

Forest Trees of Somerset.

NO. II. THE ELM.

BY E. CHISHOLM BATTEN.

SOME years ago, an acute member of the Western Circuit, at a dinner of Somerset gentlemen, when the cloth was removed, asked "how many sorts of Elm there were? One of the party, not untaught in wood-craft, said, "Oh! two: the common sort, the Weed of the county, and the Wych Elm." "Two," replied the inchoate judge; "there are at least twenty-two."

If this post-prandial dialogue had taken place in a morning walk, a little discussion would have reduced the question to, how many species of Elm there are; and the question would next have followed, how many varieties of each species? and if these questions had been asked and answers had been looked for in botanical works, it would be found "*quot scriptores, tot sententiae.*"

As a general rule a tree of a genus belongs to a distinct species, when its seedlings have the same characteristics as itself.

"Varieties are variations in [members of a] species which variations are not in general of a permanent character and cannot be kept up in ordinary circumstances by seed."¹

Mr. Loudon says the Elm is remarkable for the aptitude of the different species to vary from seed; so much so that it is

¹ Professor Balfour's *Outlines of Botany*, p. 439.

difficult to say in this genus which are species and which are varieties; or even to what species the varieties belong.²

Mr. Loudon proceeds to give nine names of the timber-tree varieties of the common small-leaved English Elm, *Ulmus campestris*, Linn, of which varieties the White and Red English Elms are characterised by him as the best timber trees. The other elms he treats as species are (2) the Cork-barked Elm, *U. c. suberosa*, Mærch; 3, *U. c. major*, Smith, or the Dutch Cork-barked Elm; 4, the *Ulmus effusa*, Willdeknow, the Russian Elm; and 5, *Ulmus montana*, Bauh, the Scotch or Wych Elm, an undoubted species, of which he gives ten timber-tree varieties. He adds "we might have doubled the number of these varieties, and we should have felt justified in including among them the Cork-barked Elm, and perhaps some other kinds which we have treated as species; for there is, in truth, no certainty as to what are species and what varieties in Elms."

This state of matters is well brought out by the late Prof. Lindley in his *Synopsis of British Flora*, 3rd edition, 1859. He says (p. 227), "Nothing can be more imperfect than the state of our knowledge of either our domestic or foreign Elms. The whole genus requires to be very carefully studied by some one who can observe the species in different stages of growth, and also ascertain the quality of their timber. I have no doubt that all here enumerated are distinct, and it is probable that the Wormsley Grange or Byford Elm, the Hertfordshire Elm, and the Black Elm of Ireland, are other species to add to our Flora. Let it always be remembered however, that it is not from dried specimens that such a genus as this can be understood."

The first question to be discussed as to the genus Elm, is its origin.

It was a tree well known to the Greeks in the times of Homer and Hesiod under the name of *πτελέα*, which the

²Loudon's *Arb. Brit.*, 2nd ed., 1844, p. 1374.

eminent lexicographers, Liddell and Scott, translate *the elm tree* without any more specific title, but Dr. Donnegan, the medical lexicographer, translates it *the Elm tree, Ulmus campestris*. The ὄρει πτελέα of Theophrastus, (about three hundred years before the Christian era), the Oxford lexicographers translate *Lat. Ulmus montanus [sic], the Wych Elm*. Dr. Donnegan translates it, *the Mountain Elm, Ulmus montana*. The first knowledge we thus have of the Elm shows that there was in the earliest ages a tree known by this name, and one of the first lessons of the school of Aristotle was that there were two kinds of Elm; probably the small-leaved field Elm, *Ulm. camp.*, and the Mountain Elm, probably the Wych Elm, *Ulm. mont.*

The cultivation of Elms was an important work of Roman gardeners and husbandmen. Columella gives directions for its culture. It was the tree principally selected for supporting the vine, which was encouraged to trail up it to a great height; Of the Elm two kinds were known to Columella, the Italian and the Gallic, the latter also called *Atinia*, being according to Dr. Daubeny perhaps the Wych Elm of this country.³

Pliny the elder mentions four kinds in Italy, the *Atinia*, the Gallic Elm, the Italian Elm, and the Wild Elm, but he furnishes us with no sufficient characteristics to identify these names with existing species. He remarks of the Elm generally that it seldom bears seeds to any considerable extent.

The only evidence that any kind of Elm existed in the British Isles before the invasion of Cæsar is the statement of Dr. Boase that it is found in a submarine forest in Cornwall.⁴

Miller, no mean authority, speaking of the two species, common English Elm and the Wych-hazel or broad-leaved Elm, says, "Neither of them were originally natives of this country; but they have propagated themselves by seeds and suckers in such plenty as hardly to be rooted out."

