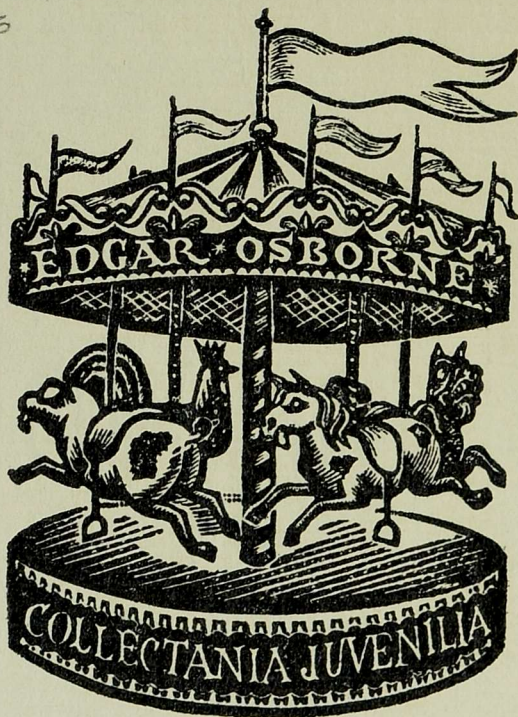




NS. (N.Y.)
WOODLAND...

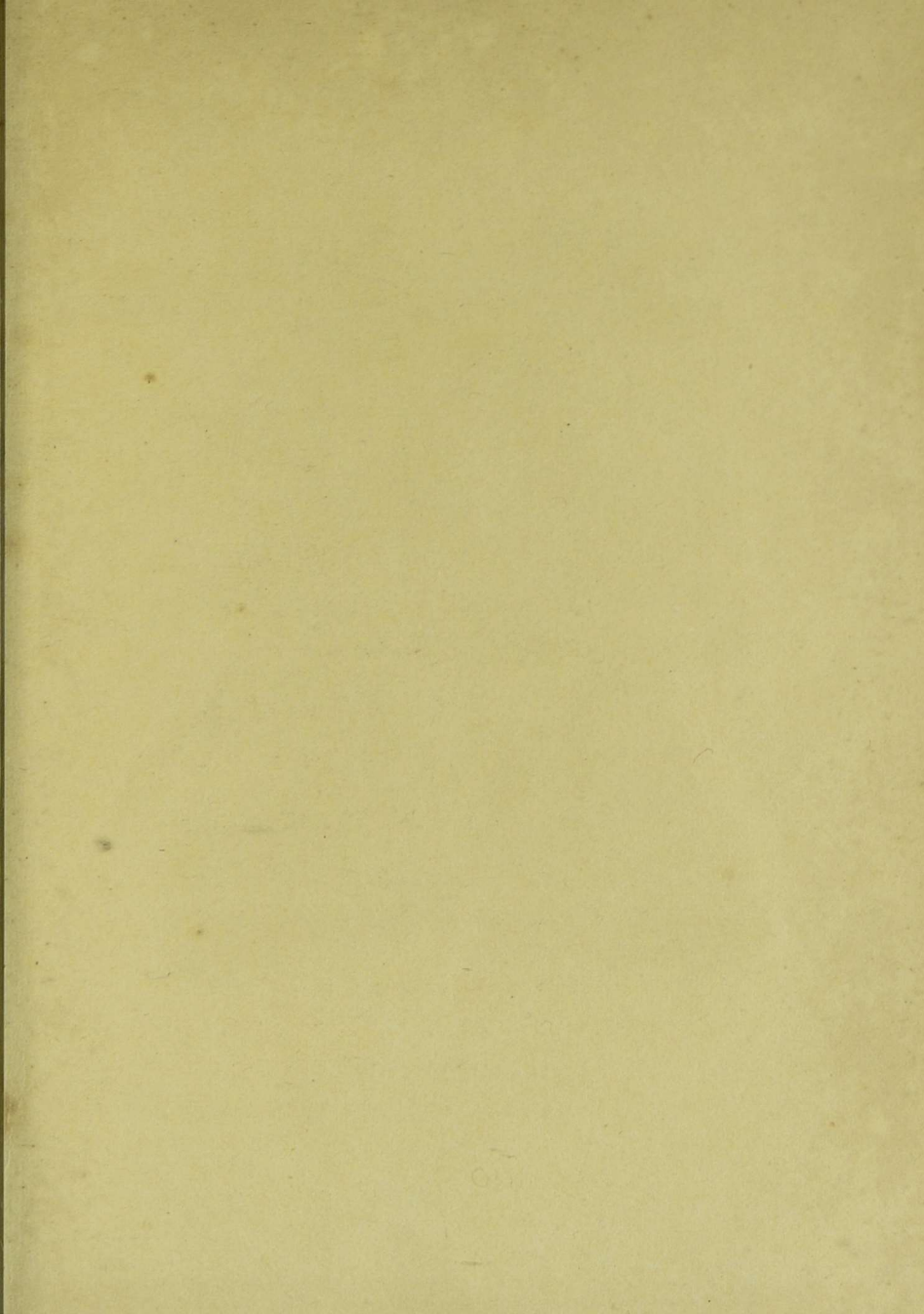
1846



37131 009 567 256

Sarah Jackson
with
Grandma's Love

Reading
July 1867





ASH.

