for the modern experimental treatment of psychology, and has the merit of having introduced these methods in the University of Wales; it is therefore regrettable that he has not dwelt upon the value of psychology, so treated, as a training in accurate observation. For no other experimental science exercises so constantly, or makes so exacting demands of, the faculty of close observation and the power of voluntary control of the attention, the development of which two powers is, or should be, a prime object of all educational efforts.

W. McD.

Photography. Edited by Paul N. Hasluck. Pp. 160. (London, Paris, New York, and Melbourne: Cassell and Co., Ltd., 1903.) Price 1*s*.

Hand Camera Photography. By Walter Kilbey. Pp. 124. (London: Dawbarn and Ward, Ltd., 1903.) Price 1*s*. net; cloth, 2*s*. net.

THESE little books are both intended for beginners in photography. The comprehensive title of the first is reflected in the claim made in the preface that the "Handbook contains, in a form convenient for everyday use, a comprehensive digest of the knowledge of photography, scattered over more than twenty thousand columns of *Work*." Doubtless the volume will be of value to readers of *Work* in saving many a reference to its thousands of columns, and as it is written chiefly by a professional photographer, others will probably be interested in such chapters as that on retouching. Much of the matter is too concise. It is impossible, for example, to give useful directions for the making of a 20 × 15 wet collodion negative in less than one small page, including instructions as to what to buy for the purpose.

The second volume is of a different kind. It is written by an amateur for amateurs, and the author has proved by his published photographs that his experiences are valuable. Of course, everyone will not corroborate all the opinions expressed, for the book has individuality and does not pretend to be a comprehensive treatise. It is essentially popular in style, and meets several difficulties that trouble beginners, and that many authors do not think of referring to. But Mr. Kilbey has surely forgotten himself when he suggests the use of a swing back in order to get such a view as an abbey with a foreground of rushes more easily into focus. Some ten pages further on an example of distortion due to tilting the camera is illustrated. We fear that some will infer from these illustrations that tilting the camera gives distortion, while swinging the plate does not. The book will be found to be a very useful guide by those who use hand cameras, and whose knowledge of photography is but slight, while others who may rank with the author in experience can hardly fail to find useful suggestions.

Mise en Valeur des Gîtes Minéraux. By F. Colomer. Pp. 184. (Paris: Gauthier-Villars, 1903.) Price 3 francs.

MOST of the French treatises on mining hitherto published deal chiefly with the extraction of coal, and this unpretentious and inexpensive volume will therefore undoubtedly prove useful to managers of metalliferous mines. It gives a clear summary of modern practice in metal mining. It is up-to-date and compact with facts. The matter is divided into ten chapters, dealing respectively with the definition of an ore-deposit, access to the deposit, method of working, breaking ground, rock-drills, explosives, transport, raising ore, drainage and ventilation. The work concludes with a brief glossary of technical terms. The absence of illustrations renders some of the descriptions somewhat obscure. The author has, however, carried out his task with care and accuracy, and has produced a volume valuable to the student desirous of becoming familiar with French mining terms.

LETTERS TO THE EDITOR.

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Psychophysical Interaction.

MY authority for attributing to Descartes the distinction between "creation" and "direction" is Leibniz's "Theodicée" (Erd. 519). I ought to have stated more clearly than I did that he, of course, conceived of the problem in the form in which it presented itself to his age as one of "motion" rather than of energy and momentum. In referring to the history of the discussion at all, I merely meant to indicate its antiquity. This, of course, is no reason why it should not be reopened now. Every generation of thinkers has to adjust old solutions to new forms of a problem. It is, however, a reason why we should inquire whether a controversy of so long a standing may not be founded on a radical misunderstanding.

The object of my letter, if I may repeat it, was not to advocate the removal of the discussion from the field of fact to the *nirvana* of monistic idealism, as Sir Oliver Lodge suggests, but the preparation of the way for a better understanding between the combatants by inviting them, experimentally, at least, to consider the facts from a different point of view, or rather from the point of view of the most fundamental of all facts, our own will and personality. In making this suggestion, I expressly disavowed the introduction of anything transcendental that might dazzle the eyes or divert attention from the "landscape" or the "wayside." The suggestion, on the contrary, was that wayside facts might be better understood and unsatisfying controversy avoided, while, at the same time, the end which I understand Sir Oliver Lodge desires in the vindication of the reality of mind might be more legitimately achieved if we reminded ourselves at times that the road is a part of the landscape, and that both of them (to recall an old simile), both as they are and as they are known, are the work of the sun. So far from being put forward in the name of any one philosophy, this point of view, I maintained, is one which psychologists, pluralists and monists, realists and idealists alike, show a growing tendency to adopt.

The point at which the difference of attitude I advocate is most likely to come home to the physicist is that which Sir Oliver Lodge himself rightly emphasises in the donkey and carrots illustration. The psychologist only asks him to carry this far enough, following the facts as they take him from animal reaction to conscious volition and determination by ideas, on the chance that, when this point has been reached, a new view of the relation of the terms he has been accustomed to oppose to each other as matter and mind may be seen to be possible, and questions such as that raised by Mr. Culverwell in the letter following Sir Oliver's own in your issue of June 18 as to whether one state of motion in the molecules of the brain could in theory be deduced from the preceding state, of whatever interest to the physicist, to be irrelevant to the more ultimate question of the reality and efficiency of mind. If the conception of a physical world as opposed to a mental can be shown (as psychologists are agreed it can) to be one which has grown up within the conscious subject as a mode of organising and utilising his experience, what reason can there be for representing matter as an independent reality reacting upon another which we call mind?

In conclusion, may I say that it seems to me one of the misfortunes of present day specialism that physicists and psychologists, like mind and matter themselves, on the common view (though unfortunately without their pre-established harmony), move in different spheres, writing in different journals, and exchanging words, if at all, from a distance? I am grateful to NATURE for its hospitality on the present occasion, and to Sir Oliver for his note of welcome. May I express the hope that he will return the visit and continue the discussion in the pages of *Mind*? I think I may promise him an equally hearty welcome, and if I am right as to present-day tendencies in psychological science, a congenial atmosphere.

J. H. MUIRHEAD.

Birmingham, June 21.