

philosophy is broader than any science, broader than all sciences together, and cannot be comprehended under the formulas of any of them.

Bibliographie des Modernen Hypnotismus. Von MAX DESSOIR. Berlin. 8°.

To realize the great activity in the study of hypnotism now present in all parts of the civilized world, nothing could be more serviceable than this bibliography. There are included no less than eight hundred titles; and these are devoted to the modern, scientific phases of the study alone, excluding references to the history of the topic, as well as the works of those who wrote when the topic was in a pseudo-scientific stage. By this plan seven-eighths of all the writings catalogued fall in the period since 1880. The increase of interest in the topic since 1880 can be read off from the increase of publications year by year. In 1880 there were published 14 works pertinent to this bibliography; in 1881, 9; in 1882, 39; in 1883, 40; in 1884, 78; in 1885, 71; in 1886, 131; in 1887, 205; in 1888 (January to April), 71. The countries in which the activity in hypnotic studies is greatest are likewise indicated by the languages in which the publications are issued: 473 are in French; 102 are in English, of which 40 come from America; 88 in Italian; 69 in German; 22 in Danish; 16 in Spanish; 12 in Russian; 6 in Dutch; 4 in Swedish; 3 in Norwegian; 2 each in Polish and Hungarian; 1 each in Portuguese and Roumanian. The classification of the topics is a very convenient one. We have first the general works (191 in number); then those with a more special medical interest (of which there are 199); next those on magnetism (36), on the physiology of hypnotism (62), on its psychological and pedagogical aspects (85), on its forensic aspects (43); and, finally, sections on telepathy (81), mesmerism (58), and miscellaneous (46). Under each section the titles are arranged by date of issue, and cross-references to other sections are given. There are also references to the numbers treating of the works of the Nancy school, of the Paris school, the question of simulation, of suggestion, of the practice of hypnotism and its theory. No trouble has been spared to make the bibliography convenient; and, to enable the author to maintain its completeness, he requests that books and articles on the topic be sent to him at W. Köthenerstr. 27, Berlin, Germany.

Die Ekstasen des Menschen. Von PAUL MANTEGAZZA. Tr. by Dr. R. Teuscher. Jena. 8°.

LIKE many of his eminent countrymen, such as Lombroso, Morrelli Sergi, Buccola, Vignoli, Mantegazza belongs to the psychological school of naturalists, and devotes his main efforts to bringing into the domain of science groups of facts that have hitherto been left to grow wild in the open road of speculation, or have been perversely cultivated at the hands of mercenary pseudo-scientists. His three works treating from various points of view, but with the anthropological, pedagogical, and psychological interests ever uppermost, of the sexual relations of mankind, indicate one phase of his labors, while another is suggested by his work on facial expression. He combines with his scientific interests a deep feeling for nature, both in the phenomena of land and sea and in that more specially inviting subject conveniently termed 'human nature;' and this is brought to the front in his essay on the art of being happy (*Science*, Dec. 9, 1887). Add to this that the author is a wide traveller, a careful reader, and an excellent stylist, and it is not difficult to understand that whatever he writes is likely to be interesting reading. In the present volume this expectation would not be disappointed. Under the head of human ecstasies are here included all those many extremes of emotion that lead to the forgetting of self, and in their extreme forms to a condition closely allied with the phenomena of hypnotism. It is this connection that lends an especial interest to the study of these phenomena, and rescues many apparently incredible and inexplicable narratives, especially in the history of religious devotion, from the scepticism with which they have been regarded. Moreover, as scientific psychology widens its domains more and more, it finds a large class of phenomena capable of only such a lenient and elastic treatment as are the classification and description of diseases. At best one can empirically describe and diagnose, leaving it to the future to gain a clearer insight and to deduce important generalizations. By

singling out the ecstasies of mankind as the heading of a chapter in descriptive psychology, Mantegazza has done a real service to that science, which he himself acknowledges is still in its 'prattling' stages.

