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## "ERASMUS DARWIN," \*

THE title-page of this book fails in one respect to give a fair representation of the contents: for Mr. Darwin's memoir of his ancestor, introduced under the modest name of a preliminary notice, is in fact a good half of the volume, and not the less interesting half. It appears that Robert Darwin, the father of Erasmus, had some turn for natural science; so that Mr. Darwin's family is an even stronger example of hereditary genius than we already knew it to be. Erasmus showed a taste for both poetry and mechanics at an early age. That he was ready with his pen at the age of sixteen we see by a very droll correspondence in which his sister Susannah consulted him on the question of fasting, and sent him "A Diary in Lent," showing her own performance in that way. Erasmus replied in a sufficiently well-maintained tone of solemn banter, and with a good command of language. The point of conscience on which Susannah specially desired his opinion is too singular to be passed over. She wrote:—"As soon as we kill our hog I intend to take part thereof with ye Family, for I'm informed by a learned Divine yt Hog's Flesh is Fish, and has been so ever since ye Devil entered into ym and they ran into yo Sea; if you and the rest of the Casuists in your neighbourhood are of ye same oppinion, it will be a greater satisfaction to me, in resolving so knotty a point of Conscience." It is not easy to believe that she took the learned divine's doctrine seriously (he might have made it more plausible by appealing to herring-hog, still a current name for the porpoise among seamen); but the diary of her fasting is serious enough.

After a course of general and medical study at Cambridge and Edinburgh we find Erasmus Darwin settled in practice at Lichfield in 1756, and married in the following year. His subsequent life, though active, was not eventful; and Mr. Darwin has avoided the formal appearance of a continuous chronicle and given us a general picture of the man. Among Erasmus Darwin's friends were Day, Josiah Wedgwood, Bolton, Watt, and Edgeworth; Hutton, "the founder of the modern science of geology," appears also to have been on familiar terms with him. From a letter of Hutton's Mr. Darwin quotes a vigorous and amusing paragraph on the necessity—for all who can afford it—of learning to let oneself be cheated. Of Dr. Darwin's well-to-do patients we hear very little; but his reputation was such that he had virtually the assurance of an appointment as Court physician if he had chosen to migrate to London. His dealings with the poorer sort were generous. This much at least is shown to have been notorious by two very curious anecdotes of their gratitude, which are given with considerable reserve as to their truth in detail. His capacity for just and generous feeling on a large scale is evidenced by his protest against slavery, a protest in which at the time he stood almost alone.

A vivid imagination, an "overpowering tendency to theorize and generalize," and "great facility in explaining any difficult subject," are set down as prominent in Dr. Darwin's intellectual character; students of the important and extensive subject of heredity will not fail to note with regard to these points that they are likewise prominent in the work which has made his descendant illustrious and cast back a reflected light upon the ancestor. The account of Erasmus's other descendants which will be found at page 80 of the memoir must not be omitted in this connection. He possessed likewise the rare quality of intellectual dis-interestedness. To forgive one's parodist is virtuous; to relish his parody is more than can be expected of human virtue: but it seems from Edgeworth's testimony that Erasmus Darwin cheerfully admitted the "wit, ingenuity, and poetic merit" of the "Loves of the Triangles." And the case was one of uncommon hardship, though perhaps the victim did not himself fully know it. Ever since the days of the Anti-Jacobin persons curious to know what "The Loves of the Plants" were like have found it the easiest and most pleasant way of satisfying their curiosity to read "The Loves of the Triangles" instead. On the subjects of education. sanitary arrangements, diet and exercise, Dr. Darwin's opinions were much

in advance of those current in his time. He was an earnest advocate of temperance in an intemperate age (not of the absolute rejection of all strong drink, though the modern total abstinence party claims him as a forerunner); and so far as his personal influence extended he achieved considerable success. He did not enter much upon general philosophical speculation, but he naturally did not escape being called an atheist. Mr. Darwin produces conclusive evidence that he was a theist. Apparently he resembled Voltaire in combining a strong belief in a Creator with a dislike of all dogmatic systems professing to embody a revelation. The Unitarianism of his day (which, it must be remembered, was still a dogmatic and supernatural system) did not attract him; he called it a feather-bed to catch a falling Christian. In Dr. Krause's part of this book is a remark from the "Zoonomia," which goes to the root of the question lately much agitated in various forms of the bearing of evolution on natural theology. "If we may compare infinities," said Darwin, "it would seem to require a greater infinity of power to cause the causes of effects than to cause the effects themselves." The same thought was unconsciously repeated long afterwards by Kingsley at the end of the "Water-Babies" (not the least philosophical of Kingsley's works), where we read that anybody can make things, but the real art is to make things make themselves.