³ Daubeny's *Roman Husbandry*, p. 168.

⁴ *Proc. Som. Arch. and Nat. Hist. Soc.*, vol. xxxvi, p. 176.

The Elm, whether the Field or the Mountain Elm, is not now generally speaking a tree growing naturally in thick woods, but we have the strongest proof that it grew in the North American forests in 1426 and before the discovery of America by Columbus (*infra* p. 118).

The opinions of British botanical writers on the subject of the indigenous character of Elms in Great Britain must be tested by reference to the part of the island where they write.

Sir William Hooker writing at Glasgow in 1830 speaks of the Wych Elm as indigenous in Scotland, but with the English Elm he confesses himself not to be well acquainted, and states that Professor Lindley appeared to have made the English Elm a particular object of his study; as to it Sir William merely quotes Professor Lindley. Mr. Brown, writing in Strathspey, states from Dr. Walker's *Essays*, that the English Elm was first planted in Scotland (Lord Morton's), at Dalmahoy, in 1736;⁵ it is not then surprising that it was in 1830 not a familiar object to Professor Hooker.

Dr. Hunter, the editor of *Evelyn's Sylva*, writing at York in 1776, seems very unfamiliar with the English or Field Elm, which we in Somerset and the South call the Weed of the Soil. Dr. Hunter thus speaks of this very common species of Elm: "This kind is commonly known in the nursery gardens by the title of English Elm, which is far from being a right appellation, for it is not a native of England, and is only found growing near London, or in plantations where the young trees were procured from the neighbourhood of London. Where this tree grows naturally, it is not easy to determine; some persons have supposed it was brought from Germany."⁶

Mr. Brown says, "The *U. campestris* is found very plentifully in France and Spain and is generally believed to be a native of England as well. That it is so is doubted by many however, from the fact that the tree very seldom ripens

⁵ Brown's *Forester*, 2nd edition.

⁶ *Evelyn's Sylva*, by Hunter, 1776.

its seeds in Britain, that occurring only in very favourable seasons. For my own part I have never seen it ripen its seeds in Scotland, which to me, at least, is an evident proof of its not being a true native of Britain, as many suppose. As the English Elm very seldom ripens its seeds in Britain, the tree is propagated by suckers from the roots of old trees, which are had in abundance.⁷

The planting of the English Elm at Dalmahoy in 1736, mentioned by Mr. Brown, is probably the first planting of this Elm in Scotland. Loudon mentions in his first edition, 1838, p. 1394, the years of planting of several English Elms in Scotland; none is earlier than 1736, but one was planted at Cortachy Castle in 1736, and two at Yester and Taymouth in 1738.

Grindon, writing in Manchester, says: "It is by no means certain that the common [Field] Elm is truly indigenous. Central and Southern and Eastern Europe, and Western Asia, are its aboriginal localities, and although apparently wild in England, it is probably only from long residence. A good test of a plant being really indigenous to a given country is its ability to multiply itself there naturally from seed, or without the assistance of man. This power is possessed by the *Ulmus campestris* only in a very slight degree, and hence in connection with other circumstances, a foreign origin is reasonably supposed."⁸

These botanists tell us that the English Elm was probably introduced by the Romans because the English Elm rarely produces seed; but Mr. Grindon's test of a tree being aboriginal in a country where it can multiply itself naturally from seed or without the assistance of man would, according to Pliny's account of the Elm genus, be evidence as much against its being a native of Italy as against its being a native of England.

⁷ Forester, 3rd ed., p. 173.

⁸ Grindon's *British and Garden Botany*, 1864, p. 309.

In Somerset the common English Elm can be propagated by seed; it seems hardly possible that this tree of spontaneous growth should be only maintained here by suckers. The Wych Elm is profuse in its production of seeds: a distinguishing peculiarity of it is that it does not send out suckers; whilst the English Elm produces them most freely.

Miller's use of the name Wych Hazel as equal to the broad-leaved Elm explains the language of the Statute of Edw. IV,⁹ which required every Englishman dwelling in Ireland to have an English bow of his own height made of Yew, Wych Hazel, Ash, or Awburn.

Leland, 1540—1542, speaks of the Elm wood he saw in Somersetshire:—

“Wells to Bruton.

“From Wellys by South to Doulingcote Bridge of Stone, under the whiche Coscumbe Water rennith about a Mile al by very ille rokky way.

