

**THE LIFE AND WORK OF CHARLES  
DARWIN; A LECTURE DELIVERED  
TO THE LEEDS PHILOSOPHICAL  
AND LITERARY SOCIETY**

Published @ 2017 Trieste Publishing Pty Ltd

ISBN 9780649326822

The Life and Work of Charles Darwin; a Lecture Delivered to the Leeds Philosophical and Literary Society by L. C. Miall

Except for use in any review, the reproduction or utilisation of this work in whole or in part in any form by any electronic, mechanical or other means, now known or hereafter invented, including xerography, photocopying and recording, or in any information storage or retrieval system, is forbidden without the permission of the publisher, Trieste Publishing Pty Ltd, PO Box 1576 Collingwood, Victoria 3066 Australia.

All rights reserved.

Edited by Trieste Publishing Pty Ltd.  
Cover @ 2017

This book is sold subject to the condition that it shall not, by way of trade or otherwise, be lent, re-sold, hired out, or otherwise circulated without the publisher's prior consent in any form or binding or cover other than that in which it is published and without a similar condition including this condition being imposed on the subsequent purchaser.

[www.triestepublishing.com](http://www.triestepublishing.com)

**L. C. MIALL**

**THE LIFE AND WORK OF CHARLES  
DARWIN; A LECTURE DELIVERED  
TO THE LEEDS PHILOSOPHICAL  
AND LITERARY SOCIETY**



THE  
LIFE AND WORK  
OF  
CHARLES DARWIN;

**A Lecture**

DELIVERED TO THE LEEDS PHILOSOPHICAL AND LITERARY  
SOCIETY,

*On February 6th, 1883.*

BY  
PROF. L. C. MIALL.

---

**Leeds:**  
RICHARD JACKSON, 16 & 17, COMMERCIAL STREET.  
1883.

S 1317.570  
~~MIT 281175~~

HARVARD  
UNIVERSITY  
LIBRARY  
46\*254

#### NOTE.

**U**NTIL the Life of DARWIN by Miss Arabella Buckley shall appear, our information respecting his personal history will probably remain slight and deficient in detail. The "Memorial Notices," reprinted from *Nature*; an article in the *Modern Review*, for July, 1882, by Dr. W. B. Carpenter; and an obituary notice in the Proceedings of the American Academy for 1881-82, are the published accounts which I have found most useful in the preparation of this Sketch.

T. C. M.

1

2

3

4

5

6

7

8

9

10





## CHARLES DARWIN.

---

**T**HE most notable of CHARLES DARWIN'S ancestors was his grandfather, Dr. Erasmus Darwin,\* who was a physician in large practice at Lichfield from 1756 to 1781. Erasmus Darwin was a mechanician, a naturalist, and a poet. He was famed for his inventions: all intended to abridge labour or serve mankind, and most of them practical and valuable. He contrived a horizontal windmill, to grind flints for Wedgwood's pottery; a lamp on the moderator principle; a candlestick which would draw out like a telescope; a manifold writer; a knitting loom; a weighing machine; a flying bird; a canal lock; a rotatory pump; wheels with elastic spokes; and a speaking machine. He proposed a large-wheeled carriage, like that afterwards contrived by Moore, but with many ingenious features of its own. Dr. Darwin was thrown from this carriage in 1768, and limped ever after. He had a speaking-tube put

---

(\* Most of these particulars are to be found in Krause's "*Erasmus Darwin*," with Preliminary Notice by Charles Darwin. (London, 1879.)

up in his house, to convey messages to the kitchen ; and we are told how a countryman waiting below stairs was horrified to hear a sepulchral voice issue from a dying fire and say distinctly, "I want some coals." He was a member, with Priestley, Boulton, Watt, Galton, and Withering, of the famous Lunar Club, which dined together at Birmingham every month, at or near the full moon, for convenience of getting home.

The most curious of his biological speculations are those which turn upon the origin of species. He saw that organisms were not definite, unchangeable creations, but that they reflected the vicissitudes of the earth's surface, besides incorporating in themselves the product of incessant mutual competition.\* Not a few passages might be cited as anticipations of the discoveries of his illustrious grandson, such as the notes on mimicry† and insect defences.‡ He regarded a plant not as a mere collection of organs, but as a system of individuals—as the best physiologists of this century also do. An interesting note to the "*Economy of Vegetation*"§ gives an exact and far-seeing view of the function of starch in the economy of plants. Among other anticipations of modern dis-

(\*) "*Zoonomia*." Vol. II. Sect. xxxix. 4-8.

(†) "*Economy of Vegetation. Poet. Works*." Vol. I., note to p. 228 ; and Vol. II., p. 48.

(‡) Vol. II., pp. 19, 22, 31, 46, 47.

(§) Vol. I., p. 217.

coveries, we find that he was aware of the effect of high temperatures upon animals, causing paralysis of the vessels, and permanent dilatation with fall of temperature. Without having heard of Rosenthal's experiments, he had foreseen not only the result, but the cause of the result.

But Erasmus Darwin was, above all, a utilitarian, and in everything looked for some appreciable and direct good to his fellow-men. He advocated, as Hunter had independently done, the use of bone-dust for manure; sewage was not to be cast into rivers, but spread upon the land; burial-grounds were to be removed from the neighbourhood of houses; every town was to be supplied, not with river-water and surface wells, as was the rule in 1760, but with the purest and softest water, caught in artificial reservoirs, or drawn from artesian wells, as is happily the rule in 1883. Ventilation, wholesome diet, and exercise, he advocated as the cardinal points of physical management. It does not lower our opinion of a man so accomplished, so penetrating, and so deeply interested in the great concerns of mankind, to come now and then upon whimsical conceits. He had, for instance, great faith in the instincts of the child; used to let his children eat and drink what they pleased; and was delighted to see them devour great quantities of fruit and cream. It was comical to his contemporaries, but less re-