

The theories of dissociation, osmotic pressure, and the connection of these with electrical phenomena and equilibrium should be fully taken up. A careful consideration of these relations would be of infinitely more value than the dreary testing for unknown salts which occupies so much of the valuable time of the student. In the allotment of time to the study of chemistry, at least a part of three years should be given, very especially if it be taken for granted that, in a large percentage of cases, the student come in with no preliminary training in the subject.

In the first year of the medical student's work, the time should be devoted to the examination of simple chemical reactions, and it is at this point, at the very outset, that the method of looking at these reactions from a physical-chemical standpoint should be taught. With weekly sessions of two hours each in the laboratory and sufficient didactic work besides, the subject may be reviewed in a satisfactory manner. Too much time should not be taken up with analytical processes, which are after all but a very special branch of chemistry, whose aim is but little understood by the student, and less made use of in his subsequent career as a practitioner. This does not by any means imply that the analytical part should be entirely neglected, but that it should not be made the be all and end all of a course in chemistry.

In the second year work a chemical examination of physiological processes will occupy an equal amount of time. The work in this department has grown so heavy that a proper, though elementary review will fully take up the amount of time given, without entering into the clinical side of the work. The laboratory course should be essentially one devoted to the examination of physiological processes from the chemical side, and the effect of varying conditions on the course of the reaction and of the products formed.

In the third year the course should be distinctly a clinical one, and should have to do more particularly with the clinical examination of the various fluids of the body which are met with in the hospital laboratory, and at the bedside. At this stage in the student's course he is in a strong position to appreciate the full clinical significance of the chemical reactions which he performs. He has seen and followed the cases, and he knows the clinical meaning of a change in analytical results.

It may be objected to this division of the chemical course into three parts, that the time is more than can be allowed under the present conditions. This may be answered by assuming that the course in the third year does not take up the entire year, as indeed it need not, and more importantly by contending that the results in aiding the study of physiology, pathology, and medicine, will fully justify the extra time expended.

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