

disease. In the course of time public opinion might sanction legislation of a prohibitive character. As to inveterate criminals, we must bring our minds to the remedy of the perpetual confinement of the irreclaimable, so that they may die out and leave no successors.

After discussing the competition of brain against brain and the fact that property is not always acquired by the most capable, and considering the effect of modern democratic attempts to equalize the struggle, as also the question of the relative sterility of the capables and the possible swamping of the capables by the incapables, our author says he cannot doubt that by selection England, in a hundred years, might have its average man and woman as well endowed in body and mind as are the best of us to-day.

It should be mentioned that Dr. Haycraft has a high regard for the deserving poor and wishes to see the criminal and vagrant class separated from them in our poor-houses and treated differently.

GEO. ST. CLAIR.

CARDIFF, WALES.

A Short History of Chemistry. By F. P. VENABLE, PH. D. 12 mo. Pp. viii., 163. Boston, D. C. Heath & Co. 1894. Price, \$1.00.

What may be called the historical habit of mind is of great value to the student of any science. Many things are constantly met with which can only be understood in the light of their historical setting. This is especially true in the case of a science which has seen so many vicissitudes and so many changes in its point of view as has chemistry. For this reason a book which gives a clear, concise outline of the historical development of the science is sure to find an extensive field of usefulness.

The present author follows, in general, the division into periods as given by Kopp,

but discusses the periods of Medical Chemistry and of Phlogiston together under the head of 'Qualitative Chemistry' and adds a period to which the name of Structural Chemistry is given. The opinion is expressed that this period has already passed and that we are entering upon a new and different phase of development for the science. His characterization of the present tendencies of the science is, however, necessarily vague and unsatisfactory.

The book is well written and there appear to be few errors. On page 141 the value of 15.96 for the atomic weight of oxygen is based, incorrectly, on the authority of Stas, instead of on that of Dumas and of Erdmann and Marchand.

For any student who desires more than a very elementary knowledge of the science, the book must, of course, be considered as an outline which is to be filled out by extensive reading of larger works. But, whether used by itself or in connection with other books or lectures, it is hoped that a book which is so easily accessible to every one will give a new impetus to a phase of chemical study which has been too much neglected.

W. A. NOYES.

ROSE POLYTECHNIC INSTITUTE.

A Laboratory Manual containing directions for a course of experiments in Organic Chemistry systematically arranged to accompany Remsen's Organic Chemistry by W. R. ORNDORFF. Boston, Heath & Co. 1894.

As indicated by the title, this manual contains directions for the experiments in Remsen's Organic Chemistry in a form suitable for students in the laboratory. The page being printed on but one side, ample room is left for the student's observations and, as the text-book is not open before him, he is led to observe for himself, instead of merely trying to see what the text-book says he should. As stated by Professor Remsen in the preface, "Great care has been taken to