SCIENCE.

to the maternal line of descent " (p. 53). His account, however, of the way in which the maternal line originated is very obscure. Again, it has been a common opinion that the clan was developed out of the family, and the tribe out of the clan, so that the origin of government is to be traced back to the patriarchal rule of the father over his family. This also Mr. Starcke denies, holding that "the primitive organization of the clan is derived from that of the tribe, and not of the family. . . . The clan differed from the tribe as a part from the whole. . . . The family, on the other hand, is an altogether independent formation which flourishes within the tribe or clan. . . . The family does not develop into a clan" (pp. 276, 277). Marriage, in Mr. Starcke's view, arose, not from the sexual instinct nor from the affections, but from the desire of the man to have somebody to keep house for him. Many usages connected with the family are to be explained, in our author's opinion, by legal regulations. Thus he thinks that the names used to designate the various degrees of relationship were "the faithful reflection of the juridical relations which arose between the nearest kinsfolk of each tribe. Individuals who were, according to the legal point, on the same level with the speaker, received the same designation " (p. 207). In the same way he endeavors to account for exogamy and endogamy by legal regulations; but unfortunately he fails to tell us why the legal relations of persons came to be such as they were, rather than otherwise.

Such are Mr. Starcke's views on some of the leading topics discussed; and it is evident that they furnish material for considerable controversy. We shall not undertake any criticism of them, however, at the present time, but content ourselves with simply setting them forth. But there are certain literary faults in the book which can hardly be passed over. One of these is the obscurity with which some of the author's views are stated, which leaves the reader in doubt as to what he is trying to prove. Another fault, especially in the earlier chapters, is the excessive amount of detail, which makes us lose sight of the point under discussion in the mass of disconnected facts. In spite of these defects, however, the book will be interesting to all students of primitive society, and none the less so, perhaps, on account of its controversial character.

Hygienic Physiology, with Special Reference to the Use of Alcoholic Drinks and Narcotics. By JOEL DORMAN STEELE, Ph.D. New York and Chicago, Barnes. 12°. \$1.

THIS is a revised edition of the well-known "Fourteen Weeks in Human Physiology," and therefore needs no special comment. The subject of disinfectants occupies but a single page, and is unfortunately not in accord with the best knowledge that we possess on this important subject. The published reports of the American Public Health Association furnish more reliable information as to methods of disinfection, and we are surprised that in the preparation of this volume they were not consulted, rather than adopting the recommendations of the National Board of Health, which were reliable ten years ago, but are, so far as we know, not followed by any sanitary authorities at the present day.

A Hand-Book of Cryptogamic Botany. By ALFRED W. BEN-NETT and GEORGE MURRAY. London and New York, Longmans, Green, & Co. 12°. \$5.

THAT a text-book on this subject is greatly needed will be readily understood when the statement is made that no general hand-book on cryptogamic botany has appeared in the English language since that of Berkeley in 1857. As the authors of the present volume truly say, since then this department of botanical science has gone through little less than a revolution. Not only has the number of known forms increased enormously, but additions of great importance have been made to our knowledge of structure by the use of the microscope, and to the genetic connection of different forms by the careful following-out of the life-history of particular species. The main object of the present work is to bring within the reach of botanists, and of the public generally who are interested in the study of nature, an acquaintance with the present state of knowledge in this branch of science. The authors recognize that the question of terminology is one of the greatest stum-

bling-blocks to the student of cryptogamy; and they have, commendably we think, simplified the scientific terms whenever possible. Thus they employ throughout the volume "sporange," "archegone," "antherid," "cœnobe," "sclerote," "epiderm," etc., in place of the Latin and Greek forms hitherto used. The arrangement of the subject-matter is admirable, and the illustrations are sufficiently abundant and well executed for the purpose for which they were designed. Of the type and paper, and the general execution of the work, too much cannot be said in the way of praise.

Outlines of Lessons in Botany, for the Use of Teachers, or Mothers studying with their Children. By JANE H. NEWELL Boston, Ginn. 16°.

THESE lessons are suitable for children of twelve years and upward, and are arranged after the plan of Gray's "First Lessons" and "How Plants Grow," and are intended to be used in connection with either of those books. The author's aim has been to prepare such outlines as will aid teachers in fostering in their pupils the power of observation and clear expression. The volume deals with plants and their uses as food, clothing, fuel, and in the purification of the air. Directions are given for the raising of the morning-glory, sunflower, bean, and pea in the schoolroom or at home, and what to observe in the roots, stem, buds, branches, and leaves of these and other plants. Twenty-five well-drawn figures aid the text very materially.

AMONG THE PUBLISHERS.

TICKNOR & CO. have in preparation Pfeiffer's "American Mansions," a series of designs by Mr. Carl Pfeiffer for dwelling-houses of various classes, with all their details, both decorative and constructive, carefully worked out.

- Charles Scribner's Sons will publish shortly the second volume of Professor Charles W. Shields' "Philosophia Ultima;" and "Progress of Religious Freedom as shown in the History of the Toleration Acts," by the Rev. Dr. Philip Schaff.

- Roberts Brothers published on the 14th the second division of Rénan's "History of the People of Israel," from the reign of David up to the capture of Samaria.

— D. Appleton & Co. have ready "The Primitive Family in its Origin and Development," by Professor C. N. Starcke of the Copenhagen University, which forms Vol. LXV. of the International Scientific Series; Part V. of Vol. III. of Roscoe and Schorlemmer's "Treatise on Chemistry," covering "The Chemistry of Hydrocarbons and their Derivatives;" and "How to Study Geography," by Francis W. Parker, which forms Vol. X. of the International Education Series. They have in preparation "An Epitome of Herbert Spencer's Synthetic Philosophy;" "Stellar Evolution," by Dr. James Croll; "European Schools in 1888," by Dr. L. R. Klemm; "A Dictionary of Terms in Art;" and the annual volume for 1888 of "Appletons' Annual Cyclopædia."

— The J. B. Lippincott Company will publish next week, by subscription, the first volume of "The Cyclopædia of the Diseases of Children," by American, British, and Canadian authors, edited by John M. Keating, M.D.

— Professor John F. Genung of Amherst College has published through Messrs. Ginn & Co. of Boston a "Handbook of Rhetorical Analysis," intended to be a companion to his treatise on rhetoric. It consists of extracts from some twenty English writers, mostly of the present century, with notes and questions designed to lead the student to a proper appreciation of the qualities of style and thought which they exhibit. Most of the extracts are excellent, some of them being chosen for their style, and others for the depth of thought or power of invention shown in them. The editor's notes and questions are very numerous, and sometimes very suggestive, and we should think the volume would be quite useful to students of style and composition.

— As evidence of the wide interest that has been taken during the past year in the contents of *The Forum*, is cited the fact that in that period more than three thousand editorial articles suggested by *Forum* articles were printed in American and English papers.