[Frontispiece.]

WOODLAND RAMBLES.

UNCLE BEN'S CONVERSATIONS WITH HIS
NEPHEWS

ON

THE BEAUTY AND UTILITY

OF

ENGLISH TIMBER TREES.

Illustrated with Forty Engravings.

“ _____ What he finds of beautiful or grand
In Nature, from the broad majestic oak
To the green blade that twinkles in the sun,
Prompts with remembrance of a present God.”

COWPER.

LONDON :

ADAM SCOTT, 39, CHARTERHOUSE SQUARE.

1846

LONDON :

PRINTED BY A. SWEETING 15 BARTLETT'S BUILDINGS

TO

HIS LITTLE BROTHERS,

HUBERT AND HOWARD,

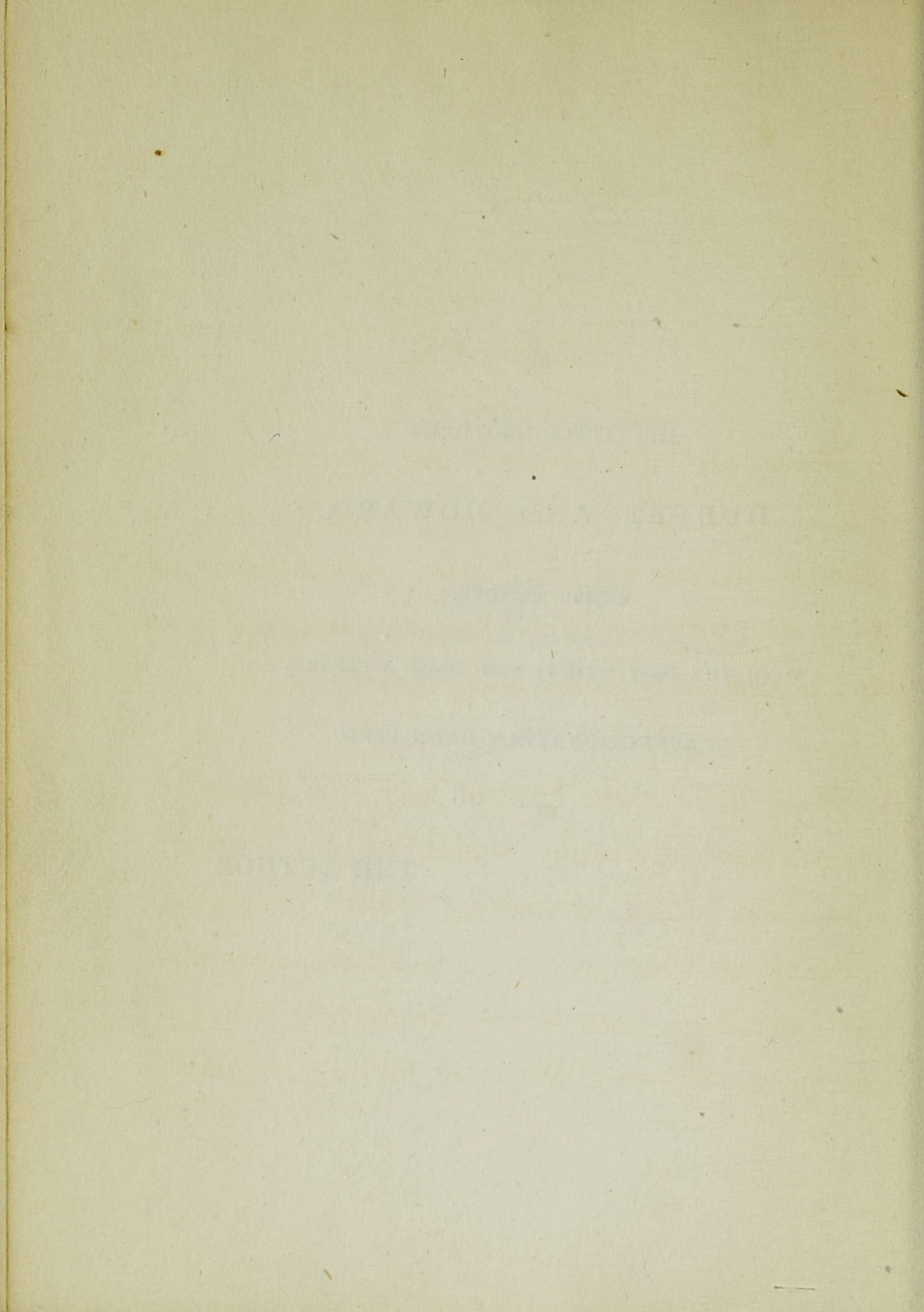
This Work,

WITH THE BEST WISHES FOR THEIR WELFARE,

IS AFFECTIONATELY DEDICATED

BY

THE AUTHOR.



