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Until the nineteenth century, the investigation of natural phenomena, plants and animals was considered either the preserve of elite scholars or a pastime for the leisured upper classes. As increasing academic rigour and systematisation was brought to the study of 'natural history', its subdisciplines were adopted into university curricula, and learned societies (such as the Royal Horticultural Society, founded in 1804) were established to support research in these areas. A related development was strong enthusiasm for exotic garden plants, which resulted in plant collecting expeditions to every corner of the globe, sometimes with tragic consequences. This series includes accounts of some of those expeditions, detailed reference works on the flora of different regions, and practical advice for amateur and professional gardeners.

The Trees of Great Britain and Ireland

Although without formal scientific training, Henry John Elwes (1846–1922) devoted his life to natural history. He had studied birds, butterflies and moths, but later turned his attention to collecting and growing plants. Embarking on his most ambitious project in 1903, he recruited the Irish dendrologist Augustine Henry (1857–1930) to collaborate with him on this well-illustrated work. Privately printed in seven volumes between 1906 and 1913, it covers the varieties, distribution, history and cultivation of tree species in the British Isles. The strictly botanical parts were written by Henry, while Elwes drew on his extensive knowledge of native and non-native species to give details of where remarkable examples could be found. Each volume contains photographic plates as well as drawings of leaves and buds to aid identification. The species covered in Volume 1 (1906) include beech, spruce and yew.

The Trees of Great Britain and Ireland

VOLUME 1

HENRY JOHN ELWES
AUGUSTINE HENRY

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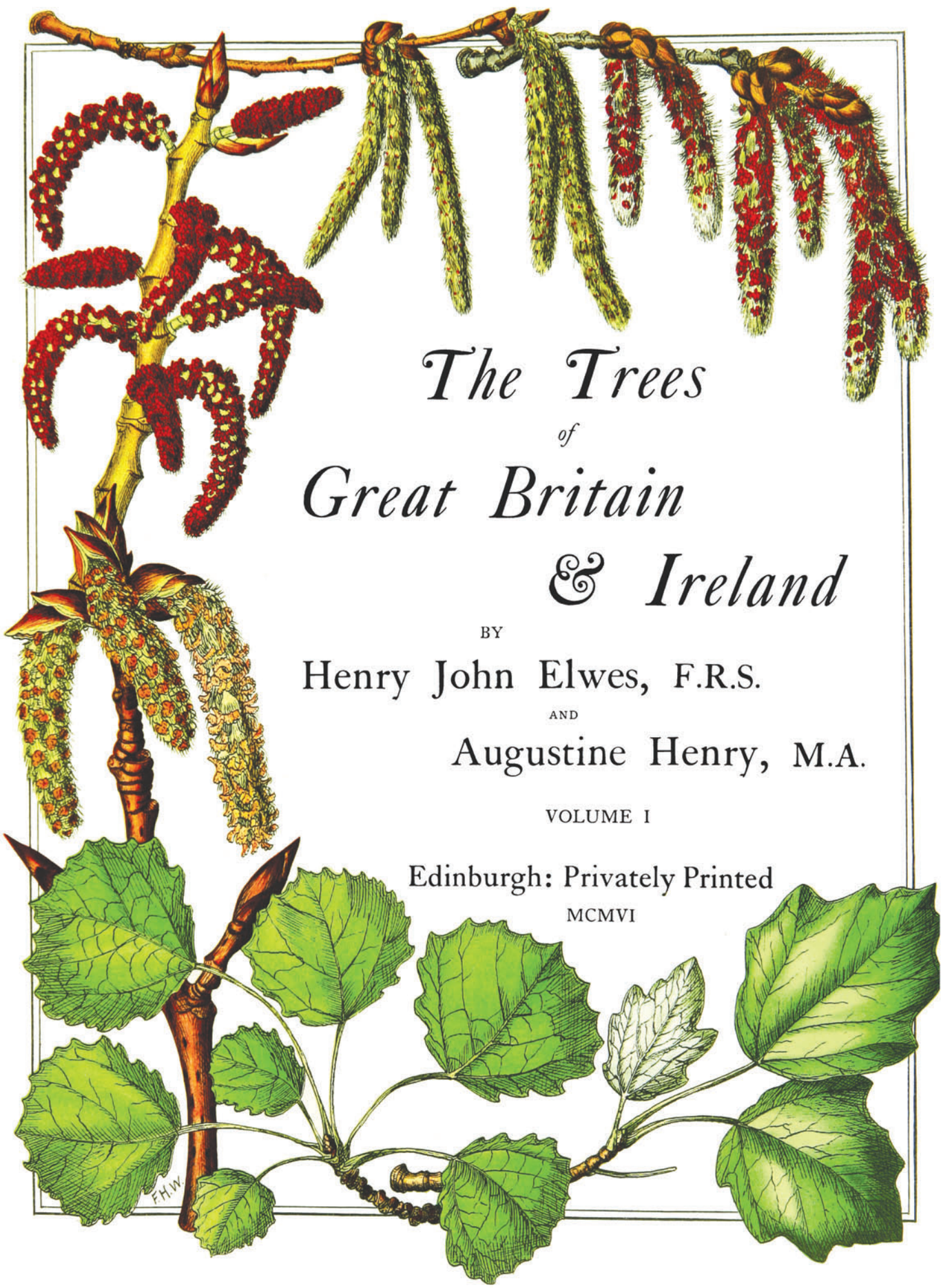
THE TREES OF GREAT BRITAIN AND IRELAND

QUEEN BEECH AT ASHRIDGE

From a Drawing lent by the Earl Brownlow.



