fective brain-power and general perversion of healthy activity; also the door is open for many varied nerve-changes and degrees of brain instability, which always give a doubt to the sanity of the victim. The fact of being an inebriate points to an unsound mind, and more or less incapacity to act or think normally.

When the trance state is determined, the actual responsibility, or cognizance of right or wrong, is suspended: the person is a mental waif, without compass or chart. No evidence of premeditation or apparent judgment in his actions can change this fact. Any special act may spring from some impression laid up in the past, which, when conscious reason is withdrawn, takes on form and semblance. The real condition of the mind is always more or less concealed. Where the case is a periodical inebriate, with distinct free intervals of sanity, a possibility of concealed or masked epilepsy should always be considered. Epilepsy is likely to be present, or to follow from some organic tendency or favoring conditions. When this defence of no memory of the act is made, the case should receive a thorough medical study before any conclusion of responsibility can be reached.

The present treatment of inebriates in courts is nothing less than legal barbarism, founded on error and superstition. The oft-repeated statement that "drunkenness is no excuse for crime," assumes a definition of inebriety that has no support from scientific study and the teaching of facts.

Inebriety in all cases must be regarded as a disease, and the patient forced to use the means of recovery. Like the victim of an infectious disease, his personal responsibility is increased, and the community with him are bound to make the treatment a necessity.

The following propositions sum up many of the facts mentioned : —

I. Inebriety must be recognized as a condition of legal irresponsibility to a certain extent, depending on the character and circumstances of the case, and the general mental integrity displayed.

2. All unusual acts or crime committed by inebriates, either in a state of partial coma or alleged amnesia, which come under legal recognition, should receive thorough study by competent physicians before the legal responsibility can be determined.

3. When the trance state is established beyond doubt, he is both legally and practically irresponsible for his acts during this period, and each should be measured by the facts of its individual history.

4. Inebriety is a disease requiring physical means in the treatment. Society demands of the patient that he use diligence to recover; and, so far as he may neglect this, both himself and community are responsible.

5. It is the duty of the State to provide asylums, and encourage private enterprise to furnish the means and appliances for restoration.

6. Lastly, standing on this borderland, and looking back at the monstrous injustice and legal crime that is daily committed in the punishment of inebriates, who are practically insane, I am convinced that the time has come for a revolution of sentiment and practice, in which both the inebriate and the community must be held responsible, not alone for his acts or the consequences of them, but the causes and conditions which have developed in this way; then the victim will be forced to avail himself of every means for prevention, restoration, and recovery.

A NEW MILITARY RATION. — All the garrisons within the limit of the Seventh German Army Corps, we learn from the *Medical Herald*, have now been provided with larger samples of the new article of food which is in future to form the so-called 'iron ration' of the men in the field. It is a peculiar kind of bread, in the shape of small cubes the size of a chocolate-drop, made of fine wheat-bread, strongly spiced, and calculated to keep for a long time. When taken into the mouth, it quickly softens, and is both palatable and nutritious. It is chiefly intended for forced marches, when there is no time for camping and cooking.

WOUNDS OF THE ABDOMEN. — Modern surgery, aided by antisepsis, has enabled surgeons to accomplish results which, twenty-five years ago, would have been deemed impossible. This is in no department more marked than in abdominal surgery. While formerly a wound of the abdomen, either from a gunshot or a stab, was considered almost necessarily fatal, at the present day many lives are saved by an operation, which consists in opening the abdomen, tying every blood-vessel that may have been lacerated, and sewing up any wound which may have been made in the intestines. One of the most difficult parts of the operation consists in finding the intestinal wound. Dr. Senn of Milwaukee proposes to inject per rectum hydrogen-gas, which, he has demonstrated in dogs, finds its way through the entire length of the intestine; and, if an opening exist, the gas will escape, and can be detected.

## BOOK - REVIEWS.

## Three Introductory Lectures on the Science of Thought. By F. MAX MULLER. Chicago, The Open Court Publ. Co. 12°.

THESE lectures were delivered last year at the Royal Institution in London, and are intended as an introduction to the subject of which they treat, and which the author has dealt with more largely in his work on 'The Science of Thought.' Many writers before-Professor Müller had maintained that language is necessary as an instrument of thought, so that we could not think without it; but he goes much further than this, and maintains that language and thought are identical. This means, if taken literally, that the word 'orange,' when I pronounce it, is identical with the idea of an orange which I have in my mind. When stated in this concrete form, the absurdity of the theory is manifest, but Professor Müller endeavors to escape the absurdity by explaining that the word he identifies with the idea is not the word as actually uttered by the voice and heard with the bodily ear, but the word as heard mentally, or in imagination. This, however, does not remove the difficulty; for the word as heard mentally is not a word at all, but only the idea of a word; so that, when stated in this way, the theory means that the idea of a word is identical with the idea of the thing that it stands for.

Such, then, is the absurdity inherent in Professor Müller's theory ; nor does he succeed in removing it in any way: on the contrary, he aggravates it by the addition of others. For instance : in his preface he undertakes to tell us how language first arose; and in sodoing he gives himself away to start with. According to his theory of thought, we cannot have a concept, or general idea, until we have a word to symbolize it; and he ought, therefore, to account for the origin of language without assuming any concepts whatever. We need not here repeat his whole account of the matter; but he maintains, that, "before we can get a single conceptual word, we have to pass through at least five stages," and the first of these stages is "consciousness of our own repeated acts." Now, this consciousness involves at least four concepts: (I) the concept of an act, since it is not a single act that we are conscious of, but a series of acts; (2) the concept of number, or of many as distinguished from one; (3) the concept of repetition; (4) the concept of causation, since the acts are regarded as our acts, that is, as caused by us. Thus, according to Professor Müller's view of the origin of language, we must have had at least four concepts beforewe had a single word; and, if this is so, what becomes of the theory that we cannot have concepts without words? As another example of Professor Müller's reasoning, take his remarks about the thinking of animals. Some one had remarked that animals. think, to a certain extent at least, and that this proves that thought is not identical with language, to which Professor Müller replies inthis curious way: " If we mean by thought that mental function which has its outward sign and embodiment in language, we must say that animals do not think as we think, namely, *in words*. They may think in their own way. . . . But I cannot allow that they think, if we define thinking by speaking." A more ludicrous example of reasoning in a circle it would be impossible to find.

Professor Müller's theory is such a one as we often get when a scientific specialist undertakes to deal with the problems of philosophy. Such a man is apt to think that all philosophical problems can be solved by the methods and principles of his science; and the consequence is a great deal of unphilosophical reasoning. Thus, we have had mathematicians who thought that mathematics was the key to philosophy; and in our own time the biologists have put forth similar claims; and now comes Professor Max Müller, maintaining that philosophy is only a problem of language. But 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; I 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, Morselli 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 ecstatics, 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, -areligious 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 supersensuous, 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