PREFACE.

TREES, the most beautiful and interesting, perhaps, of all the productions of nature, are, by children in general, but little understood: that is to say, with regard to their uses and appliances to the every-day scenes and necessities of life.

Many little works have of late been published, on various interesting topics, in the shape of dialogues; which, containing lessons instructive, pleasing, and comprehensive to almost the youngest mind, have been of the utmost utility in promoting a wholesome system of juvenile education.

Impressed with these ideas, I have spent some leisure hours in gathering together, and compressing, the subject-matter of the following pages, for the use of the younger portion of our population; and should it have the effect of giving them a better knowledge of this division of Natural History, and of the obligations they are under to that Being who hath said, "all the trees of the Forest are mine," my end will be fully accomplished.

AL: AL:

CONTENTS.

	PAGE
THE OAK	1
THE ELM	20
THE CHESNUT	28
THE BEECH	40
THE HAZEL	46
THE ASH	49
THE MOUNTAIN ASH	56
THE BIRCH	58
THE MAPLE	62
THE HOLLY	74
THE LIME	81
THE WALNUT	90
HICKERY	96
THE MULBERRY	97
THE POPLAR	105
THE ASPEN	109
THE OSIER	110

	PAGE
THE WILLOW	111
THE FIR	115
THE PINE	123
THE LARCH	128
THE CEDAR	133
THE HORSE-CHESNUT	148
THE YEWE	154
THE ALDER	159
THE HAWTHORN	164
THE WHITE-BEAM	167
THE BOX	171
THE PLANE	175
THE SERVICE-TREE	177
THE EVERGREEN CYPRESS	178
THE ELDER	182
THE CRAB	186
THE APPLE	186
THE PEAR	187
THE PLUM	188
THE CHERRY	189
CONCLUSION	191

WOODLAND RAMBLES.

RAMBLE FIRST.

UNCLE BEN MEETS HIS NEPHEWS, AND PROPOSES TO RELATE TO THEM THE DIFFERENT KINDS AND USES OF BRITISH TREES. HE COMMENCES WITH AN ACCOUNT OF THE OAK AND THE ELM.

“WELL met, boys; you have often asked me to give you some account of the different English timber trees, and I think that as we ramble over the lanes and fields, we will speak of each tree as it comes to view, with regard to its utility, its appearance, and the age it attains: What say you?”

“It will be the very thing we have long wished for,” said Thomas.

“What say Frank and Harry?”

“Oh, yes; we should like it very much indeed : will you please begin this evening, Uncle Ben?”

“I am glad you take an interest in gaining information; it will always give me great pleasure to tell you anything which I know; and, as you seem to wish it, I will commence, during this, our first ramble, with some account of the oak—
‘the brave old oak.’

‘From a small acorn see the oak arise,
Supremely tall and towering in the skies !
King of the groves, his stately head he rears,
His bulk increasing with increasing years !
Now moves in pomp majestic o’er the deep,
A ship, in which Britannia’s thunders sleep ;
With fame and conquest graces Albion’s shore,
And guards the island, where he grew before.’

“It has long been called the ‘Monarch of the Woods,’ and highly does it deserve the title; for, when felled at the proper age, (from fifty to seventy years), it is really the best timber that is





OAK.

[2—3]

known. Some wood is harder, some less easily broken across, and some more difficult to rend; but yet, none combines these qualities in so great and equal proportions; and, thence, for bearing a weight, resisting a strain, and not shattering by the blow of cannon shot, the timber of the oak is superior to every other. But, see, we are come to a fine specimen, under whose branches we will rest ourselves, while we speak of its value."

"We must not walk too fast for you, Uncle," said Frank, "or we shall soon tire you."

"You will, indeed, for your legs are younger than mine, and you can, therefore, trot along better."

"Indeed, Uncle Ben," said Thomas, "the oak must be a very useful tree, but does it not grow to be much older than the age you mentioned?"

"Yes, it has been found in the district of the New Forest, with three or four hundred rings, or layers of wood, forming the trunk, each of

which marks one year's growth ; therefore, they must have been three or four hundred years old."

" Many places in England take their names from this tree, as *Oakingham*, *Oakhampton*, *Oakington*, *Aukland*, *Baldock*, *Hatfield-Broad-oak*, *Greenock* in Scotland, *Seven-Oaks*, &c. &c.