Rudimentary forms of minor ecstasies are to be found in animals. There are not only love ecstasies, but, as those passionate delights in activity visible in an unchained dog indicate, a motor type of ecstasy; while the admiration of the bower-bird for its work of art, or the self-admiration of the strutting peacock, shows the beginnings of an æsthetic absorption. In man, and more especially in the man of civilization, the forms of ecstasy are many. We see not only ecstatic states brought about by the exercise of normal physiological functions, but even more by extreme devotion to artificially acquired possessions. Under the first head we contemplate the all-absorbing love of a mother for her child leading to deeds of astounding self-sacrifice, and to moments of rapturous adoration; we witness, though more rarely, the devotion of child to parent, remaining as a rule on a more respectful, contemplative stage; we read of the mutual love and devotion of brothers and sisters, of the soul-stirring compact of friend with friend that played so large a rôle in the friendship of classic times; we must even add the instances of Platonic love so often decried as impossible, but warmly defended by Mantegazza, to the crowning passion of romantic love, if we are to grasp the broad extent of the ecstatic horizon. The most interesting as well as the most completely described ecstasies are those connected with religion. These are most closely akin to the exaltations of love, and the devotee often calls herself (for women are more prone to this than men) the bride of her Saviour. Mantegazza confines his descriptions to the ecstasies of Christian religionists, though he could have found material in the history of all Oriental religions. St. Theresa is the type of religious ecstasies, and the minute description of her own feelings and passions that she has left form a very interesting psychological document. With her the deepest passion was for a more intimate communion with the divine essence,—a religious contemplation freed from the trammels of a sensuous life. Of such a nature, too, were the ecstasies of Plotinus, by which his philosophic insight was gained. This is the condition that leads to mysticism, and it has been claimed that a similar state of super-sensuous, dreamy abstraction follows the taking of certain drugs. In another kind of religious ecstasy the passion for self-denial and self-torture is uppermost. The feeling that every transgression, however slight, must be absolved by inflicting pain, the feeling of unworthiness, of being a sinful being, seizes the soul, and drives the devotee onward to more and more intense tortures, until pain is no longer felt and the body subjugated. Here occur such marvels as the stigmata, or flowing of blood from definite regions of the skin, in the shape of a cross, or from the hands and feet. The same thing has within recent years been witnessed in very sensitive hysterical hypnotic subjects as the result of a suggestion, and thus indicating what an extreme influence nervous states have over normally automatic, involuntary processes. The conditions of cataleptic rigidity, of trance that we now artificially induce, were seen in religious ecstasy, and, according to the beliefs of the time, were converted into cases of possession by evil spirits. Asceticism, with hallucinations caused by fasting and fatigue, is another fertile cause of religious ecstasy. All these instances deserve careful study from all who would grasp the various forms in which mental phenomena present themselves in nature.

Patriotism may be so supreme a motive in a man's life that it acquires an ecstatic intensity, and in Mazzini our author finds such an ecstatic. We must also condescend to enumerate under the same head all the devotions of men to favorite pets. There are real cases of ecstatic love of a master to his dog, his horse. Here, too, belong all those hobbies and mania (crazes) that, according to their nature, save the mind from *ennui* and inactivity, or blunt the susceptibilities. The miser gloating over his gold, and the book-collector over a musty treasure, are both in a minor form of ecstasy. There remain a large class of high emotional and intellectual ecstasies in which genius finds its sphere. The æsthetic raptures, whether addressed to the beauties of nature or of art, are among the most real and ennobling, because they touch one of the deepest chords of the human soul, and one that has ever responded

to the advance of human culture. The ear, as well as, and even more readily than, the eye, becomes the avenue by which ecstasy is approached; and the wonderful effects of martial strains, or the deeply touching notes of the human voice, have always been among the poet's favorite themes. Ecstasies of thought, of contemplation, are vouchsafed to the few. Kant declared that nothing so filled him with awe as the starry heavens above and the moral law within, thus indicating two approaches to ecstasy. The flights of poetic imagination, creating worlds harmonious and beautiful, are of a kindred nature. The swaying of the masses by the eloquence of a born orator, who forgets himself and his hearers and feels himself inspired for the occasion, is another phase of this same ecstasy. The intoxication of power that so often leads to its abuse, and has given rise to the phrase 'insanity of power,' is again a type of ecstasy. Finally, all those moments of fruitful discovery when the mysteries of nature are glimpsed, a new contribution to human knowledge made, a novel train of thought begun, are moments of creative ecstasy. In every field of human activity there are possibilities of greatness; and all these have a common element, just as the views from all high mountain-peaks present a close similarity. From the study of these ecstasies, we return with a fuller appreciation of their grandeur and their value, with a realization of their dangers when diverted into morbid channels; we realize, too, what a great rôle they have played in human history; and they suggest that man cannot be more aptly described than by defining him as an inspirable animal.

NOTES AND NEWS.