“Thens I passid about a Mile more by lyke Ground, and this far I saw sum store of Elme wood.”¹⁰

“South Cadbury to Ilchester.

“Al this way the Pastures and Feeldes be much enclosid with Hedge Rowes of Elmes.”¹¹

“Crewkerne to Bridgwater.

“Frome Crokehorn by Hilly Ground but plentiful of Corne, Grasse and Elme Wood, wherwith most part of al Somersetshire ys yn hegge rowys enclosid, scant a 2. Miles to George Henton Village.”¹²

All this Elm was the Field Elm and not the Wych Elm.

The strata from Wells to Bruton are first the New Red Sandstone, next the Lias, and lastly the Oolite. The strata from South Cadbury to Ilchester are entirely the Lias. The

⁹ Fifth Edward IV.

¹⁰ *Proc. Som. Arch. and Nat. Hist. Soc.*, vol. xxxiii, pt. ii, p. 76.

¹¹ *Ib.*, p. 84.

¹² *Ib.*, p. 89.

strata from Crewkerne to Bridgwater are first the Oolite Sands, next the Lias for a short distance, then it is the Alluvial Soil to Bridgwater of the valley of the Parrett.

Mr. Billingsley¹³ mentions the valleys and the flat lands all over the county as abounding in Elm, but he distinguishes between the practice of lopping the Elm in his north-eastern, district, which is the portion of the county to the north-east of the Mendip range, and the absence of this mutilation in his time (1794), in his south-western division—that is west of a line from Chard to Bridgwater.

As to his north-eastern district he says (p. 127) “the villages are in general richly laden with Elm, which grows spontaneously in the hedge rows, and gets to a good size. The method practised here of lopping off the side branches to what is called a besom-head cannot be too much execrated. It is destructive to the growth of timber, and by lessening the agitation produced by winds, deprives it of what may be termed its salutary exercise. The effect of cutting off the lower branches is a premature decay, which first takes place in the top of the tree, a general check is given to the circulation of the sap, and it reduces the tree nearly to the state of a pollard.” As to the south-western district he says (p. 285), “This division does not abound with *Oak*; but *Elm* grows in hedges, and if their heads are not unfairly lopt get to a size sufficiently large for the keels of ships of war. For the most part they grow from the inchors [*sic*] or suckers of the neighbouring trees; probably some from seed. Few are planted from nurseries, nor is there often any occasion for it, Elm being the spontaneous production of the country. The heads or side branches are seldom mutilated, it being understood that the stem swells in proportion to the sap that is drawn from the root to the head.”¹⁴

The common English Elm is very superior to the Elm often

¹³ *Survey of Somerset*, 2nd ed., 1798.

¹⁴ Billingsley.

substituted for it, and of which one often finds ancient examples in parks. This is the Dutch Elm, said by Loudon to be only a variety of the English Elm; the two however are most distinct in habit and general appearance. The English Elm is as a rule clean barked, even when old, tall and spreading; whereas the Dutch Elm is of much stiffer outline, has a corky bark and gnarled trunk, and is shorter lived.¹⁵ The Dutch Elm is the variety most addicted to casting its limbs in the sudden manner which is noted hereafter.

Sir W. Hooker, after the passage to which I have referred (p. 109), names on Mr. Lindley's authority several kinds of Elm, amongst which are the Hertfordshire Elm, the Downton Elm, and Scampston Elm, and Cornish Elm, as varieties of the Field Elm; and the Giant Elm and Chichester Elm, as varieties of the Wych Elm.

Professor Lindley adds in his editions of 1841 and 1859, "the Scampston Elm especially requires further examination;" and as to the Cornish Elm, he distinguishes between the *U. c. stricta* and *U. c. parvifolia*, which he calls sub-varieties, of which the *U. c. stricta* is frequent in Cornwall and North Devon.

The more diligent study of this species recommended by Professor Lindley might lead to more accurate knowledge.

Loudon puts as the first *variety* of narrow-leaved or Field Elm, *U. c. vulgaris*, and describes it as "very twiggy; pale smooth bark; of irregular growth in some plants, with almost horizontal branches, where no others are near to force the shoots upwards. In some soils, it is very subject to decay at the joints. The bark is leaden-coloured while young, splitting into long thin strips with age. A bad variety to cultivate for timber" (p. 1375).

