

organic substances" (p. 265) Dr. Cohen has made a most praiseworthy attempt to systematise the analysis of organic substances. This part of the book might advantageously have been expanded (if necessary at the expense of the appendix), when the futility of the closing hint¹ might have been avoided.

The old method for the preparation of diethyl malonate—the *pons asinorum* of the organic chemist—is still given, but a better yield is obtained by the method of Noyes (*Journal of the American Chemical Society*, 18, 1105, 1896); succinic acid melts at 185°, not 180°; the conversion of citraconic into mesaconic acid (p. 112) is due to Fittig, not to Jacobson; methyl oxalate (Prep. 24) is not indexed; and the preparation of kreatinine might advantageously have been omitted.

We must, however, congratulate Dr. Cohen on having produced the best elementary book, in the English language, on practical organic chemistry, and we have found that our students use the book with great confidence and are perfectly able to prepare any of the substances from the descriptions. The book, which is well printed and free from typographical errors, should rank with the similar works of Ludwig Gattermann in German, and of Dupont and Freundler in French.

W. T. L.

OUR BOOK SHELF.

Description of the Human Spines, showing Numerical Variation, in the Warren Museum of the Harvard Medical School. By T. Dwight, M.D., LL.D. (Memoirs of the Boston Society of Natural History). Vol. v. No. 7. Pp. 75. (Boston, U.S.A., 1901.)

THIS memoir is for the greater part a careful description, with elaborate tabulation and adequate illustration, of forty-five anomalous human back-bones which, with one exception, were obtained during many years spent by the author in the dissecting-room of the Harvard Medical School. In the introductory portion of the work the author discusses Rosenberg's methods and well-known theory of "concomitant variations," based on the appreciation of a tendency of the cervical and lumbar regions of the column to absorb into themselves the thoracic, with change progressive and retrogressive at the opposite ends of this. Accepting, without proof, the theory that the human ilium enters into relation with different vertebræ during development, the author passes on to the consideration of irregular segmentation, and a discussion of the views of Baur, Bateson and others on inter- and ex-calcation, deferring the latter author's theory of "homœosis" for consideration in the body of the work. He finally denies the existence of a precise number of lumbar vertebræ, and finds refuge in Welcker's theory of the *vertebra fuleralis*. With this as a determining factor he largely deals, and the most interesting portion of his memoir is that in which he shows it to be the twenty-fourth vertebra in each of seven examples lacking one of the præsacral series. He classifies his specimens into classes, and clearly, systematically formulates the individual spines of each, and deals in some cases with correlated modification of the spinal nerves. Arguing that the "essential part of the office of the spine is to form the median support of the trunk," he deduces what he terms a "vitalistic conception," viz., that parts in corresponding situations exhibit a tendency to develop in a

¹ ("2, Solids.—A mixture of solids may be separated either by use of a suitable solvent which will dissolve one of the constituents more readily than the other, or by means of one of the reagents described above" p. 272).

corresponding manner; and in finally discussing Rosenberg's view, he remarks that its success has been largely due to the fact that "it fitted in so perfectly with the doctrine of descent by gradual modifications," and gives as his opinion that, "unfortunately for science," it has "become too much the custom to make everything square with this."

The memoir as a whole is laborious, but accurate and systematic, and will be of great use to the working anthropologist. There is appended a description of some incomplete specimens of interest in the author's collection, and we would remind him that among the quadrupedal mammals co-ossification of the atlas vertebra with the skull is at times found to be an effect of dislocation, and would recommend to his consideration the recent description by Broom of an *Echidna*'s spine having eight cervical vertebræ, and his discovery that in some marsupials the fourth lumbar and anterior caudal vertebræ bear in the young state free ribs.

Where Black Rules White: A Journey across and about Hayti. By H. Prichard. Pp. 288. (Westminster: Archibald Constable and Co., Ltd., 1900.) 12s.

MR. PRICHARD visited Haïti in the year 1899 as a special correspondent of the *Daily Express*; and in the volume under notice we have his impressions and experiences described, with anecdotes and illustrations. He made a short trip into Santo Domingo, to which he devotes a chapter, but otherwise the book is concerned with the people, places and affairs of the part of the island governed by the Haïti Republic. Referring to the people of the Dominican State, Mr. Prichard remarks: "They are not nearly so likeable as the Haytian peasantry, and hospitality does not flourish in the same degree as on the western side of the border. On the other hand, the Government of San Domingo is less jealous of foreign influence. The Dominicans speak Spanish, and have preserved the purity of their language to a far greater degree than can be said of the Haytians, whose French has degenerated into a Creole patois so corrupt that it can with difficulty be understood by outsiders."

From a scientific point of view, the most important statements made relate to Voudou worship and sacrifice. The author says that the people of Haïti are practically under the control of Papalois or Voudou priests, otherwise Haïtian witch-doctors and medicine-men; and he brings charges against them of murders and human sacrifices which the Government of the Republic appears unable to prevent. As to the ceremonies connected with the worship of Voudou, he remarks: "There are said to be two sects of Vaudoux: one which sacrifices only fruits, white cocks and white goats to the serpent-god; the other, that sinister cult above referred to, whose lesser ceremonies call for the blood of a black goat, but whose advanced orgies cannot be fully carried out without the sacrifice of the goat without horns—the human child." Miss Kingsley touched upon this subject in her "West African Studies."

Mr. Prichard made a special point while in Haïti of obtaining information as to Voudou ceremonies and sacrifices, and in some cases was able to obtain direct knowledge. He gives an account of personal observations of some of the rites, which should be of interest to ethnologists.

Untersuchungen zur Blutgerinnung. By Dr. Ernst Schwalbe. Pp. 89. (Brunswick: Vieweg, 1900.)

DR. ERNST SCHWALBE herein summarises the previous researches on the chemistry and morphology of the coagulation of the blood, and adds some new observations of his own.

He has employed Reye's method of separating