D. C. HEATH & Co. will publish shortly a translation of Paolo Mantegazza's 'Testa, a Book for Boys.' It is a companion book to De Amicis' 'Cuore.' The translation will be made under the supervision of Prof. L. D. Ventura of Boston, and of the Sauveur Summer School of Languages. — Cassell & Co. have nearly ready a second edition of 'Yachts and Yachting.' The original work consisted of four papers, — 'A History of American Yachting,' by Capt. R. F. Coffin; 'The Mayflower and Galatea Races of 1886,' by C. E. Clay; 'American Steam-Yachting,' by E. S. Jaffray; and 'British Yachting,' by C. J. C. McAllister. These papers had one hundred and ten illustrations by F. S. Cozzens, comprising pictures of all the famous yachts of recent times. C. E. Clay has now covered the subject from 1886 to date, and Mr. Cozzens has provided sixteen new cuts. — The J. B. Lippincott Company have in press 'An Elementary Treatise on Human Anatomy,' by Joseph Leidy; 'A Cyclopædia of Diseases of Children,' by Dr. J. M. Keating; 'Animal Life of the Seashore,' by Angelo Heilprin in the International Scientific Series; and 'A Popular History of Music,' by James E. Matthew, with one hundred and fifty illustrations, consisting of portraits, musical instruments, facsimiles of rare and early musical typography, etc. — Frederick Warne & Co. have in preparation 'A Pictorial Natural History Library,' in three volumes, which will teach with more than a thousand illustrated pictures the facts that children devour so greedily. — W. B. Clarke & Co. (successors to Clarke & Carruth), 340 Washington Street, Boston, will publish shortly 'Among the Theologies,' by Hiram Orcutt, LL.D. — Ginn & Co. have just ready Benjamin Franklin's autobiography, with notes and a continuation of his life, by D. H. Montgomery; 'Topics in Ancient History,' by Miss C. W. Wood of Holyoke Seminary; 'Arabian Nights,' in their series of Classics for Children; 'Cæsar's Army,' a study of the military art of the Romans in the last days of the Republic, by Harry Pratt Judson of the University of Minnesota; 'Descriptive Geometry,' by Linus Faunce of the Massachusetts Institute of Technology; 'Entrance Examination Papers,' compiled by Dr. John S. White of the Berkeley (New York) School; and questions prepared to accompany Fiske-Irving's 'Washington and His Country,' as a help to teachers using this as a text-book of United States history. — Scribner & Welford have just ready a volume entitled 'Princetoniana — Charles and A. A. Hodge, with Class and Table Talk of Hodge the Younger,' by a Scottish Princetonian, the Rev. C. A. Salmond, which contains a full biography of Rev. Dr. Charles Hodge (1797-1878), and of his son, the Rev. Dr. A. A. Hodge. Excellent portraits of the two professors, as well as one of Dr.

McCosh, contribute to the attraction of this volume. They have also just ready a volume on 'Tropical Africa,' by Henry Drummond, who gives a remarkably interesting account of his recent travels in Central Africa, with one or two chapters of natural history, and notes regarding the latest phases of the slave-trade and African politics generally. They will shortly issue 'The Letters of Frederica Sophia Wilhelmine, Margravine of Baireuth, and Voltaire.' — Harper & Brothers published on the 15th inst. 'Stepniak's' last book, 'The Russian Peasantry,' for which it is claimed that it is the most instructive and interesting work that has been produced by this remarkable writer, and is written evidently with self-restraint. They will soon issue in book form the practical house-keeping articles which have been contributed to *Harper's Bazar* by Christine Terhune Herrick, a daughter of Marion Harland. — *The Chautauquan* for July gives the location of forty-three summer assemblies modelled after the original one at Chautauqua, N.Y., and an outline of the work done in each. Of these assemblies, forty-one are located in twenty-one different States and Territories of the United States, one is in Canada, and one in England. The sessions vary in length from three days to two months. — In John Bogart's article on 'Railway Engineering Feats,' in the July *Scribner's*, will be a full account of life in a pneumatic caisson, far below the surface of the water, during the construction of bridge foundations.

— *Nature* states that the following were elected foreign members of the Royal Society on Thursday, May 31: Prof. Edmund Becquerel of Paris, distinguished for his researches on the effects of light on bodies, especially with reference to phosphorescence; Prof. Hermann Kopp of Heidelberg, for his researches on atomic volumes and boiling-points; Prof. Eduard F. W. Pflüger of Bonn, for his researches in physiology, especially in relation to irritability of nerves, respiration, and animal heat; and Prof. Julius Sachs of Würzburg, for his researches in botany, especially vegetable physiology.

— A despatch from Brussels dated June 18 states that the Kongo officials here think that the report received from a messenger from the Aruvimi was due to confusion regarding Ward's journey. Still they are anxious as to Stanley's fate, chiefly because Emin Bey had heard nothing of Ward, and had received almost positive confirmation of the hostility of tribes between the Aruvimi and Wadelai from officers who had journeyed there. Several Belgian explorers offer to go in search of Stanley, but only by the Kongo route and with a caravan of at most twenty men.

— The House Committee on Appropriations proposes to reduce the field force of the Coast and Geodetic Survey from sixty-two to fifty-eight men.

— The commissioner of fish and fisheries has asked for an appropriation of thirteen thousand dollars for the establishment and maintenance of a fish-cultural station, under the United States Fish Commission, in the Ozark region in south-western Missouri. The commissioner says that the neighborhood of Neosho, Newton County, Mo., affords favorable conditions for the establishment of such a station.

— Mr. William Walter Phelps has introduced into Congress a bill to purchase from Stephen Vail of Morristown, N.J., the original telegraphic instrument, or recording receiver, invented by his father, Alfred Vail, and used upon the first telegraphic line ever constructed, — that between Washington and Baltimore, — and to transmit the first message ever sent: "What hath God wrought?" The purchase of this instrument is strongly recommended by the officers of the Smithsonian Institution. The price is ten thousand dollars.

— In *Science* of March 26, 1886, our Vienna correspondent referred to the then newly invented gas-lamp of Dr. Auer of Welsbach, Austria. The principle of Dr. Auer's lamp is no new one. Every one knows the Drummond light, in which a cylinder of lime is brought to incandescence by a burning mixture of hydrogen and oxygen. But all lights of that character have failed to come into commercial use, because the material to be acted on by the heat has always been present in considerable mass, and has required gas under pressure and a very high temperature to bring the mass