

Taken as a whole, the work is well and logically written and fairly accurate in facts and figures. It is a work which will be read with interest by both technical and non-technical readers, and especially by those interested in the financial aspect of money and metals.

WALTER R. CRANE

On the Witness Stand: Essays on Psychology and Crime. By HUGO MÜNSTERBERG, Professor of Psychology, Harvard University. Pp. 269. New York, The McClure Co. 1908.

Professor Münsterberg writes as the champion of a cause. A new science is taking shape. Fifty laboratories are its servants. It is applied psychology (p. 9). Education, medicine, art, economics and law are its natural fields; but the obdurate lawyer bars it out of the last.

The reader of these essays, who is familiar with the practise of courts, will question if the author gives them sufficient credit for the rules which they have themselves worked out to aid them in the search for truth. His criticisms are addressed to those in which the trial is by jury, and there is no examination of the accused by the presiding judge. The American jurymen is commonly of more than average education and ability, else he would not be found upon the panel. Among twelve such men there will be those who have met, not only the ordinary, but some of the extraordinary experiences of life. They all know what strong emotion is. They are no strangers to the force of temptation, of suggestion, of the association of ideas. They are in one respect, and that an important one, more competent to weigh the value of testimony than a professor of psychology, because they are nearer to the ordinary witness in character and circumstance. They have learned from a lifetime of buying and selling, of giving and obeying orders, of hiring and discharging, of hearing news and telling news, how difficult it is for two men to see or understand a thing in exactly the same way, and how impossible it is for them to describe it exactly in the same way.

The lawyers and judges, too, have been

schooled in certain rules of evidence. Professor Münsterberg is wrong when he says (p. 22) that they hope to get the exact truth, when they ask some cabman how much time passed between a cry and a shot. They know, and the jury know, that what seems to some a space of minutes, will seem to others, and perhaps with better reason, a space of seconds. Witnesses may differ on the size or length or form of a field, "and yet," says the author (p. 33), "there is no one to remind the court that the same distances must appear quite differently under a hundred different conditions." He would have the psychologist intervene, and explain all this to a dozen men whose every-day experience has taught it to them from boyhood.

So when he declares (p. 44) that "the confidence in the reliability of memory is so general that the suspicion of memory illusions evidently plays a small rôle in the mind of the jurymen" and cross-examining lawyer, he discredits their intelligence on quite insufficient grounds.

Professor Münsterberg would have witnesses examined by a psychologist (pp. 46, 62) with regard to their powers of perception and memory, their faculty of attention, their lines of association, the strength of their volition, and their impressibility by suggestion. He does not tell us whether he would have this examination take place in or out of court. If in court, it is obvious that it would greatly multiply the questions for the jury to decide, and be mainly unintelligible to them except as supplying a basis for the examiner's ultimate conclusions: if out of court, it would involve wearisome statements, probably from more than one expert, of the experiments tried, and open the way to a still more wearisome cross-examination. In either case, the prospect of submitting to such an ordeal would make many men and more women unwilling to testify in court, and so tend to dissuade them from letting it be known that they are cognizant of material facts.

The author urges a resort to the association-test, or the automatograph, in the case of those charged with crime; saying that (pp. 82, 124, 132) a guilty man, of course, will not object.

since he can not refuse and yet affirm his innocence. This ignores the settled construction of the provision in all our constitutions that the accused can never be compelled to give evidence against himself.

The effect of suggestion on a witness is spoken of as something to be understood and explained only by a professed psychologist (p. 158). The rule of all Anglo-American courts which excludes questions naturally leading to a desired answer as to a material fact, shows how well jurists have appreciated this particular tendency of the human mind.

The position of the Lombroso school that a criminal, like a poet, *nascitur, non fit*, is pronounced untenable (p. 234). We are all potential criminals; not actually such, largely, because we are afraid of unpleasant consequences, and society has been so kind as to environ us with circumstances favorable to the development of this fear (pp. 238, 250, 266). The clearest sources of pure life are (p. 262) "the motives of private, personal interest between human being and human being."

Disrespect for law the author counts as an important cause of crime. In that view, it is questionable whether he was wise in giving so much space to the psychological aspects of two recent murder trials; that of Moyer (p. 92), in which he made a scientific examination of the main witness for the state and concluded that he was an honest one, though the jury did not believe him, and another in Chicago (p. 163), where a man was hanged upon his own confession, whom Professor Münsterberg, without having examined him, pronounced innocent.

Like all that comes from the author's prolific pen, this book is thoughtful and suggestive. It would be more valuable if, instead of dwelling solely on the aid which psychological experts could render to courts, he had also discussed the practical difficulties which lie in the way.

SIMEON E. BALDWIN

SCIENTIFIC JOURNALS AND ARTICLES

The American Naturalist for February contains the address of Charles F. Cox, president of the New York Academy of Sciences,

on "Charles Darwin and the Mutation Theory." The author presents many facts to show that Darwin was well aware of the tendency of many species to sudden and marked variations, these variations being perpetuated, but that, nevertheless, he was convinced that this was exceptional and extraordinary. Such being the case, he would scarcely have subscribed to De Vries's *dictum* that species and varieties have originated by mutation and at present are not known to have originated in any other way. Robert F. Griggs presents the second, and concluding, part of his article on "Juvenile Kelps and the Recapitulation Theory," the decision being that except as some tendency has operated to change the heritage the history of the individual does recapitulate the history of the race.

The Zoological Society Bulletin for January opens with part two of a paper on the "New World Vultures," by C. William Beebe. This is largely devoted to the California condor, but also contains an account of an interesting experiment to test the sense of smell in the vultures; it seems to be almost lacking, and is best developed in the turkey buzzard. There is an account of how the hippopotamus was moved to the new elephant house and a note giving the weights of the elephants and rhinoceroses. Hunting song birds has not ceased entirely in the vicinity of the park and they are occasionally sought with shot-gun and traps.

The Museums Journal of Great Britain contains, besides its many interesting notes and reviews, "The History of the Ipswich Museum," by Frank Woolnough, and an article by L. Wray, on "The Preservation of Mammal Skins." This is of importance from the fact that the writer gained his experience in the Perak Museum, where he had to contend with the hot, moist climate of the tropics.

The Bulletin of the Charleston Museum for January contains the report of the director for 1908, which notes the good progress made during the year, especially in the development of the library, which is the only free public library in the city.