" At Fairlop, in Essex, grew an oak, of which the trunk measured thirty-six feet round ; the circumference of the boughs, at their extent, was three hundred feet. It was a custom for the block-makers of Wapping to hold an annual meeting under its shade, on the first Friday in July, which festival was founded by Daniel Day, a blockmaker of that place, who always dined under it on that day, with a select party of friends. The visitants proceeded there in boats, placed on carriages, and ornamented with flags. But this annual festival collected so much idle rabble, that the oak was cut down, and the pulpit and reading-

desk of St. Pancras Church, London, were made from its timber.

“The oaks of Chaucer are celebrated in the annals of poetry, as the trees under which

‘The laughing sage
Caroll’d his moral song.’

“They grew in the Park, at Donnington Castle, near Newbury, where Chaucer spent his life in studious retirement. The largest of these three trees was called the ‘King’s Oak,’ and carried an erect stem of fifty feet, before it broke into branches, and was cut into a beam five feet square. The next in size was called the ‘Queen’s Oak,’ and survived the calamities of the civil wars in King Charles the First’s time, though Donnington Castle, and the country round it, were frequently the scenes of action and desolation. Its branches were very curious; they pushed out from the stem in several uncommon directions, more like the

horns of a beast, than the branches of a tree. When felled, it yielded a beam forty feet long, without knot or blemish of any kind, perfectly straight, four feet square at the foot, and nearly a yard at the top. The third of these oaks was called 'Chaucer's,' of which we have no particulars, except that it was a noble tree, though far inferior to either of the others."

"I read in the History of England," said Thomas, "that King Charles the Second was hidden in an oak tree, when Oliver Cromwell's men were pursuing him, after the battle of Worcester."

"He was," said Uncle Ben, "at Boscobel House in Staffordshire; but, though several trees were raised from the acorns of this oak, the race is now entirely extinct. It was standing, however, in the year 1787, when an old wall, which was in a very ruinous state, was rebuilt of brick, and an inscrip-

tion, in Latin, was engraved on a plate of brass, the translation of which is as follows:—

‘SACRED TO JUPITER IS THE OAK.
THIS MOST GLORIOUS TREE, WHICH,
FOR THE ASYLUM OF THE
MOST POWERFUL KING CHARLES II.
GOD THE GREATEST AND THE BEST,
HERE CAUSED TO FLOURISH,
BASIL AND JANE
FITZHERBERT
HAVE SURROUNDED WITH A WALL,
THAT IT MAY BE
SECURED TO POSTERITY,
AS A PERPETUAL MEMORIAL
OF SO GREAT A KING,
AND A PROOF OF THEIR
FIDELITY TOWARDS MONARCHS:
WHICH MONUMENT OF PIETY,
NOW DECAYED THROUGH AGE,
IS REBUILT BY
BASIL AND ELIZABETH
FITZHERBERT,
THE HEIRS OF PARENTAL VIRTUE,
AND THE EMULATORS OF
THEIR ANCESTORS IN
THEIR FIDELITY
TOWARDS PRINCES.
4TH JUNE, 1787.’

“The story is very interesting, of the manner in which King Charles was secured from his pursuers. I will give it you in the words of an eminent historian.

“ ‘The floor of the garret (which was a Popish chapel,) being matted, prevented any suspicion of a little cavity, with a trap-door over the staircase, where the king was hidden. His bed was artfully placed behind some wainscot, that shut up very close. At the distance of a bow-shot, just by a horse-track, passing through the wood, stood the oak, into which the king and his companion, Captain Careless, climbed by means of a hen-roost ladder, when they judged it no longer safe to stay in the house, the family handing them up food with a nut-hook, during their continuance in that situation.

“ ‘It happened that whilst the king and the colonel were in the tree, a party of the enemy’s

cavalry, sent to search the house, came whistling and talking along the road. When they were just under the oak, an owl flew out of a neighbouring tree, and hovered along the ground, as if her wings were broken ; the soldiers pursued it, and, without making any closer observation, passed on.”

“How very near he was being caught !” said Frank.

“He was, indeed, for it is probable that the accidental circumstance of the owl flying out, saved his life. Some time afterwards, when travelling in that part of the country, he procured some of the acorns, and had them planted in St. James’s Park.

“An oak of still more venerable pretensions, now stands, or lately stood, at Torwood Wood, in Stirlingshire, Scotland, under the shadow of which, the famous Scottish patriot, William Wallace, is reported to have convened his followers; it is

twenty-two feet in circumference. I cannot tell you its exact age, but it must be very old, as there are vestiges of the ancient Druids round it. There is another Wallace Oak at Elderslie, near the place where Wallace was born. It is a very noble tree, twenty-one feet in circumference at the ground ; and thirteen feet two inches, at five feet from the ground. It is sixty-seven feet high, and its branches extend forty-five feet east, thirty-six west, thirty south, and twenty-five north, covering altogether nineteen English poles of ground. Wallace, and three hundred of his men, hid themselves from the English among the branches of this tree, which was then in full leaf. I have seen a remarkably fine oak near Studley, in Worcestershire, which, at five feet from the ground, is twenty feet in girth, and has a perfectly straight trunk, till it reaches the height of fifty feet, when it divides into several branches.

