

REVIEWS.

THE EXPRESSION OF THE EMOTIONS.*

WE do not think we err in expressing the opinion that the volume which is now before us is unquestionably the work of most importance as regards the doctrine of Evolution which has appeared since the publication of the "Origin of Species." And we think so because it offers us a new path of argument in favour of the belief that man has come, in a long line of descent, from the lower animals. It affords us a series of arguments, patent to everyone, in favour of the belief held by Mr. Darwin and his numerous school. Moreover, it is a work which by its style, by its illustrations, by the interest attaching to its arguments in the "home-thrust" which the view of natural selection obtains from the examples given, must become a handbook in every family accustomed to read anything better than the usually dreary three-volume productions. We cannot hope, in our space, to do much towards reviewing this book; for, though its number of pages is not 400, it is devoid of padding, and its every column contains hosts of examples which, the author believes, support his theory. Further, it contains many allusions to foregone work of other authors, and embraces the results obtained by the numerous individuals whom Mr. Darwin asked to return him answers to a set of printed questions. Still, although nothing short of a "Quarterly" review can hope to do it justice, we may pick up a few of the crumbs which fall from its well-laden table. However Mr. Darwin divides his subject, in order to render his ideas on the matter as clear as possible, we shall not follow him in these portions of his work. For we fancy that all which refers, for example, to how much the nervous system may operate independently of the will in giving rise to habits of a peculiar nature, must be a subject, in the first place, extremely difficult of debate, in the next instance, liable to vary according to the condition of mental physiology, which is still in an unsettled state. But, apart altogether from this, the work contains ample and abundant reliable testimony in reference to the one point, the view that the expression of many of our emotions are

* "The Expression of the Emotions in Man and Animals," by Charles Darwin, M.A., F.R.S., with photographic and other illustrations. London: John Murray. 1872.

unquestionably derived, in the second place, from a primitive stage of man, and in the first case from the quadrumanous animals which must, through some branch—possibly an extinct one—be our ancestors.

But the numerous examples which Mr. Darwin gives, render it impossible for any rational person to incline to any but the belief of our evlutional descent. Of these we shall select but a few, which not only demonstrate the author's opinions, but which show how extraordinarily close his observations have been. Concerning the remarkable habit possessed by dogs after discharging excrement, he says:—

“Dogs, after voiding their excrement, often make with all four feet a few scratches backward, even on a smooth stone pavement, as if for the purpose of covering up their excrement with earth, in the same manner as do cats. Wolves and jackals behave in the Zoological Gardens in nearly the same manner, as do cats; yet, as I am assured by the keepers, neither wolves, jackals nor foxes, when they have the means of doing so, cover up their excrement, any more than do dogs. All these animals, however, bury superfluous food. Hence, if we rightly understand the meaning of the above cat-like habit, of which there can be little doubt, we have a purposeless remnant of an habitual movement, which was originally followed by some remote progenitor of the dog genus for a definite purpose, and which has been retained for a prodigious length of time.”

This is remarkable enough; though it may be objected, that it does not prove anything with regard to man, it is of value as proving that habits have undoubtedly descended through the Mammalia.

But it is in regard to the expressions of monkeys and of ourselves that the best part of this work relates. Assuredly, the results are most remarkable, and so far as we can see, it is impossible to put any other conclusion upon the observation of these results, than that they are the one parental to the other. Mr. Darwin gives numerous examples from his own observation and from that of others, showing that the monkeys are excited to express laughter, and pain, and anger, very much as we ourselves are; and though this is not so manifest in the higher apes because of their want of eyebrows, it is still displayed to a careful observer. The author, speaking of some observations made at the Zoological Gardens, says that “the Anubis baboon was first insulted and put into a furious rage, as was easily done by his keeper, who then made friends with him and shook hands. As the reconciliation was effected, the baboon rapidly moved up and down his jaws and lips, and looked pleased. When we laugh heartily, a similar movement or quiver may be observed, more or less distinctly, in our jaws; but with man the muscles of the chest are more particularly acted on, whilst with this baboon, and with some other monkeys, it is the muscles of the jaws and lips which are spasmodically affected.”

Many other instances are given by the author with reference to monkeys, among others, one with regard to the closure of the mouth. “When,” he says, “we try to perform some little action which is difficult and requires precision—for instance, to thread a needle—we generally close our lips firmly, for the sake, I presume, of not disturbing our movements by breathing; and I noticed the same action in a young orang. The poor little creature was sick, and was amusing itself by trying to kill the flies on the

window-panes with its knuckles. This was difficult, as the flies buzzed about, and at each attempt the lips were firmly compressed, and at the same time slightly protruded."

Although the elephant is not very near man relationally, it is remarkable that in one respect there is a singular analogy, if it be only that between the eye and its purposes in both. Of this there are various examples given, the most singular of which is a case recorded by Sir E. Tennent, in his book upon Ceylon. In this he distinctly cites cases of weeping in the elephant. Of these, it was only some which had been absolutely captured that wept; the others, which were still at large, did not weep, it being supposed that they kept their eyes clear for the purpose of seeing and avoiding those who were in pursuit of them. Mr. Darwin, too, very carefully compares the expressions of men, which he appears to have made an elaborate study of, with the similar ways of expression carried out in the ape tribe, and with most interesting results. But, apart from this he has gone carefully into the muscular movements of the face in man, and has most elaborately illustrated them by photographs, which are taken from M. Duchenne's and other equally reliable sources. This part of his book is most interesting and instructive, and will well repay perusal. We think that, in some few cases, the author has pushed his opinions farther than rigidly logical reasoning would permit. But in all such cases he puts his views forward as tentative, and appears to be quite ready to give them up should other and more conclusive ones be established. While we are finding fault, we may mention a character which strikes us as being singularly apparent in the present volume, and that is, the scrap-book tendency of the book. There sometimes is a want of that clear, calm, and closely-reasoned mode of giving examples and of drawing deductions which is so essential in a work like the present. Of course it is only in occasional instances that it is apparent, but if it were avoided the book would be unquestionably improved. To be sure, the last chapter is clearly logical; but then this is to our minds, if anything, a little too conclusive, when we consider how extremely rudimentary are the facts. Still, *tout entier*, the book is marvellous in its forcible and terse dealing with a vast multitude of facts; and the illustrations which the author has given are as effective as they are truthful renderings of physiognomic facts.

MANUAL OF PALÆONTOLOGY.*

THERE can be little doubt that, as the author says, there is a want of a good treatise on Palæontology. Indeed, that want has been sadly felt by students. For it has been impossible to find in the English language any treatise on the general history of fossil organisms which was quite within the range of the student, and withal gave some account of the more

* "A Manual of Palæontology for the Use of Students, with a general Introduction on the Principles of Palæontology." By Henry Alleyne Nicholson, M.D., D.Sc., B.A., F.G.S., Professor of Natural History in University College, Toronto. Edinburgh: Blackwood & Son. 1872.