

powers which, according to the doctrine of evolution, they do not acquire, but inherit. For the benefit of those who would now save this theory by maintaining that it meant or means something that was never intended, we would quote the example given in illustration by M. Ribot:—"Few of our necessities are so pressing as thirst; nevertheless an animal does not distinguish at first that the water in the pond can appease it; it is only later in his wanderings that he comes to apply his tongue to the surface of the water (happy accident) and to feel the relief which it affords, and thus to learn what he ought to will." Few of the poor animals, we fear, would ever reach maturity if they had not more of instinct than Prof. Bain would here allow them. Yet what Prof. Bain has written about instinct he claims, and M. Ribot thinks "justly, as one of the most original portions of his work." Unfortunately for the fame of this celebrated psychologist, it appears from the progress of research that exactly in those departments where he has been most original have his conceptions been least in accordance with the order of Nature.

M. Ribot's most serious labour seems to have been in bringing together, in a more or less connected form, the psychology which has hitherto been scattered through the writings of Mr. George Henry Lewes. This original thinker and highly suggestive writer is the only one of our psychologists whose work may not be regarded as finished. The volume recently published ("Problems of Life and Mind") does not supply material for an estimate of the work on which he has long been engaged. But while continuing to agree with Mr. Spencer much more than any other of the authorities, Mr. Lewes encourages his readers to hope for important and permanent additions to mental philosophy; and to put the prospects of the work at the lowest, he will certainly compel the school to which he belongs to gravely reconsider some of their fundamental positions.

When in his conclusion M. Ribot attempts to bring forward the points on which the writers are agreed, the "fundamental propositions" to which he reduces them are unsatisfactory in two ways. Many of them are so vague in expression as not to exclude rival theories; while others have a sufficient amount of precision to make them flat contradictions of the clearly expressed and reiterated opinions of some of the authorities. We are, for example, not surprised to hear a disciple of Mr. Mill and Prof. Bain express his astonishment that his masters should have fathered on them the realism they have so vigorously opposed. M. Ribot's words are explicit:—"Outside of us, and independently of our perceptions, there exists a material world which condemns idealism. It is conformable to the data of the sciences to believe that this material world, taken in itself, does not resemble the perceptions of it which we have; this condemns vulgar realism." It surely says little for idealism that M. Ribot, after studying and expounding the arguments in its favour, should thus end with making our idealists agree with that very realism which Prof. Bain has described as unworthy the name of Philosophy.

After recognising the shortcomings referred to, it remains to be repeated that the author deserves the thanks of everyone interested in the spread of mental science in France. But we are unable to find any reason for the book having been translated into English. No English

student ought to go to M. Ribot for the opinions of Mr. Mill or Mr. Spencer. Should any not already familiar with the topics discussed attempt to read the work, they will frequently be much perplexed by the exceeding carelessness of the translation. If they are amused to read that "*melodies* are described in pathological treatises," they may be a little puzzled to make out how "all Science is *contradicted* by the double action of analysis and synthesis," or in what sense "so long as the living being has no consciousness he leads a purely psychological life." And we would hint to any innocent young persons disposed to pin their faith to Locke, that they may be in some danger of being misunderstood should they follow the uniform usage of the translator and describe themselves as "*sensualists*." DOUGLAS A. SPALDING

OUR BOOK SHELF

Africa: Geographical Exploration and Christian Enterprise. By A. Guar Forbes. (London: Sampson Low and Co. 1874.)

WE can recommend this moderate-sized volume as an interesting popular *résumé* of the progress of discovery in Africa from the earliest time to the present day. The author writes mainly from the point of view of missionary enterprise, but seems to have read with diligence and intelligence the greater part of the literature of modern African travel, with which his book is mostly concerned, and has made therefrom a creditable compilation showing the progress of discovery from Bruce downwards. The first chapter gives a brief account of the topography, climate, and productions of Africa; and the accompanying pretty clear map shows the route of the leading explorers. We notice one or two signs of carelessness or haste; for example, on p. 4, Mr. Forbes states that "the most westerly point is Cabo Verde, in long. 51° 25' E., lat. 10° 25' N., the distance between the two points being about the same as its length." Again, at p. 115, "Sahara Desert" ought surely to be "Kalahari Desert."

LETTERS TO THE EDITOR

[The Editor does not hold himself responsible for opinions expressed by his correspondents. No notice is taken of anonymous communications.]

Ocean Circulation—Dr. Carpenter and Mr. Croll

IN the interests of Science, of scientific discussions, and of scientific men let me be allowed to protest very earnestly against the manner in which Dr. Carpenter has thought fit to reply in your columns to the defence which Mr. Croll made against the representation of his views, given in NATURE, vol. ix. p. 423. I take much interest in the subject under discussion—the great fundamental cause of the distribution of heat over the globe, and am most anxious to arrive at the true solution of the problem—a result, however, which will be indefinitely postponed if such letters as that of Dr. Carpenter in NATURE, vol. x. p. 62, are to become common.

Mr. Croll, discarding unimportant details, asked attention to one or two cardinal "misapprehensions" on which Dr. Carpenter had been proceeding. But the Doctor, instead of plainly grappling with these alleged "misapprehensions," runs off to call attention to a footnote of another paper of Mr. Croll's, brings forward some statement of Mr. Croll's views about the relative saltness of different portions of the ocean (about which, however, not a single word is said in the letter that has called forth Dr. Carpenter's reply), and concludes by another *argumentum ad hominem*, of which I am sure every reader of his papers must now be weary.

Now I strongly object to have dust thrown in my eyes in this way. Dr. Carpenter does not attempt to deal with any one of the cardinal and crucial arguments in Mr. Croll's letter. He raises a cloud about "averages," repeats his joke about ten children to every marriage, and with other irrelevant matter, including an introduction of the Astronomer Royal