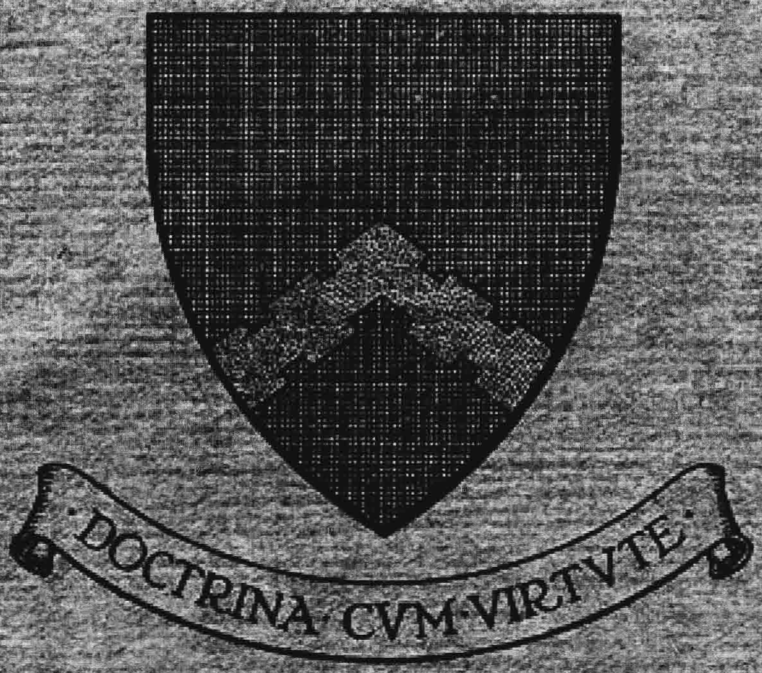
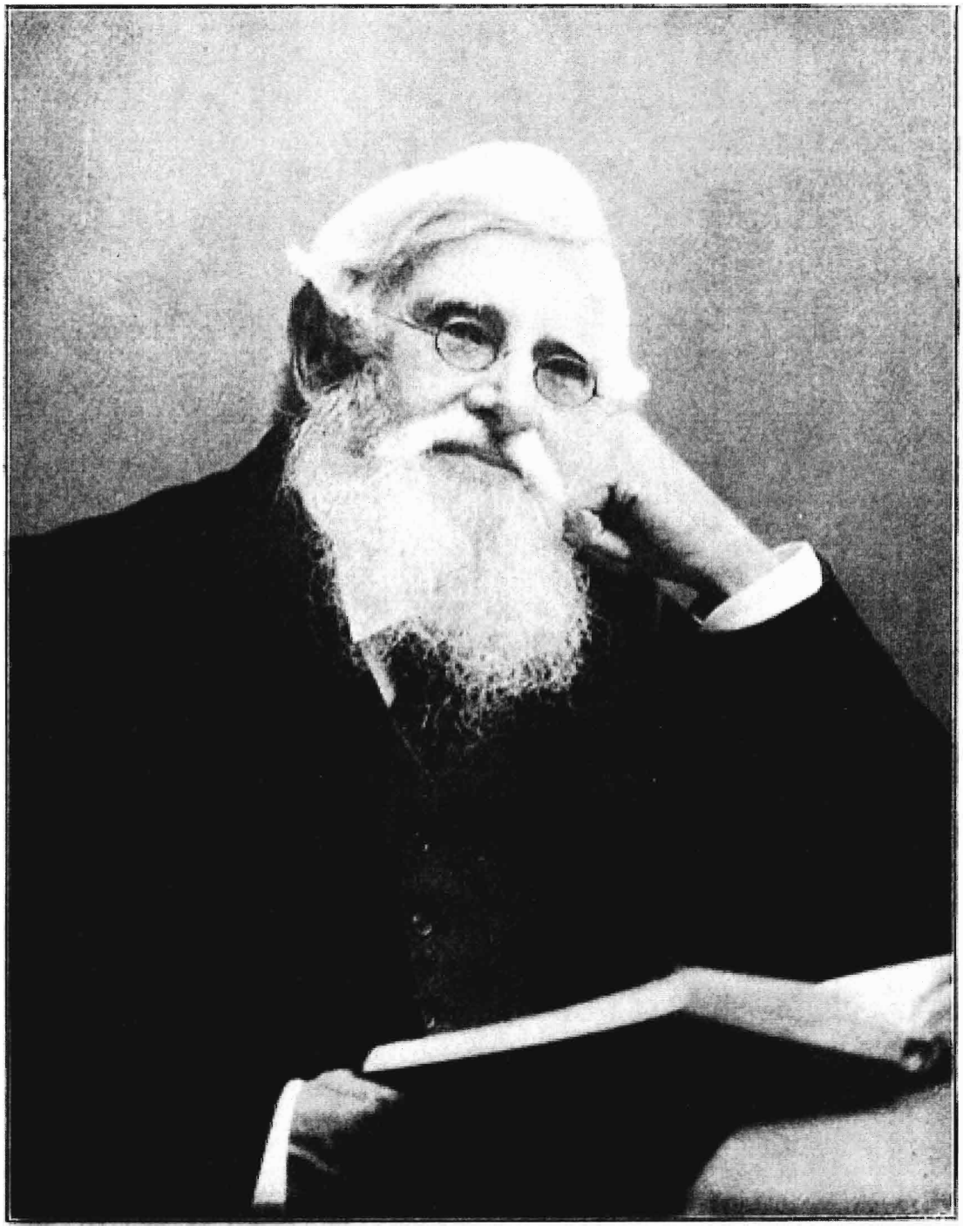
A Great Hertfordian