“We will now proceed on our ramble; after this rest I shall get on better. Shall I go on with some more tales of remarkable oaks?”

“If you please, Uncle Ben,” said Thomas, “nothing *can* be more amusing.”

“An oak,” continued Uncle Ben, “felled at Withy Park, Shropshire, in 1697, was nine feet in diameter, without the bark; there were twenty-eight tons of timber in the body alone, and the spread of the top, from bough to bough, was one hundred and forty-four feet. The Boddington Oak, in the Vale of Gloucester, was fifty-four feet in circumference at the base; the larger arms and branches were gone in 1783, and the hollow cavity was sixteen feet in its largest diameter, with the top formed into a complete dome, while the young twigs on the decayed top had small leaves about the size of those of the hawthorn, and an abundant crop of acorns. The hollow had a door, and one

window, and little labour might have converted the tree into a commodious, and rather a spacious room. There was another oak at Norbury, which was of the enormous circumference of forty-five feet, and when it was felled, and lying flat upon the ground, two horsemen, one on each side of the trunk, were concealed from each other.

“Gog and Magog, in Yardley Forest. Gog the largest of these two oaks, is thirty-eight feet round at the roots, and twenty-eight feet at three feet from the ground. It is fifty-eight feet in height, and contains one thousand six hundred and sixty-eight feet seven inches of solid timber. Magog is only forty-nine feet high; but his circumference is fifty-four feet four inches at the ground, and thirty-one feet three inches at three feet higher up. These two trees grow near each other; and although a good deal bared at the top by age, they are very picturesque.

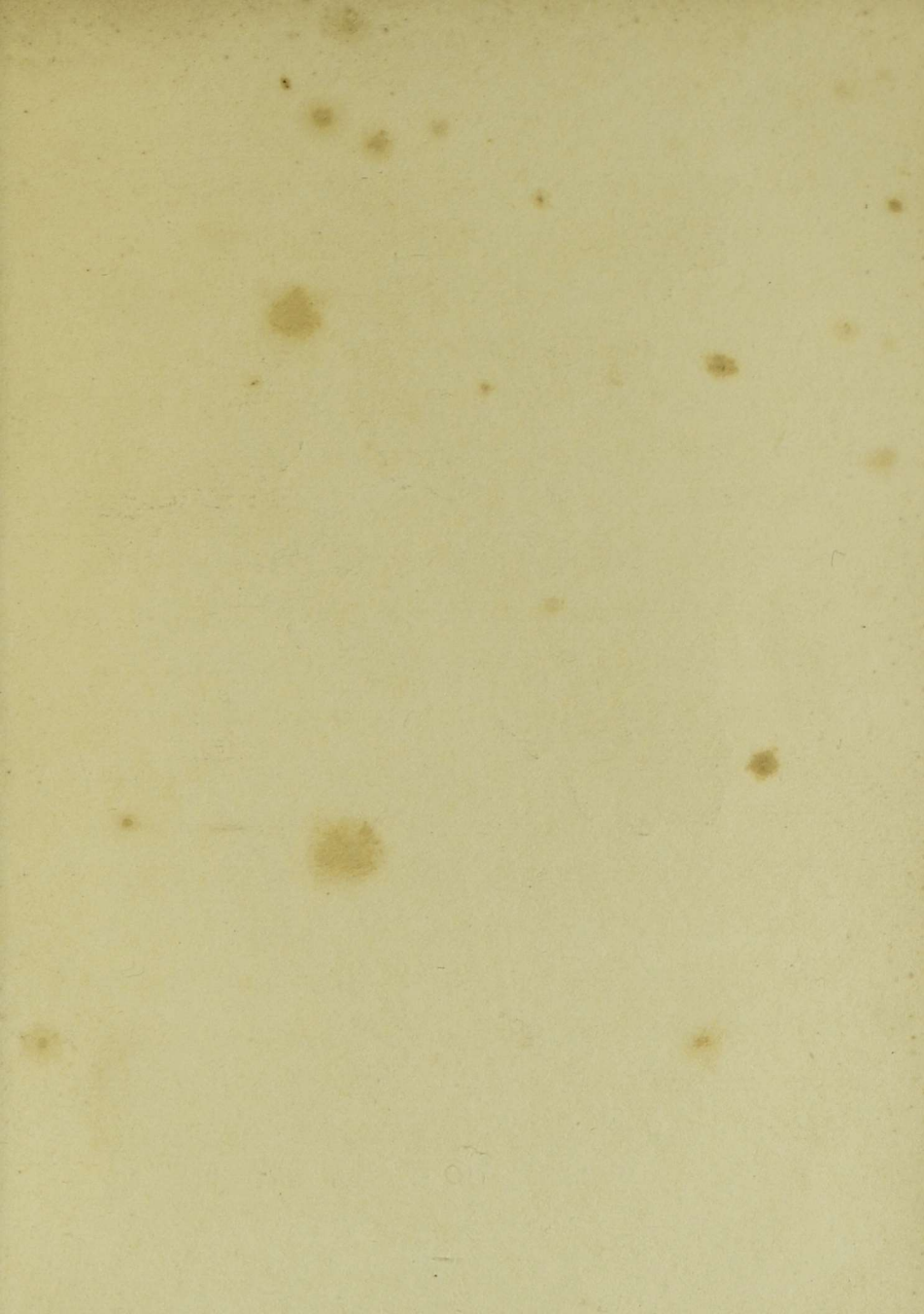
“The Bull Oak, in Wedgenock Park, Warwickshire, measured, in September, 1783, at one yard from the ground, thirty-four feet; at one foot from the ground, forty feet; and, at six feet from the ground, thirty-seven feet in circumference. Height of the trunk, about thirteen feet. The inside was quite decayed; and a cow and a sheep had taken shelter in it at the time it was measured.