The Trees of Great Britain & Ireland

BY

Henry John Elwes, F.R.S.

AND

Augustine Henry, M.A.

VOLUME I

Edinburgh: Privately Printed

MCMVI

DEDICATED

BY SPECIAL PERMISSION

TO

His Majesty King Edward VII

BY

HIS OBEDIENT HUMBLE SERVANTS

THE AUTHORS

PREFACE

THE United Kingdom offers a hospitality to exotic vegetation which finds no parallel in the Northern Temperate region of the globe. Never parched by the heat of a continental summer, the rigour of winter is no less tempered by its insular position. The possession of land still ensures the residence on their properties of a large number of persons of at least moderate affluence. The most modest country house possesses a garden, and not rarely some sort of pleasure ground; and this usually reaches the dimensions of a park in the case of the larger mansions. While forests for the commercial production of timber such as are found in foreign countries hardly exist, and the methods of their scientific management are little recognised, arboriculture of some sort may be almost said to be a national passion. In all but purely agricultural districts the free and unrestrained growth of trees enhances, if it does not create, the natural beauty of the landscape. The Roman occupation brought to our shores our fruit-trees and others whose names of Latin derivation bear witness to their foreign origin. One of these, the so-called "English Elm," dominates the landscape of Southern England. Yet, while it perfects its seed on the Continent, it rarely does so in this country, and it holds its own by root suckers, the tenacity of which is all but ineradicable.

Down to the reign of Henry the Eighth the native forests supplied the timber necessary for construction. It was not till their area became restricted that planting was commenced to maintain the supply. And if this has never developed into a scientific system as it has done abroad, the reason may be found in the abandonment of wood as fuel for coal, and the facilities for external supply of over-sea water-carriage which attach to a maritime country.

From an early time with the growth of continental intercourse, the contents of foreign gardens had gradually been transferred to those of the wealthy at home. The taste, however, for cultivating foreign trees and shrubs simply for their interest, and apart from any useful purpose they might serve, is not more recent than the seventeenth century. The pioneer in this branch of English arboriculture was Henry Compton, Bishop of London, who planted in the garden of Fulham Palace "a greater variety of curious exotic plants and trees than had at that time been collected in any garden in England." Hitherto the European continent had

been the only hunting ground. To this was now added in striking contrast the resources of the North American forests.

In the eighteenth century the practice of planting foreign trees became in some degree a fashion amongst wealthy landowners, though still mainly for ornament. This was due in large measure to the example of Archibald, third Duke of Argyll, who formed a large collection at Whitton. After his death in 1762 all that were removable were transferred to Kew, where an Arboretum had been commenced by the Princess Dowager of Wales.

An intelligent taste for arboriculture was at any rate for a time firmly established. Those who care to trace its further history more in detail will find abundant information in Loudon's *Arboretum et Fruticetum Britannicum*, a work which, though published more than half a century ago, must always remain indispensable to any student of the subject. Parks and pleasure grounds throughout the country were stocked with specimens of new and interesting trees. And though often neglected and even forgotten, we now possess a wealth of examples which have attained adult development. Loudon catalogued with indefatigable industry every tree or shrub known to be tolerant of the climate of the British Isles. It might have been thought that this laborious undertaking would have excited a new interest in planting. But it began to languish with the beginning of the last century, and Loudon's labours from their very completeness, perhaps, deterred many from engaging in an occupation where more than moderate success would seem costly and laborious, and anything beyond almost unattainable. In 1845 a National Arboretum was projected at Kew, and commenced the following year on a plan prepared by W. A. Nesfield.

The latter half of the last century saw a remarkable development of open-air horticulture. In so far as this included woody plants, it was limited to shrubs. Broad-leaved trees were little cared for. The rarer kinds were little in request, and those that were planted were too often drawn from the ill-named stock of some convenient nursery. The neglect was increased when conifers became a fashion. This led, no doubt, to many fine Pinetums being planted, the interest and importance of which will increase with age. But it led also to much unconsidered and scattered planting of trees which, attractive enough in a juvenile state, are often less sightly as they grow older, and can never blend with their broad-leaved neighbours into stately umbrageous masses.

If the planting of broad-leaved trees as distinguished from conifers has for the moment fallen into neglect, we still inherit the results of the labours of our predecessors. The British Isles for the last two centuries have, in fact, been the seat of an experiment in arboriculture without parallel elsewhere. And the very neglect into which tree-planting has fallen, paradoxical as it may seem, adds to the interest and value of the experiment. For the trees that have come down to us from the

past have been subjected to the least favourable conditions, and have had in effect to survive a somewhat rigorous process of natural selection.

