

culosis is to be most highly commended, and we suspect that much of the good he attributes to climatic influences is due to this minute personal attention, which is the keynote of successful treatment in any climate. It would be fairer, and the arguments have more weight, if Dr. Bonney proved by statistical comparison the marked advantages of Colorado over what he considers less favorable regions.

In the treatment of hemorrhage on page 717, Dr. Bonney wisely, we think, advises against the use of all drugs calculated to reduce the volume of blood in the lungs, as worthless and harmful. On page 722, however, he speaks highly of placing ligatures around the extremities, which act by reducing the volume of blood, though the pathologic changes which prevent the contraction of the vessels at the site of bleeding must act with equal force in both cases.

The chapter on Theories of Immunity is the weakest part of the book, and should be omitted in the future, or re-written. The text is far from clear, and many inaccurate expressions are used, such as "toxic infection," "receptor cells," "protective poisons," "bacilli emulsion," etc. If his description of an antitoxin means anything it is that antitoxins consist of an excess of haptophores!

In describing Wright's technique we are told that the film is so spread as to insure even distribution of the cells. This is exactly what we try to avoid, Wright having devised a special method of spreading with the end of a slide for the purpose of pressing the leucocytes to the edges and end of the smear, to facilitate counting.

The *italic* is overworked throughout the book.

The names of Lassar, Delépine, Vallée, Gabbett, Descos and Larrier are misspelled.

It is more easy to pick flaws than to construct a book, but in a work of such general excellence, it is particularly disappointing to find such defects as have been pointed out.

The printing is good, and the illustrations throughout are first class, from the technical, as well as the educational standpoint.

In spite of the defects, and though we may not agree with Dr. Bonney in some of his views, we consider the book a valuable addition to our knowledge of the terrible disease of which he treats. Not only the general practitioner, for whom the book is written, but the specialist will find it well worth careful study.

MAZÛCK P. RAVENEL

*The World's Gold. A Discussion of the Geological Occurrence of Gold, Its Geographical Distribution, Its Extraction and Methods of Milling, and the Economy of Gold.* By L. DE LAUNAY, Professor in the École Supérieure des Mines. Cloth; 5½ x 8½ ins.; pp. 242. \$1.75 net. New York, G. P. Putnam's Sons.

The preface of this work is an interesting thesis on the function of gold in the world's industrial development. According to the author, it is not only the basis of all wealth, but it is "the whole of wealth"; furthermore, it is a great civilizer and one of the most powerful agencies making for the development of the resources of the world.

The chapters on the geological occurrence and geographical distribution of gold are of necessity, in a work of this character, unsatisfactory and far from exhaustive. The same may be said, and with greater force, of the chapter on extraction and dressing of gold ores—practically no definite or clear ideas can be acquired by a perusal of these chapters. However, from the standpoint of the economist, scientific details are not necessary.

The main value of this work lies in the chapter on the Economy of Gold, and it may be said that in this respect it is a positive and exceedingly valuable addition to the literature on the relation of gold to money and commerce.

L. de Launay examines the problem of the future supply of gold from the scientific standpoint and correlates the influence of this supply with prices and the movement of capital from the financial standpoint. Thus he performs the rare service of welding together the technical and economical aspects of the subject.

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.