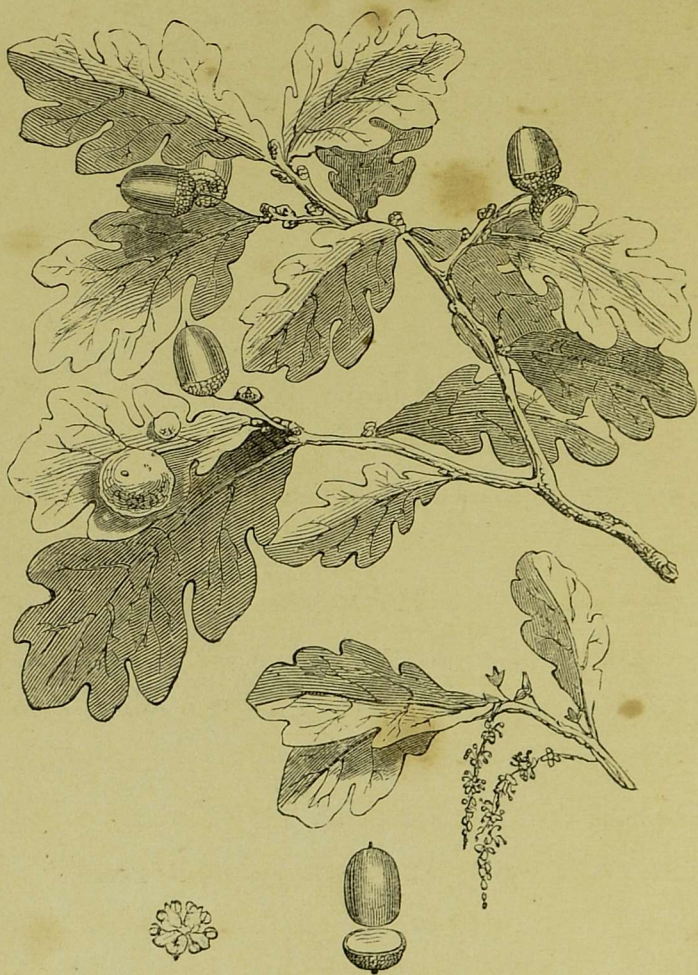
“The Beggar’s Oak, at Bagot’s Park, four miles from Blithfield, near Lichfield, in Staffordshire, is twenty feet in girth, at five feet from the ground. The roots rise above the ground in a very extraordinary manner, so as to furnish a natural seat for the beggars chancing to pass along the path-way near it; and the circumference taken around there is sixty-eight feet. The branches extend forty-eight feet from the trunk in every direction. It contains eight hundred and seventy-seven cubic feet of timber, which, includ-

ing the bark, would have produced, according to a price offered for it in 1812, the sum of £202 14s. 9d. This tree is quite fresh, vigorous, and beautiful.

“ The timber of the oak is not applied to very many purposes, though, where it is employed, it answers the purpose better than any other timber. Its principal use, as I told you before, is in ship-building, though not so much as formerly; larch-wood is cheaper, and has, on that account, been introduced for that purpose. It has latterly fallen into disuse in the building of churches and houses, although stair-cases, and some kinds of furniture, are still made from it. The root is formed into a variety of little articles, such as tea-caddies, snuff-boxes, &c.

“ The saw-dust is an ingredient in many brown and drab-coloured dyes. The oak-apples also are used in dyeing, as a substitute for galls. The bark of the oak is of the greatest service in tanning,





OAK. Leaves, Flowers, and Apple; Acorns.

the bark of no other tree being equal to it for preserving the leather ; when its tanning property is extracted, it is used by gardeners for forcing early plants, &c. Pigs are fattened on acorns, their flesh being much improved by eating them.