Alfred R. Wallace

ALFRED RUSSEL WALLACE

O.M., LL.D, D.C.L., F.R.S.

A Great Hertfordian

by

G. W. Kinman, M.A.

Hertford
Stephen Austin and Sons, Ltd.
1914

κουφονόων τε φῦλον ὀρνιθων ἀμφιβαλὼν ἄγει
καὶ θηρῶν ἀγρίων ἔθνη πόντου τ' εἰναλίαν φύσιν
περιφραδὴς ἀνήρ.

A Great Hertfordian

THE photograph of Dr. Wallace, which forms the frontispiece of this book, is a reproduction of the one he presented to Hertford Grammar School shortly after his enrolment in the Order of Merit—that distinguished First Eleven of English civilians in which he was associated with Viscount Morley, Lord Rayleigh, the Earl of Cromer, Sir G. O. Trevelyan, Sir Joseph Thomson, Sir Edward Elgar, Sir William Crookes, Professor Henry Jackson, James Bryce, and Thomas Hardy as the team that this country might put into the field if Olympic contests were of an intellectual character. But, perhaps, he alone of that team might have claimed a place if the contest had been one that required sheer pluck and endurance of physical hardship. In estimating his rank among the famous Victorians the numerous writers who have dealt with his life have allowed the work he did as a scientific author to overshadow his claim to distinction as an explorer. Yet it is not too much to say that the story of his early manhood is a romance as interesting as any that the nineteenth century produced, and its record has formed the groundwork of many tales of tropical adventure that have delighted young people for the past sixty years.

Like the majority of Grammar School boys, he had to earn his own living as soon as his schooldays were over, but, while working, first as a surveyor and afterwards as an assistant master, he devoted all his spare time to 'the passion for collecting', and it soon became evident that his native land

afforded no sufficient scope for his efforts; the call of the Unknown was always in his ears and his response to it was typical of the man. At the age of 25, with no resources except his own scanty savings and an unexpected legacy of £50 from a Hertford relative, he set out for the Amazon 'because of the little that was known of it'. He proposed to pay his expenses by making collections in natural history, and for four years he was journeying on the streams and wandering in the forests of the Amazon Basin, frequently alone in regions where no European had been before him. He possessed little or none of the equipment that the average explorer finds necessary. His scientific instruments consisted of a compass, a lens, two thermometers—of which one was soon lost and the other broken—and a pocket surveying sextant. He estimated altitude by observing the falls of the river and the character of the current between them, and found his latitude by an ingenious arrangement of a plumb-line and lens, checking his results by obtaining the meridian altitude of a star from its reflection in water. Two months after his arrival at the mouth of the Amazon he sent home his first collection. It consisted of no less than 1,300 different species.

Then began his great journey up the Rio Negro and its tributaries, 1,500 miles of unexplored rivers and forests. He had none of the appliances that make life under the Equator tolerable for white men. He slept in the open or in the huts of natives, and lived on their food, on the fish they caught in the streams and the creatures they slew with their blow-pipes. At times he was struck down by fever and unable to continue his advance, but these days of inactivity were not days of rest, they were spent in writing up his notes on the languages and

customs of the people, in arranging his specimens, and in making drawings of those he could not take with him.

At last, when near the farthest point to which vessels could penetrate, he was compelled to face the task of conveying his precious harvest down the stream. The difficulties were enormous. He had to patch up native boats, and trust to the precarious help of native boatmen, who generally deserted when they reached the limit of their own territory. Boats and baggage alike had to be carried overland when the numerous falls were reached, and on one occasion, with the aid of a man and a boy, he shot rapids that were never attempted except by well-found boats with six or eight strong paddlers.

