the Dominion. It is but right to state that the establishment of these lectures is entirely due to the energy and enterprise of that gentleman.

Passing onwards to the closely allied subjects of chemistry and materia medica, the thought suggests itself that here also there is room for improvement. I do not imply any reflection upon those gentlemen who so ably fill their chairs, for I know that none could better expound those requirements which it is thought necessary at present to demand of the student; but I consider that much might remain undone, and those parts which relate to the druggist be left to the latter, and others included in the preliminary education.

Chemistry, as a science, probably first originated about the year 721, in the laboratories at Bagdad, which were erected for the purpose of preparing medicines. Its evolution, however, has been gradual. Passing on to the labors of the alchemists of the middle ages, who discovered many important chemical compounds, as well as many of the most valuable medicinal agents. This was not their professed object; the hypothetical elixir vitæ or philosopher's stone was the magnet which drew them on, so that from beginning to end, their discoveries were the result of chance. Still, by the familiarity engendered with many natural substances and the insight into their composition, these labors paved the way for the grander discoveries of later days. In 1760, alchemy received its death-blow and chemistry became a science. The discovery of the use of the balance, by Lavoisier, being the birth of the embryo which was nourished in darkness. Since then how rapid has been its growth, and what wonderful substances have been discovered by such patient investigators as Dalton, Gay Lussac, Berzelius, and after them many others, among whom Faraday is not the least. It is chiefly in organic chemistry that discoveries have mostly occurred, and our materia medica has been greatly enriched thereby. Chloroform, chloral hydrat, and other remedies of the same class are among the products thus produced. If you reflect for a moment, the fact may appear astonishing, that nearly all these new remedies act directly on the nervous system, either as anæsthetics, anodynes, or sedatives. They are discovered, as it were, because in this age of steam men live faster and waste more

nervous energy than did their forefathers, and therefore required such special remedies. Chemistry, in presenting us with anæsthetics, conferred the best gift that medical science has yet received. Sir W. Ferguson observes: "I see nothing which has transpired in the present century, which, in magnitude or importance, can compare in our annals with anæsthesia; and, in my mind, it ranks in value to mankind scarcely less than the results of the labors of Harvey and of Jenner." In materia medica vague ideas still exist as to the action of many remedies, powers diametrically opposite being often ascribed to the same remedy with the same dose; and though great advances have been made during the past few years, much still remains to be discovered. Every year marks the advent of some new drug, which either enjoys an ephemeral existence or takes its place among established remedies. The bromides, chloral, carbolic acid, are instances of the latter. Drugs are the instruments by which you combat disease, and it is not in being acquainted with a vast array of these that will bring you success, but the thorough knowledge of those you do use. How drugs are obtained or compounded is of little importance to you, the pharmacopœa provides for that; but avoid forming multifarious recipes and incompatible mixtures, which alike indicate ignorance of therapeutics and the art of prescribing.

I have thus passed in review the four subjects which are called primary, a just appreciation and knowledge of which will enable you to understand those other branches which are denominated final. In the first lies the foundation of your studies; in the second, the practice of your lives, and of which you must ever remain students. The tripartite division into medicine, surgery and obstetrics, is merely arbitrary, and the tendency of the present time is to combine them in practice; though there are those with a peculiar bias of mind, which leads them to follow one of these more closely than the others. This combination is but rational, seeing that it is impossible to mark the dividing line between them, a knowledge of each being necessary for the proper application of treatment to disease. Monks are no longer physicians, barbers surgeons, or old women obstetricians. The developments in pathology have connected them, and shown how intimate is their relation. This latter subject explains how new and abnormal structures are substituted for normal tissues; how an organ becomes diseased and the manner of its restoration to health again, if it be restored; so that before you can have a clear idea