

treated in the text. The titles are conveniently arranged, and, on the whole, accurate, although the proof-reader might have been more consistent in spelling and more careful in reading the titles of foreign publications. The entire omission in the discussion of anatomical characteristics peculiar to the race as a whole and of the characteristics of the inner organs is, of course, repeated in the Bibliography.

The omission of all detailed and tabular matter have helped to give the book an attractive and popular form, but it has made it impossible to substantiate adequately any of the theories which the author advocates. It is to be feared that this method may mislead the general reader to believe that physical anthropology has accomplished much more than it actually has done, and that it may tend to perpetuate opinions which are likely to be materially altered by further inquiries.

FRANZ BOAS.

QUARRY INDUSTRY AND QUARRY GEOLOGY.

UNDER this title comes to us from the pen of Dr. O. Herrman, teacher in the Technological Institute at Chemnitz, Saxony, and from the press of Borntraeger Brothers, Berlin, an interesting volume of 428 pages on 'technical geology with practical hints for the commercial use of stone,' having special reference to the quarry industries of the Kingdom of Saxony. The briefest glance over its pages gives rise to the wish that we had as thorough a work on the building stones of our own country, for, in addition to its fullness of information, it possesses that rare quality of careful arrangement which is so seldom found in books. The work opens with a bibliography of the field covered, a list of institutions where building materials may be tested, with a brief tabulation of the modes of testing and a list of the geologic museums and larger study collection of rocks in Saxony.

The scientific discussion opens with a description of the rock-making minerals and their distribution; then follows a careful discussion of the rocks, their texture, composition and geographic distribution; next is discussed the physical and chemical properties of the minerals and rocks and the bearing of these upon the utility of the latter, and finally are consid-

ered certain geologic phenomena and their relation to the utilization of stone. Space is then given to the discussion of the most important uses of the more common stones worked in quarries. A chapter on modes of quarrying follows in proper order, concluding with a description of the methods for dressing the quarried stone.

The second section of the book, which is full of geologic and technical detail, is devoted to a discussion of the rocks of the Kingdom of Saxony.

The work closes with an appendix in which are discussed Saxon materials for road building and pavements, statistics of the quarry industries and a very useful tabular statement of the scientific and commercial characters of the different kinds of rock available for constructive purposes.

This work in its systematic arrangement is to the technological student what the classic works of Rosenbusch are to the petrographer. It must be conceded that we owe much to Germany for original research on the structure and classification of rocks and also for careful and accurate discussion of the facts determined. In our own country, unfortunately, at the present time, the knowledge of the architect and engineer on the subject of building stones is somewhat empirical and while accurate, since it is based on actual experience, is not fully collated and recorded in any one book to which one may turn for exhaustive information. It is to be earnestly hoped that the example of Dr. Herrman's publication will influence some one of our many competent authorities to group together and classify for publication all that is known about the building stones of North America.

F. J. H. M.

THE DEPOPULATION OF FRANCE.

THERE are interesting and important books on various subjects and there are also various books on interesting and important subjects. To the latter class belongs *Natalité et Démocratie*, written by M. Dumont and published at Paris by MM. Schleicher. The statistics are so badly arranged that it is difficult to find definite information, while the discussion does not carry much weight. But the problem is of extreme

importance. Only fifty years ago Malthusianism reigned. But applied science showed that the means of subsistence could be increased far more rapidly than the population. Now, in spite of the lowered death rate, the native population is actually decreasing in France and in New England, and is probably tending in this direction everywhere. The causes are not physiological, but psychological and social. M. Dumont blames the selfishness of democracies; he thinks that they are really aristocracies in which everyone wants to be an aristocrat and live in luxury. But it would probably be just as correct to blame our altruism. Our improved means of production, our improved hygiene, our charities and our sentimentalism have interfered with the struggle for existence, and fertility—physiological or psychological—has no longer a high selective value. It is doubtful whether M. Dumont will accomplish anything by preaching the patriotism and morality of large families. M. Bertillon's recent suggestion that an inheritance tax be imposed inversely proportional to the number of children is more reasonable, but it would only give a slight and temporary alleviation. The State would be more likely to succeed by the encouragement of early marriages, especially in the case of children from large families. But the whole problem is extremely difficult.

J. McKEEN CATTELL.

GENERAL.

W. SCHMIDT'S *Heron von Alexandria* (B. G. Teubner; 15 pp., 3 plates; .80 M.) is a review of the first volume of a new edition of Heron's works. The article contains 39 figures (partly conjectural) illustrating the many curious and ingenious automata designed by Heron for public amusement in gardens and theaters. The article gives a good idea of the subject and is interesting to the philologist as well as to the mechanic and physicist.

NUMBER VI. of the *Studies from the Yale Psychological Laboratory* has just been issued. It contains: 'A color-illusion' (with colored plate), by Professor G. T. Ladd; 'Researches in cross-education,' by Professor W. W. Davis, and 'Researches in practice and habit,' by Dr. W. Smythe Johnson. A number of copies has been

set aside for gratuitous distribution to persons who may be interested; a copy can be obtained by application to Dr. E. W. Scripture, New Haven, Conn.

BOOKS RECEIVED.

Proceedings of the U. S. National Museum. Published under the Direction of the Smithsonian Institution. Washington, Government Printing Office. 1899. Vol. xxi. Pp. xiii + 933.

Analyses électrolytiques. AD. MINET. Paris, Gauthier-Villars. 1899. Pp. 176.

Magnetical and Meteorological Observations made at the Government Observatory, Bombay, 1897, under the Direction of N. A. F. Moos. Bombay, Government Central Press. 1898. Pp. xviii + 12 tables. Price, 2s. 6d.

SCIENTIFIC JOURNALS AND ARTICLES.

Appletons' Popular Science Monthly for September opens with an article on the plague by Professor C. V. Vaughan, of the University of Michigan. In discussing recent legislation against the drink evil, Dr. Appleton Morgan argues that high licenses, damage laws and laws against adulteration are a sufficient remedy. Among the other articles is one on the milk supply of cities by Professor H. W. Conn; on the influence of the weather on crime by Dr. Edwin G. Dexter; on the survival of African music in America by Mrs. Jeanette R. Murphy, and a sketch of the zoologist Oscar Schmidt with a portrait as frontispiece.

DR. L. V. PIRSSON, professor of physical geography in Yale University, succeeds the late Professor O. C. Marsh on the editorial board of the *American Journal of Science*.

THE *Atlantic Monthly*, 'devoted to literature, science, art and politics,' but not in equal measure, has again changed editors. Mr. Walter H. Page has accepted a position in a New York publishing house and is succeeded by Professor Bliss Perry, of Princeton University.

DISCUSSION AND CORRESPONDENCE.

SCHEDULE FOR PSYCHOLOGY OF THE INTERNATIONAL CATALOGUE.

TO THE EDITOR OF SCIENCE: Professor Cattell is right in saying (SCIENCE, Aug. 11) that no scheme of classification for psychology