“ With respect to its appearance as a forest tree, it is acknowledged to be the most picturesque of all. It conveys to the mind associations of strength and duration, which are very impressive. The oak stands firmly against the blast, and does not take, like all other trees, a twisted form from the action of the winds. Except the cedar of Lebanon, no tree is so remarkable for the stoutness of its limbs ; they do not exactly spring from the trunk, but divide from it ; and, thus, it is sometimes difficult to know which is stem and which is branch. The twisted branches of the oak, too, add greatly to its beauty ; and the horizontal direction of its boughs, spreading over a large surface, completes the idea

of its sovereignty over all the trees of the forest.
Even a decayed oak,—

‘ dry and dead,
Still clad with reliques of its trophies old,
Lifting to heaven its aged, hoary head,
Whose foot on earth hath got but feeble hold ’—

is strikingly beautiful and majestic.”

“ Oh, look, Uncle Ben,” said Harry, “ I declare there is a squirrel in yonder oak, eating an acorn !”

“ So there is; they are exceedingly fond of them, and, though, perhaps, you may be surprised at it, we owe many very fine oaks to these beautiful little animals.”

“ Indeed, Uncle !” said Frank. “ While we stand looking at him taking his meal, pray tell us how it is possible for squirrels to plant such large trees.”

“ I suppose you are aware,” said his Uncle,

“that the little fellows lay up a large store of acorns and nuts in the autumn for winter food. When the acorns are very plentiful, and they have more than they can conveniently carry to their nests, they dig holes under the trees, bury the acorns, and probably forget them, or have not occasion for using them through the winter. The oaks which spring from these, or, as they are erroneously called, *self-sown oaks*, are always the finest, because the squirrel has an instinct that directs him to the best and soundest acorns.”

“Can you reach to hook down one of those little reddish-brown balls off this oak, with your stick, Uncle Ben?” said Frank.

“I will try;—there is one: they are called oak-apples, and very likely you have seen them carried about by the common people in their coats, on the 29th of May, the anniversary of King Charles the Second’s Restoration.

“The mistletoe, which is hung up in farmhouses at Christmas, grows on the oak, as well as on other trees ; it bears little white berries, which are not eatable, but which have a very pretty appearance in the depth of winter. It was venerated by the Druids.”

“In former days, acorns were occasionally an important article of food. Indeed, in the south of France, acorns are now eaten in times of scarcity; and, being roasted, ground, and made into bread, form a very wholesome food ; they may also be used as coffee, and in this form are said to have the effect of strengthening the nerves. The fresh fruit has an agreeable taste, and may be eaten like nuts or chesnuts. But, remember, boys, the warm soil and climate considerably improve them, the English species being very unwholesome.

“And, now, boys, I will close my remarks on the oak, by saying, that it is naturally ‘the

Englishman's Tree,' for, in no country does it grow in every respect equal in quality to the British. It is, indeed, the sovereign of trees, and numberless poems have been written upon it, of which, perhaps, one of the most beautiful is this :—

'Imperial oak, a cottage in thy shade
Finds safety, as a monarch in thy arms
Respectful generations see thee spread,
Careless of centuries, even in decay
Majestic ; thy far-shadowing boughs contend
With time ; the obsequious winds shall visit thee
To scatter round the children of thy age,
And eternize thy latest benefits.' "

"Thank you, Uncle," said Thomas, "we are very much obliged to you, indeed ; you have told us a great deal more about the oak, and oak trees, than we ever heard before."

"I am glad to find that you are pleased. We shall have time to hear of another tree this evening ; and, see, yonder is an elm, what say you to that ?"

“Yes, Uncle,” said Harry; “the cooper brought some casks home to-day, and I heard him tell mama they were made of elm.”

“A coarse kind of elm,” said Uncle Ben, “is generally used for water-butts, casks, coffins, wooden presses, &c. This coarse kind grows in the fertile parts of England, and is known as the *common elm*, of which the one before us is a specimen. But there is a much finer species, closer in the grain, harder, and more handsome when polished, which grows in the bleak and mountainous districts of Scotland, which is called the *mountain elm*. The latter is much used for kitchen chairs, tables, and other useful articles of furniture. It is a good, tough, strong, and durable timber, and was formerly much used for archers’ bows, though much inferior to the wood of the yew tree. It grows to a large size, and lives to a great age. It forms, when planted properly, a



ELM.

[4—20]



ELM. Leaves and Flowers.

superb avenue, of which 'The Long Walk' at Windsor is, perhaps, the finest specimen.

"The proper age for felling elm trees has been disputed by different planters, but, probably, the best time is from fifty to eighty years.

"As the oak is the most picturesque in appearance, the elm is the tallest of all English trees, with a foliage showing every shade of colour. It is the first tree to mark the approach of summer, and sometimes so early as April, I have observed its branches covered with numberless small light-red flowers, which are exceedingly beautiful. To these succeed flat seeds, the greater part of which fall away before, or immediately after, the leaves spring forth, but a few will hang on all summer. You see the leaves are about three inches long, and two broad, rather rough on both sides, and indented at the edge. It is a quick-growing tree.