There is undoubtedly a tendency in the finest specimens of Field Elms to lose their branches. Suddenly, without any

¹⁵ *Woods and Forests*, p. 284.

warning, no tempest giving the shock, huge limbs break off from the trunk without the breath of a gale. Some notice of the circumstances under which these accidents have happened in this county might be a valuable guide to the planter, to avoid cultivating those species of the Field Elm which are liable to this infirmity. Catastrophes, as some of our readers must know, have been providentially averted by the moving of persons from the shade of a branch just before its incidence. The true remedy is, in situations where there would be great damage to persons standing or sitting under the tree, to plant such a variety of the Field Elm as the Cornish Elm, which is very tough and does not lose its branches by wind or decay at the junction with the trunk, or as to existing trees to prune or shorten boldly the branches which spread too far and may fall by their own weight.

In the old town of Eastbourne some splendid Elms grow within a hundred feet of the sea, and in the new streets and esplanades recently made there the Cornish Elm is the tree selected to form the avenues and shade trees of that watering place; it is said that the manner in which they are growing fully justifies the choice.

The Cornish Elm grows well in Somersetshire, but has not, as far as I can learn, been propagated by seed. It is probably the same as the Red Elm, the term *U. c. stricta* being applied to both the Red and Cornish Elm.

The Cork-barked Elm is a very marked variety of the Field Elm, but it appears to be only propagated by layers or suckers, and not by seed. Loudon reports trees of this variety at Melbury Park, Dorsetshire, 30 years planted, 50 feet high.

The Dutch Cork-barked Elm, or *U. c. major*, is another variety of the English or Field Elm. It appears to be the kind brought over by William III from Holland; often its wood has been found inferior to that of most other kinds of Elm. The Elm trees in the old part of Kensington Gardens

near the Palace are of this kind, and a number which have been blown down are found to be rotten inside.

There is an Elm called the Black Irish Elm, which, as it ripens its seeds in Ireland, is probably a variety of the Wych Elm. The Weeping Elm (*Ulmus pendula*) is a variety of the Wych Elm. It ripens its seeds and has the larger leaf of that species, and grows very well in this county.

The Field Elm sends its roots for a considerable distance from the trunk, but at no great depth, not more than about two feet. It requires therefore a good soil for its successful growth, and if planted in an arable field it is very injurious to corn crops. As a hedge-row tree it is the least hurtful of timber trees if planted on a bank, and if pruned up to even twenty feet.

The English Elm much surpasses the Scotch or Wych Elm in the height which it attains. The Wych Elm (*U. m. vulgaris*) is a spreading tree, seldom exceeding forty or fifty feet in height, except when drawn up by other trees.¹⁶ No Wych Elm attains the height of one hundred feet, a not uncommon height for an English Elm.

The timber of the Scotch Elm is stated by Mr. Brown¹⁷ to be inferior to that of the English Elm. It is certainly so estimated by timber merchants in the county of Somerset.

The English Elm timber has some valuable qualities, especially its best is that it will not splinter; on this account it was employed for the gunwales of ships of war, and is useful for the keels of any ships, as it does not split longitudinally when the ship strikes the bottom; it is the only proper division of stalls in cart-horse stables, and for gun carriages, and any other position where splinters are dangerous.

The particulars of the Field Elms which are noted by Loudon as growing in this county are given in the previous

¹⁶ Loudon's *Arb. Brit.*, ed. 1838, p. 1398.

¹⁷ Brown's *Forester*, 3rd ed., p. 177.

paper¹⁸ as flourishing at Leigh Court and Nettlecombe; at Trent, Alford House, and the Deer Park at Dunster Castle.

There are fine Cornish Elms at Bathealton Court (Mr. Moysey's): height 92 feet; girth at 5 feet from ground 9 feet 5 inches, the spread only 30 feet. A Field Elm at the same place in a field called Smith's Close, near the road from Wiveliscombe to Milverton, is 111 feet high, girth 17 feet 10 inches, spread 76 feet. The soil is New Red Sandstone on edge of Devonian, about two miles from Devon.

A Field Elm which is worth recording should not be less than 100 feet high. At Henlade (Mr. Murray-Anderdon's), one hundred yards from Thorne station: height 112 feet, girth 19 feet 6 inches, spread 91 feet. This is on flat ground; but close to Mattock's Tree Hill, on much higher ground, a mile off from the Henlade tree, an Elm is 101 feet high, and 21 feet girth; its spread however is small. There is an avenue of Elms, called the Apostles, in North Curry Churchyard, but they owe their reputation to standing in a row—none of them are more than 14 feet in girth. At Henlade is a Wych Elm probably a century old, and passing its prime. It is on a slope, just where the Lias is denuded over the Red Sandstone. Its height is 94 feet, its girth at 5 feet from the ground 17 feet, and its spread 70 feet. In Coker Court Park (Mr. Helyar's), an Elm is 110 feet in height, and about 10 feet in girth.

