

PREFACE

IN a book of the size to which the Cambridge Manuals of Science and Literature are limited, it is plainly impossible to treat in detail every aspect of a subject like Heredity. One of the chief difficulties, therefore, which I have encountered in preparing this little book has been to decide what to leave out. To some it will doubtless seem that parts of the subject have been treated too fully, and other important branches omitted or barely mentioned, but my aim has been to give the reader a sketch of the most important lines in which recent advances have been made. There are many excellent works dealing with the older theories—and in this subject age is measured by very few years,—but our knowledge has increased so greatly and is still progressing so quickly that books become out of date almost as soon as they are published. My attempt, then, has been to deal chiefly with the quite modern developments of the subject, and in order that the reader who is not very familiar with the matter may feel he is on fairly sure ground,

and not confuse fact with speculation, I have tried to avoid purely speculative questions in the body of the book, and have devoted a few pages to one of the most interesting of these in an appendix, together with a historical summary of Theories of Heredity. There are many, of course, who will regard parts of the chapters dealing with Mendelism as consisting largely of speculation; I can only reply that I regard the facts referred to as established, and the theoretical deductions from them as the only ones that have yet been offered which can fit them adequately.

No attempt has been made to quote authorities for every statement, but a list of books and papers is given in which a further account will be found of the subjects treated. The numbers in square brackets [] in the text refer to this list. I have also followed the example set by Mr Lock in providing a glossary of unfamiliar terms of which the use has been unavoidable.

For the chapter on Statistical Study of Inheritance my chief sources of information have been Prof. Pearson's *Grammar of Science* and his numerous papers on the subject published by the Royal Society and in *Biometrika*. I have tried to summarise in words the results of his work, and of that of other workers on similar lines, and if the inadequacy of my mathematical knowledge has led me into any serious errors in the attempt, I owe them my apologies.

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Chiefly of course I am indebted to Prof. Bateson's recent work on *Mendel's Principles of Heredity* as the most complete and authoritative account of the subject, from the acknowledged leader of the Mendelian school. For permission to reproduce several figures from this book I tender my thanks. In addition to information from many original papers, I have also not hesitated to make use of Lock's *Recent Progress in the Study of Variation, Heredity and Evolution*, Thomson's *Heredity*, and some other books dealing with the general aspects of the subject; to these authors, and to several friends who have been kind enough to give me written information on matters with which they are especially conversant, I wish to record my indebtedness. I wish also especially to thank Mrs A. C. Seward for drawing the sections of *Primula* reproduced in fig. 10 (p. 81).

L. DONCASTER.

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