It is unfortunate that the accounts of Dr. Darwin hitherto published have been mixed up with so much that is untrustworthy. The life published by Miss Seward in 1804 abounds in fictions, and some of them are malignant fictions. The character of the book was not unknown at the time, and one of the worst falsehoods was specifically contradicted. But the book was amusing and the contradictions were forgotten; and later writers have used it without suspicion. Miss Seward's fictions had sometimes, as is usual in such cases, a more or less solid foundation in fact. This appears to be the case with one of her oddest tales, which describes Dr. Darwin as "in a high state of vinous exhilaration" on a water-party on the Trent. The story runs that he swam ashore in his clothes, walked to Nottingham, and there "mounted on a tub and harangued the mob in an extremely sensible manner on sanitary arrangements." All this is on the face of it pretty improbable; but the story was to a certain extent confirmed by the host and owner of the boat, who was appealed to on the point after Miss Seward's publication.

It must be added that Mr. Darwin's memoir, apart from the interest of the subject, is a remarkably pleasing performance in its kind; it is written throughout with a certain happy simplicity of which he is a master. We now come to Dr. Krause's essay. His attention was turned to Erasmus Darwin by a hint given in the later editions of "The Origin of Species;" and we have here the result of a study of the elder Darwin's works which he thereupon undertook. And the result is both curious and instructive. In Erasmus Darwin, says Dr. Krause, "we find the same indefatigable spirit of research, and almost the same biological tendency, as in his grandson; and we might, not without justice, assert that the latter has succeeded to an intellectual inheritance, and carried out a programme sketched forth and left behind by his grandfather." Erasmus Darwin attacked precisely the same problems as his grandson, with a similar aim, and with the same kind of "perceptivity, amounting almost to divination," as to the solutions to be expected. And the conclusions at which he actually arrived were very much like those of Charles Darwin. Notwithstanding all this, Erasmus Darwin's work remained a sketch and no more. It was received by his contemporaries not only with incredulity but with indifference or ridicule, and was for all practical purposes out of mind until in our own generation the acceptance of the doctrine of evolution by an overwhelming majority of competent opinion has made it possible for us to estimate its real value. The failure of this work in its own time must not be put down wholly, or even chiefly, to the age not being ripe for it. The elder Darwin saw the future path of discovery in a general way; he collected and commented on many of the most significant facts, and his comments were right as far as they went. Dr. Krause quotes his notices of the rudimentary organs in various animals, of the defensive apparatus against insects occurring in immensely various forms in plants, and of the changes produced within direct human experience in domesticated breeds. But with all this his theory missed the weight and coherence which bring conviction. did not obtain its deserts; for it deserved, at any rate, to be regarded as an ingenious attempt in the right direction; but it cannot be said that the refusal of the scientific world to accept it in that form was unjust. One thing was wanting, and the defect was vital. Erasmus Darwin never laid hands on the master-key of natural selection. There is no more striking example of the manner in which the most ingenious accumulations of facts and partial hypotheses may remain comparatively barren until some secular coincidence of industry and genius strikes out the idea by which the materials are knit together in a lasting fabric. It is noteworthy that Erasmus Darwin himself had at certain points the sense of something wanting (see Dr. Krause's note at p. 182). We find likewise one or two interesting examples of apparently minute errors of fact which have led to a whole train of wrong explanations, and thus obscured the true state of the case. Erasmus Darwin was wholly mistaken as to the function of honey in the economy of plants; and Dr. Krause shows in detail how far this led him astray. Altogether the facts established by Dr. Krause's essay thoroughly justify its concluding words: "Erasmus Darwin's system was in itself a most significant first step in the path of knowledge which his grandson has opened up for us, but to wish to revive it at the present day, as has actually been seriously attempted, shows a weakness of thought and a mental anachronism which no one can envy." But the confidence of writers who deal in semi-scientific paradoxes is commonly in inverse proportion to their grasp of the subject.

Mr. Dallas's part in this volume must not go unnoticed. We have not seen the original, but his translation has every appearance of being thoroughly well executed; and, what is not easy to attain in translating from German, it is pleasant reading and all but irreproachable English.

[ 1968 ]

<sup>\* &</sup>quot;Erasmus Darwin." By Ernst Krause. Translated from the German by W. S. Dallas. With a Preliminary Notice by Charles Darwin. (London: John Murray. 1879.)

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