Half dead with ague and lame from the effects of ' chegoes ', he reached Para, to find the town in the grip of yellow fever from which his brother had died some months before. He arranged for his passage home in the only available vessel, a brig of 235 tons ! During the voyage the ship took fire. Wallace, still weak from hardships and illness, spent ten days in an open boat, living on scanty rations of biscuit and uncooked meat, and suffering agonies from thirst, for the last drop of water on board was consumed before a passing ship came to the rescue, when they were still 200 miles from the nearest land. With the exception of two old notebooks and a few drawings, all the material collected during the preceding two years had been destroyed with the ship.

After such an experience a long period of recuperation would have been thought necessary by most men, but as soon as he landed in England Wallace set to work on his book, *Travels on the Amazon and Rio Negro*. It was published

in 1853, a period when some of the greatest masters of English prose were in the full bloom of their powers, and the charming simplicity of its style at once gave Wallace a place among them. With *The Malay Archipelago* it ranks as one of the world's greatest books of travel. Many years, however, elapsed before the work produced any revenue. The first edition was published on the 'half-profits' system, and the author's share amounted to nothing at all. But the book brought him to the notice of Huxley and Murchison, through whose influence he obtained a Government passage to Singapore in order that he might begin the work with which his name will always be associated, the thorough exploration of that vast continent of islands that lies between Asia and Australia for a space 4,000 miles in length and 1,300 miles in width.

His main energies were, of course, devoted to studying the natural history of the region, and, during his eight years' exile, he collected more than 125,000 specimens belonging to over 13,000 different species. But vast portions of the region were utterly unknown at this date. In one of his letters home he defied the whole Royal Geographical Society to locate the place from which he was writing, and much time and labour were expended on researches into the physical geography and ethnology of the various groups of islands. Within the Archipelago he travelled 14,000 miles, made notes on the fifty-seven different languages that he found in use among the natives, and collected sufficient information to warrant a division of the whole region into two distinct portions—the Asiatic and the Australian. He fixed the exact position of the boundary between them, to which grateful geographers have given the name of 'Wallace's Line', and no small part of this gigantic

task was accomplished in a native 'prau', which he purchased for £9, and repaired as best as he could with a few carpenter's tools that he had brought with him.

He fixed his headquarters at Ternate, an island in the Moluccas, at which Drake touched when sailing round the world, and in February, 1858, Wallace was laid up there with a bad attack of fever. Throughout his life he seems to have acted on the principle that bodily exhaustion is no excuse for mental inertness, and during his convalescence he strove to think out some theory that might account for the infinite species of living things, some laws that might exist in the luxuriant jungle of animal life, as the laws of Newton exist in the world of inorganic matter. Ideas came to him 'in a flash of insight'. The main lines of his essay were settled in a few hours, and within a week it was written out on thin letter paper and dispatched to Charles Darwin, who for the past twenty years had been laboriously collecting material for the work that was afterwards issued as *The Origin of Species.*

To Darwin the essay came 'like a thunderbolt from a cloudless sky', for he found in it the very terms he had selected as chapter-headings. 'My originality is smashed,' he wrote, and he wished to defer any publication of his own views until Wallace's essay had been presented to the Linnean Society. But Hooker and Lyell, who were acquainted with the lines on which Darwin had been working, felt that this unique coincidence should not be allowed to deprive a philosopher of the credit due to him for the labour of a lifetime, and at the meeting of the Society on July 1, 1858, some of Darwin's earlier notes were read together with Wallace's essay.

The members separated without discussion; the subject was too deep, and the conclusions too revolutionary for unprepared debate. The publication of *The Origin of Species* was hastened, and a mighty struggle began. On the Continent the new views were at once adopted with enthusiasm, and formed the starting-point for fresh developments of knowledge that might almost be termed new sciences, but in this country a kind of self-complacent paralysis was creeping over our intellectual life. It was assumed that all the great discoveries had been made, and that nothing remained for future generations, except the working out of unimportant details. Religion—or rather religious intolerance—was pressed into the fight, though bigotry should have been disarmed by Darwin's concluding words:—'There is a grandeur in this view of life, with its several powers, having been originally breathed by the Creator into a few forms or into one; and that while this planet has gone cycling on according to the fixed laws of gravity, from so simple a beginning, endless forms most beautiful and most wonderful have been, and are being, evolved.'

The gratitude of mankind is due to those who fought on the side of intellectual freedom against the forces of ignorance and unfounded prejudice; and though at times the men of science were inclined to extend unduly the borders of their empire—Wallace himself was unable to accept all Darwin's conclusions, particularly those in *The Descent of Man*—it is to these men that we owe not merely that freedom of scientific speculation which has produced the marvellous developments of the past half-century, not merely our intellectual advancement, but our truer conception of the

meaning of God's Word to man, our deeper reverence for the workings of His Spirit, and our higher ideal of Christianity freed from superstition.

