

secret curses and superstitious rites to be accounted for upon the same principle.

In more recent times the success of a host of quack remedies, supported by quasi-scientific proofs, is to be referred to the same influence of mind upon body. The existence of such influence, and its great power for good or ill, is fully admitted by modern science; its practical application has, however, been left almost exclusively to charlatans and empirics. Naturally the physician has encountered the general fact of mental influence, and more or less unconsciously profited by its benefits; but the outspoken recognition of psychic states upon physical ills has been rare, owing to the endangering of one's reputation to which such a step would lead. The result has been that a special sect, ignorant of all rational physiology, has taken up the valuable kernel of truth, and surrounded it with an enormous shell of fantastic doctrines, semi-religious and altogether unscientific, in which the original kernel is warped quite out of recognition.

In recent years the question has assumed a more scientific aspect, owing to the light shed upon it by the researches in hypnotism. In this condition, in which suggestions are obeyed with abnormal readiness, it has been shown that functions ordinarily beyond voluntary control can be influenced, and thus a way be opened up for acting upon disturbed functions and diseased conditions. With a sensitive subject, a burn can be suggested at the spot where a coin touches the skin, and the inflammation, the scar, and all, will result. Further, if the suggestion be given that of two wounds the one will heal very quickly and the other slowly, one may find the inflammation almost entirely gone from the one on the following day, while on the other it will be evident for days or even weeks. If nature's process can thus be hastened or retarded, though in a somewhat abnormal condition it is true, why should it not be possible to systematically utilize this power in the case of real ills? Isolated examples of such attempts can be pointed out. Dr. Esdaile in India performed many operations in which hypnotism was the only anæsthetic used, and Dr. Liebault of Nancy has for many years been treating his patients by hypnotic suggestion whenever it seemed desirable. The writer has recently had an opportunity to witness the well-systematized procedures of two physicians at Amsterdam — Drs. Van Renterghem and Van Eeden — in the same direction. These physicians regard hypnotism as a form of sleep very variable in intensity, and passing imperceptibly into a normal sleep. They find a very large percentage (about 75 per cent or more) partially susceptible to its influence, and make no claim beyond the power to appeal by this means to natural restorative processes where the usual means of treatment have been of little avail. The process is a gradual one, and the suggestion must be very frequently repeated before a complete cure is effected. There is no element of the mysterious about their proceedings, but simply a methodical attempt to test the powers of mental influence upon physical ills.

As just noticed, they recognize different degrees of hypnotic sleep, and regard the memory that the subject retains of what has been done during the hypnotic condition as a convenient point of distinction between them. In the lightest sleep the patient remains fully conscious of what has been going on, and can give an accurate account of it. When the sleep is deeper, his remembrance is vague, and hints must be given in order to recall the events. In the deeper sleep all recollection is gone. Of 178 persons, only 7 could not be hypnotized, and 79 were thrown into a deep sleep. The procedure is very simple, and depends entirely upon the acceptance of a suggestion. The eyelids are closed and held for a moment, the patient being told to go to sleep; or the patient fixates the physician's eye for a moment, with the same result. A breath upon the eyelids, or touch upon the nose, easily awakens the sleeper. While in this condition, the suggestions are given that the pain will be gone, that the power to move a paralyzed limb will return, that sight or hearing will improve, that hallucinations will not recur, and so on, to suit the requirements of each case. In cases of paralysis the limbs are moved for the patient, gradually extending the range of the movement, and suggesting the same motions to be effected voluntarily by the patient. In cases of partial blindness, exercises in seeing and distinguishing different objects are made under hypnotic suggestion. In brief, each case

must be treated individually; and it requires the utmost tact, aided by a pleasing and impressive manner, to accomplish the best results. To the effects of such indirect suggestions, every candid physician will testify.

As to the time of cure, this depends upon the special malady and the individual. Sometimes a single suggestion will suddenly effect an almost complete cure, while in other cases the progress is very slow. The more gradual cures are to be preferred as being more in harmony with nature's methods. The kinds of disease most readily yielding to this treatment at once suggest the processes here involved. Hysterical affections make up a considerable portion of the cases treated; and in these the combined psycho-physiological disturbance is more mental than physical. But paralysis, rheumatic troubles, palpitations of the heart, digestive irregularities, and nearly all the ills that flesh is heir to, are found upon the list of successfully treated cases. They are all, however, functional troubles. In cases of organic trouble it is evident that restoration is not more possible by this method than by another. The difficulty is, that severe functional troubles may take the appearance of being organic, especially in cases of complicated disease. It must be admitted, however, that the benefits of hypnotic treatment have a much wider extent than what are generally understood by hysterical affections. Of 162 cases treated, 91 are regarded as restored to health, 46 have improved, and only 25 have been treated without avail. The main point at issue will probably be the permanence of such cures. The question has not been studied sufficiently long to admit of a positive answer, but the proper basis for a conclusive verdict is rapidly being accumulated. As far as the evidence goes, it points to as large a percentage of permanent cures as is effected by treatment by any other method. Cases are not unknown in which, after all skill has been applied, a sudden shock or accident has effected a complete and permanent restoration. The sudden cures of hypnotism may be regarded as affiliated with this class. The far more numerous gradual cures are naturally subject to relapses, and repeated suggestion is necessary to continue the progress.

Another point that will not fail to be raised is the danger incident to such methods. The dangers are real, and of many kinds; but they are all such as, in the hands of a skilful physician, are reduced to a minimum. The avoidance of unpleasant suggestions, an easy awakening from the sleep, the suggestion that no one else but the physician can hypnotize the patient, — all contribute to a successful result.

The entire question is one that the future must decide; but it should be recognized that attempts are now in progress to clear this very fertile field of the weeds that have grown upon it, and cultivate it assiduously for the advancement of science and the benefit of mankind.

BOOK-REVIEWS.

The Primitive Family in its Origin and Development. By C. N. STARCKE. (International Scientific Series.) New York, Appleton. 12°. \$1.75.

THE object of this work is to set forth the nature of the family as it exists in the most primitive form known to us, and, so far as possible, to trace its origin and the course of its development. To accomplish this end, the use of the comparative method is of course essential; and hence the author takes us over the whole field of savage life, and gathers proofs and illustrations from every quarter of the globe. Mr. Starcke's views on many of the subjects treated are opposed to those hitherto prevalent, and his book is largely a polemic against the writers with whom he disagrees. Thus it has been quite commonly held that in many tribes, if not in all, the earliest state of society was one of promiscuous intercourse between the sexes, and evidence of this has been believed to exist in the widely diffused custom of reckoning descent through the mother alone. Mr. Starcke denies all this, and maintains that "the social life of man begins with the partially aquatic family, and the family group which is ruled by the father in virtue of his physical superiority. . . . Clans are subsequently formed which, as their internal cohesion increases, gradually pass from the paternal

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. BENNETT 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 "sporangium," "archegonium," "antheridium," "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.