

development of chemistry is obvious, but it is somewhat difficult to step back from what is now common-place knowledge, to the standpoint of these early pioneers. The paper of Scheele, although worded in terms of the theory of phlogiston, is remarkable for its terseness and lucidity, and for the clear and correct ideas expressed upon the nature of the new gas. Indeed, if the word hydrogen be substituted for phlogiston, Scheele's explanation of the action of hydrochloric acid upon the black oxide of manganese almost represents our present knowledge. Berthollet, on the other hand, writes very voluminously upon a very slender experimental basis, and as an ardent exponent of the views of Lavoisier, concludes that chlorine gas is the oxide of an unknown radical, and this fixed idea leads to quite erroneous interpretations of observed facts.

That the effect of a preconceived idea, however, is not always prejudicial, is shown in the two lectures by Pasteur on Molecular Asymmetry, which form the contents of the second of the reprints under notice. Here Pasteur distinctly states that but for his preconceived idea as to the inter-relation of hemihedry and rotatory phenomena, he would not have discovered the opposite hemihedry of the paratartrate and tartrate of soda and ammonia; a difference missed by so careful an observer as Mitscherlich.

The English translation of these famous lectures possesses all the charm of the original. In them we have a complete account of Pasteur's work on optically active compounds, and, as the editor states in the preface, it is remarkable that the three ways of separating optical isomers here described are still the only ones known, and that there is scarcely a statement which would be changed if the whole were to be written to-day.

*Practical Toxicology for Physicians and Students.* By Prof. Dr. Rudolf Kobert, late Director of the Pharmacological Institute, Dorpat, Russia. Translated and edited by L. H. Friedburg, Ph.D. Pp. xiii + 201. (New York: William R. Jenkins, 1897.)

The work before us is a translation of a book by Prof. Kobert, the second edition of which was issued in 1887. While the author was engaged upon his "Lehrbuch der Intoxicationen," by which he is for the most part known in this country, and with which the present work must not be confused, he allowed the latter to run out of print. In 1894 he wrote the third German edition, and it is this which Dr. Friedburg has now translated and edited, three years after its issue. As we have not had the opportunity of seeing the third German edition of the original, we are unable to measure either the quality or extent of Dr. Friedburg's editing. With regard to his translating, it is the worst which has ever come under our notice. In fact the English language, in Dr. Friedburg's hands, is extremely difficult to understand. As this is a very strong statement it behoves us to give an instance, which, by the way, is not the worst we could find. Dr. Friedburg is speaking of a rise of blood pressure of peripheral origin. "If this is the case, the rise must obtain after the injection of the poison into the blood of an animal even if the marrow of the neck has been cut through and whose spinal marrow has been drilled out." We quote this instance, since it shows that the author is not only deplorably ignorant of the English language, but has no knowledge of the English equivalents of German physiological expressions. Dr. Friedburg's Latin is no better than his English; the plural of *vagus* is always written "*vagii*," and so polymorphic is the declension of this noun that we find the nominative singular written "*vagis*."

To turn from the manner of the book to the matter, it is undoubtedly full of information, and, if properly translated by some one acquainted with pharmacological method and the English language, would be valuable to both the pharmacologist and toxicologist. F. W. T.

NO. 1484, VOL. 57]

*What is Life? or, Where are we? What are we? Whence did we come? and Whither do we go?* By Frederick Hovenden, F.L.S., F.G.S., F.R.M.S. Pp. xiv + 290. (London: Chapman and Hall, 1897.)

MANY matters are dealt with in this book, ranging from the stellar universe to cell structure. About half the text is made up of quotations from the writings and utterances of men of science, distinguished and otherwise, and the remainder consists of perplexing conclusions which the extracts are held to support. Excessive zeal is shown in establishing fundamental truths, but that may be forgiven. It is when the author expands into the ether, so as to embrace in his comprehensive idea such diverse subjects as the Pentateuch and the currency question, that we lose the connections of the argument. The chief conclusions arrived at are stated in the following words:—

"From the combining power of the strongest species of atoms under the influence of Ether, arises the formation of cells.

"Cells under the influence of the strongest cell group themselves to form highly complex structures or organisms, hence the most complex of all organisms—Man. The activity of cells forms that activity we call Human Life. Thus Life is the sum of the activity or energy of molecules formed of atoms.

"The power of the regeneration of molecules causes regeneration of cells, and this causes regeneration of Life. Life is eternal."

*La Tuberculose et son Traitement hygiénique.* Par Prosper Merklen, Interne des hôpitaux de Paris. Edited by Felix Alcan. Pp. 190. (Paris: Ancienne Librairie Germer, Baillière et Cie.)

THIS little book forms No. cxix. of the "Bibliothèque Utile" series, and is certainly calculated to serve a useful purpose. It addresses the public, and not the medical profession. The nature of tubercular disease is very clearly and accurately set forth in plain language, together with its chief manifestations in man, and the principles underlying its prophylaxis and treatment. It is indisputably true that in the case of a preventable disease like tuberculosis, which constitutes one of the main scourges of civilised man, a dissemination of sound knowledge on the subject is the first necessary step in educating public opinion up to the hygienic requirements and sanitary restrictions which are demanded to check its spread. The present brochure is a creditable effort in this direction: the author has succeeded in placing home truths on the subject in a very clear light, and his remarks cannot fail to be of direct benefit to the public.

*Marriage Customs in Many Lands.* By the Rev. H. N. Hutchinson, B.A., F.G.S. Pp. xii + 348. (London: Seeley and Co., Ltd., 1897.)

MR. HUTCHINSON, forsaking geological subjects for a time, presents in this volume a purely popular account of the quaint customs connected with marriage in many parts of the world. He has not attempted to discuss the scientific questions relating to the history and origin of human marriage, but has merely aimed at providing the general public with readable descriptions of curious nuptial ceremonies of various peoples and races. The readers for whom the volume is intended will find much to interest and amuse them in it; and the excellent illustrations—among the best of their kind—give the book additional attraction. Authorities may not agree with all Mr. Hutchinson says; but, as the book is a compilation, the mistakes are usually the mistakes of the sources from which the information has been derived, and the only criticism that can be offered is whether the author has exercised sufficient discrimination in the collection of material.