In taking stock of the results, the task which my friend Mr. Elwes has set himself differs, if I understand his intention rightly, somewhat widely from that which Loudon accomplished. That amounted to little more than a descriptive catalogue of every woody plant the cultivation of which had been attempted in this country. The present work aims at ascertaining the practical results. What are the most favourable conditions for the growth of each species? What in turn are the most suited for different circumstances? And what, if any, profit can be derived from their cultivation on a large scale?

And to accomplish or even attempt such a task appears to me no small public service. The depreciation of the value of agricultural land has turned the thoughts of many landowners to the possibility of growing timber as a crop for profit. So far little attempt has been made to depart from tradition. Yet it cannot be doubted that there must be many trees suited to our climate whose commercial possibilities are still unascertained. Apart from the larger uses of timber its employment for minor industries is still little regarded among us. If but a single tree can be added to the list of those which can be profitably cultivated the labour spent on the quest will not be unrequited.

W. T. THISELTON-DYER.

KEW, *November* 1905.

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INTRODUCTION

THE object of this work is to give a complete account of all the trees which grow naturally or are cultivated in Great Britain, and which have attained, or seem likely to attain, a size which justifies their being looked on as timber trees; but does not include those which are naturally of shrubby or bushy habit.

Although sixty years have passed since Loudon's great work was published, no book has been written which describes in full the species which in his time were unknown, or so recently introduced that their cultural requirements and economic or ornamental value had not been tested.

Many deciduous trees, which were commonly planted before his time, have gone out of popular favour, and are almost forgotten; whilst the rage for conifers which sprang up about seventy years ago has led to the introduction of almost every species which can be grown in this country; and many of these have now reached an age at which their value can be accurately judged of.

Special books dealing with conifers have appeared which may satisfy the wants of a horticulturist, but none exists that at all meets the requirements of land-owners, foresters, and arboriculturists, and will enable them to distinguish the species with certainty, or guide them in selecting the species the best suited for economic culture in different parts of England.

Forestry is at last making headway as a science in this country, but too many of the books recently published on the subject have been based on continental experience, which is not directly applicable to the very different conditions of climate, soil, labour, and market existing here. In the cultural part of the work we base our conclusions on home experience and practice; and in this connection it may be stated that for almost every exotic species there are older specimens of individual trees and of plantations in these islands than on the Continent. After having seen the trees of every country in Europe, of nearly all the States of North America, of Canada, Japan, China, West Siberia, and Chile, we confidently assert that these islands contain a greater number of fine trees from the temperate regions of the world than any other country. Descriptions of the best examples of all of these and of interesting woods and plantations will be a prominent feature of the book.

We have the special qualification that we have seen with our own eyes and studied on the spot, both at home and abroad, most of the trees which will be included in the book.

Knowing how difficult it is for the general public to understand the descriptions of nearly allied species, usually made by compilers who are unacquainted with the crucial points of distinction, we hope to supply this information in concise, clear, and simple language. What we understand by scientific knowledge is accuracy, expressed in plain words; and in order to ensure this we have copied nothing from other authors that we could verify for ourselves.

In order to give a history of the finest trees in this country, we have visited during the past five years nearly every important place in England, Scotland, Wales, and Ireland where large and rare trees are found; and have received from land-owners, estate agents, foresters, and gardeners an amount of information and assistance which justifies us in believing that our work will be generally appreciated. Though the historic trees of some places in England and of more in Scotland have been described in scattered publications, those of Ireland have been almost totally neglected; and Dr. Henry has paid special attention to the many interesting properties in that country.

A prominent feature of the work will be the illustrations. Modern photography enables the authors to give accurate pictures of the trees as they grow. Almost all the photographs of trees and of forest scenes have been taken by skilful photographers specially engaged for the purpose. In dealing with about 300 species of trees, many of which will require several illustrations to show the best specimens both as park and forest trees, the authors have accumulated a large number of photographs, which are being reproduced by the Autotype Company of London, who guarantee their permanency.

With regard to these illustrations we desire to say, that though in some cases they may not be perfect from the point of view of the photographic artist, yet the amount of time, skill, and money that has been spent on them is very far beyond what would be imagined by any one who has not had experience of the difficulty of securing good negatives of trees scattered over so large an area, under all conditions of light and weather, and in situations often extremely difficult to the photographer.

In some cases two or three special journeys have been made to obtain a photograph of one tree only, as the object has been to show the finest individual trees known to the authors rather than to make pretty pictures of scenery.

Besides these reproductions of photographs there will be lithographed drawings of seedlings, buds, leaves, flowers, and fruit, so far as is necessary to distinguish the trees in winter and in summer. These original drawings have all been done under the personal supervision of Dr. Henry, who has carefully studied the material, living and dead, that exists in the unrivalled establishment at Kew.

All measurements have been taken by the authors themselves with Stanley's Apomecometer, or by practical foresters on whose accuracy they could rely, and though in many cases errors to the extent of a few feet may have been made, owing to the shape or position of the tree measured, we believe them to be as accurate as possible under the conditions.