Wallace returned home to take a prominent part in the conflict. He found himself a famous man, and for a short time tasted the delight of being lionized in London ; but though he was brought into contact with the greatest men of the day—the roll of his friends and life-long correspondents would include all the distinguished names in science and literature—he found that for his special work a more peaceful life was necessary, and, after a lecturing tour in the United States and the publication of *The Malay Archipelago*, which brought him the Gold Medal of the Royal Society, he spent the rest of his years in retired spots, at first in Essex, then in Surrey, and afterwards near Bournemouth, producing those monumental works which have become classics in the subjects they treat—*The Geographical Distribution of Animals*, *Island Life*, *Tropical Nature*, and *Darwinism*, any one of which would be sufficient to win a man's reputation as a scientific author. He contributed to the *Encyclopædia Britannica* and scientific periodicals innumerable articles, all marked by the same clearness of expression and the orderly arrangement of accumulated information. At times he came forth from his retirement, occasionally to receive from Universities and Learned Societies the honours that were his due, once to act as a pall-bearer at Darwin's funeral in Westminster Abbey, and once to devise and conduct the historic experiment on the Bedford Level, by which was demonstrated the convexity of surface in a stretch of inland water.

He wrote his autobiography, *My Life*, when he was over

80, and perhaps the proudest day of that life came to him when he had lived for fifteen years beyond the allotted span. On July 1, 1908, the Linnean Society of London celebrated the fiftieth anniversary of the day on which the Darwin-Wallace papers were read. Few assemblies could be compared with that which met together to do honour to the survivor of the two great leaders. The German Emperor, the King of Sweden, the Universities and Learned Societies of many lands sent their most distinguished men as representatives with addresses of congratulation. A special medal had been struck, and the bearers of the noblest names in the world of intellect came to offer their homage. After the delegates had been presented and the addresses read, the enthusiastic applause of the audience broke out as Dr. Wallace came forward to receive his medal. The President spoke of the noble rivalry in which each discoverer had striven to exalt the claims of the other, of the generous interest Wallace had shown in the careers of younger men who were endeavouring to follow in his footsteps, and of the unequalled modesty that gave the title of *Darwinism* to his great exposition of the joint theory.

Many were afraid that the strain of the journey from Bournemouth followed by long proceedings and the excitement of addressing such an audience would prove too much for the frail-looking veteran when he began his reply, but his speech was a model of simple eloquence without a single false note in it. His hearers hung upon his words as he described some of the preliminary work that had influenced the life-history both of Darwin and himself, the beetle-collecting, and the almost child-like interest in the outward form of living things, the curious series of correspondence both in mind,

environment, and reading which led them alone among their contemporaries to reach identically the same theory. He himself had been 'a young man in a hurry', and he would have had no cause for complaint if his share of the glory had been in the proportion of one week to twenty years.

One sentence gave the clue to some of his later writings in which he has at times expressed unpopular and possibly injudicious opinions on psychical and sociological questions. 'It is for the common good,' he said, 'that the promulgation of ideas should be free—uninfluenced by either praise or blame, reward or punishment.' His audience felt that none of his opinions had been put forward for the sake of personal gain or glorification, but had been advanced with the single aim of helping his fellow-men on the road to the truth as he conceived it.

Replicas of the medal were then presented to Hooker, Haeckel, Weismann, Strasburger, Galton, and Ray Lankester, most of whom offered their tribute of praise to the hero of the day. When the ceremonies were over many friends came to him with their greetings, but amid the congratulations of the great ones he found time to make inquiries as to the progress of his old school and to express the hope that new developments had not caused the trees to disappear from the playground.

Then came five years of peaceful industry, continued until he had passed his ninetieth birthday, and almost up to the day of his death in November, 1913.

To be placed on his grave in Broadstone Churchyard the boys of his old school sent a floral shield of the school arms, together with its motto, 'Doctrina cum Virtute,' as a tribute

to one whose life had shown that deep learning could be linked with true manliness. Men of science and men of letters have united to raise a national memorial of his achievements, but the people of Hertfordshire must undertake the pious duty of erecting a local monument to his memory. He received the whole of his education at Hertford Grammar School, his father is buried in St. Andrew's Churchyard, his mother was a member of a family whose name appears in some of our oldest records—the Greenells are mentioned in connexion with Hertfordshire as far back as 1579, and her grandfather was Mayor of the Borough in 1773 and 1779—and it was in the lovely woods and valleys of this shire that he first began to study the wonders of Nature. It has been decided that the monument shall take the form of a Wallace Laboratory to be erected in the grounds of the Grammar School, and this brief record of his life has been written in the confident hope that many to whom this district is dear will be glad to assist in raising a worthy memorial to the greatest of Hertfordians.