There is an Elm at North Perrott called "The Cross Tree," from being close to the remains of an old cross in the centre of the village. It affords a valuable instance of the age of an old English Elm, ascertained by oral evidence and confirmed by the annular rings. Mr. Hoskins of North Perrott Manor has kindly collected the oral evidence which proves that the tree was, when planted, held by a *boy*, born in 1736; it would be planted therefore about 1750. Some eight or nine years ago, upon Mr. Hoskins cutting off a very large limb (the first

¹⁸ *Proc. Som. Arch. and Nat. Hist. Soc.*, vol. xxxvi.

from the ground) which threatened a neighbouring cottage, its rings were counted and pronounced by an expert to establish the Elm's age as about 130 years. This tree's girth is 16 ft. 4 in.

Dr. Norris informs me that there are four English Elms at South Petherton, in a row by the Vicarage path, whose respective heights and girths are—I, 104 ft. by 16 ft. 8 in. ; II, 104 ft. by 12 ft. 6 in. ; III, 101 ft. by 14 ft. 3 in. ; IV, over 100 ft. by 18 ft. 9 in. The ground on which they stand was conveyed to the Vicars for ever in 1738, and the planting of the trees would probably be in the next decade.

In August, 1662,¹⁹ Sir William Penn and the other Commissioners of the Navy were in great anxiety about Oak timber for supplying the wooden walls of England from the Royal Forests,²⁰ when the then Royal Navy should be worn out and impaired.

The enthusiasm of the nation was then exultant over the King's Restoration; whilst his popularity had proved the destruction of the Royal Oak of Boscobel, of which Evelyn said—"The Oak had ceased to be a living tree in 1662." But that very year persecution had begun against the Nonconformists, encouraged by a King whom promises could not bind, nor gratitude soften.

Whilst the Royal Oak was becoming extinct, like the affection of his people for the Royal Refugee, an Elm was standing, as it had stood for a century and a half, where

Westward the course of empire takes its way.²¹

This Elm flourished on the spot where, twenty years after, William Penn made that famous treaty with the Indians, the only treaty, it was said, which was made without an oath, and the only one that was never broken.

This Elm tree was long regarded by the Pennsylvanians with

¹⁹ Pepys' *Diary*, 14th August, 1662, Forest of Dean; 18th August, 1662, Waltham Forest.

²⁰ This led to the publication of Evelyn's *Sylva*, a discourse first read to the Royal Society, 15th October, 1662.

²¹ Bishop Berkeley's verses, 1725.

universal veneration, and was respected by General Simcoe, who, during the War of Independence, commanded a British Force at Kensington, now a suburb of Philadelphia. When his soldiers were cutting down all the trees around them for fuel, the General placed a sentinel under Penn's Elm, to guard it from injury. In 1810 this tree was blown down, when on counting the annular rings it proved to be 283 years of age.²²

It was probably from admiration for Penn's Elm, that when the fashion begun, on the breaking out of troubles between the Colonists and England, of dedicating Trees of Liberty, the Colonists selected fine large Elms for such dedication. And apart from this somewhat fantastic devotion, there is paid to several very old Elm trees in New England, a reverence on account of their age and history. This has inspired some verses on the Great Elm in Pittsfield, Massachusetts, which appeared in *The Berkshire Whig*, the last lines of which well express the popular feeling :—

Hail to the Elm, the brave old Elm,
Our last lone forest tree :
And long may he wear, that his kindly care
O'er our children's children be.²³

“Nobody knows New England,” says an American writer, “who is not on terms of intimacy with one of its Elms. It is modest and patient. It has a small flake of seed which flows in every where, and makes arrangements for coming up by and by. So in spring one finds a crop of baby Elms among his carrots and parsnips, very weak and small, compared with those succulent vegetables. One Baby Elm succeeds. Let your great grandson look for it. Twenty-two feet of clean girth, 360 feet in the line that bounds its leafy circle, it covers the boy with such a canopy as neither glossy-leaved Oak, nor insect-haunted Linden ever lifted into the summer skies.”²⁴

²² Browne's *Trees of America*, p. 506.

²³ *Ib.*, p. 504.

²⁴ *Elsie Venner, in Woods and Forests*, p. 450.