“Queen Elizabeth is said to have planted an elm with her own hands at Chelsea, where her father had a palace, in which she was brought up when an infant. It always went by her name, and was a stately flourishing tree, being thirteen feet in circumference at the bottom, and one hundred and ten feet high. It was felled, to the great regret of the neighbourhood, on the 11th November, 1745, and sold for a mere trifle.”

“It was really a pity,” said Thomas, “that so interesting a tree should be removed. Can you tell us of any other very remarkable elms, Uncle Ben.”

“There was one,” continued his Uncle, “called Piffe’s Elm, near the Boddington Oak, in the Vale of Gloucestershire, ninety feet high, and the smallest girth of the principal trunk was sixteen feet. In the middle of the last century, an elm was standing at Charlton, in Kent, about which

Horn Fair was kept ; the boughs spread to a distance of eight yards on every side, although the trunk was not more than a foot in diameter. This is now cut down, and a young tree planted in its place. Some elms at Fulham were planted in the time of Edward the Sixth; and one at Richmond, is said to have been planted by a courtier of King Henry the Seventh, when he kept his court there; this last is still in its prime. One of the elms planted by Sir Francis Bacon, in the year 1600, in Gray's Inn Walks, London, was felled, on account of its commencing to decay, in 1725, and was then more than twelve feet round.

“ Suppose we again pursue our walk, still talking as we proceed. I have heard of an old elm at Raglan Castle, in Monmouthshire, of the enormous circumference of twenty-eight feet six inches near the root. There are some very splendid elms in St. James's and Hyde parks, but a small beetle

with which they are infested, will, it is feared, rapidly destroy them.

“ The Chipstead Elm stands on a rising ground, in a retired part of the pleasure-grounds of George Polhill, Esq., of Chipstead Place, in Kent. It is sixty feet high, twenty feet in circumference at the root, and fifteen feet eight inches at three and a half feet from the ground ; it contains two hundred and sixty-eight feet of timber, notwithstanding its having lost some of its most important central limbs. It is a beautifully formed tree, and its trunk richly covered with ivy. The oldest elm tree in this country is at Checquers, in Buckinghamshire, having been planted in the reign of King Stephen : nothing now remains but a mere hollow shell, from which, however, two large limbs arise, that subdivide into a number of branches, and bear a large head of foliage. The stem is thirty-one feet in circumference.

“ In Norway, in times of great scarcity, the bark, dried and powdered, has been mixed with meal for bread. The dried leaves are excellent winter food for cattle, and in Herefordshire, and other parts of England, they are gathered in sacks for that purpose.

“ There is a species of elm called the Broad-Leaved, or Wych Elm. The trunk soon divides into long wide-spreading branches, and when at full growth, is not above a third of the height of the common elm. It blossoms before it is thirty feet high, whereas the common elm seldom flowers till it has attained a much greater height and age. The bark is so tough, that the boughs may be peeled from one end to the other, without its breaking; and is often made into ropes. The leaf is twice the size of the common elm leaf, and resembles that of the hazel. This tree grows plentifully in most parts of Hampshire, where it is

erroneously called *Witch Hazel*. The wood of this tree was occasionally used for long-bows, when they were used as an article of warfare.

“There is another variety of the common elm, called the Narrow-Leaved Elm, which is altogether of smaller growth; this is called in the nurseries the English Elm.”

“The elm is considered injurious and even fatal to bees, so that where elms grow in great numbers they do not thrive.

“Is not that an elm which stands at the end of Mr. R.....’s garden, with ivy growing round it?”

“Most certainly it is, and it is remarkable that running plants fix on the elm sooner than on any other tree. It has been called—

‘The lofty elm, with creeping vines o’erspread;’

and another author says,—

‘The female ivy so,
Enrings the barky fingers of the elm.’ ”

“I suppose he means by ‘barky fingers,’ the branches and twigs that are covered with bark,” said Frank.

“Right,” said his Uncle, “that is the meaning, and I think it is beautifully expressed by the poet. I will now repeat you four lines from Milton, which you, Thomas, may have read. I have exactly the feeling with which the poet must have been inspired when he wrote them :—

‘Nor always city pent, or pent at home,
I dwell ; but when spring calls me forth to roam,
Expatiate in our proud suburban shades
Of branching elm, that never sun pervades.’

“But, see, we are come to the end of the lane, where we must part. Make haste home. Good-night, boys.”

“Good night, Uncle Ben.”

RAMBLE SECOND.

IN WHICH UNCLE BEN GIVES SOME VERY INTERESTING PARTICULARS OF THE CHESNUT, THE BEECH, AND THE HAZEL.

“HERE you are again, boys,” said Uncle Ben. “I am glad you are come early, for we must have a long ramble, as far as the foot of Tor Hill, to see the chesnut and the beech. Wait one minute while I put on my hat; you, Frank, can get my stick.”

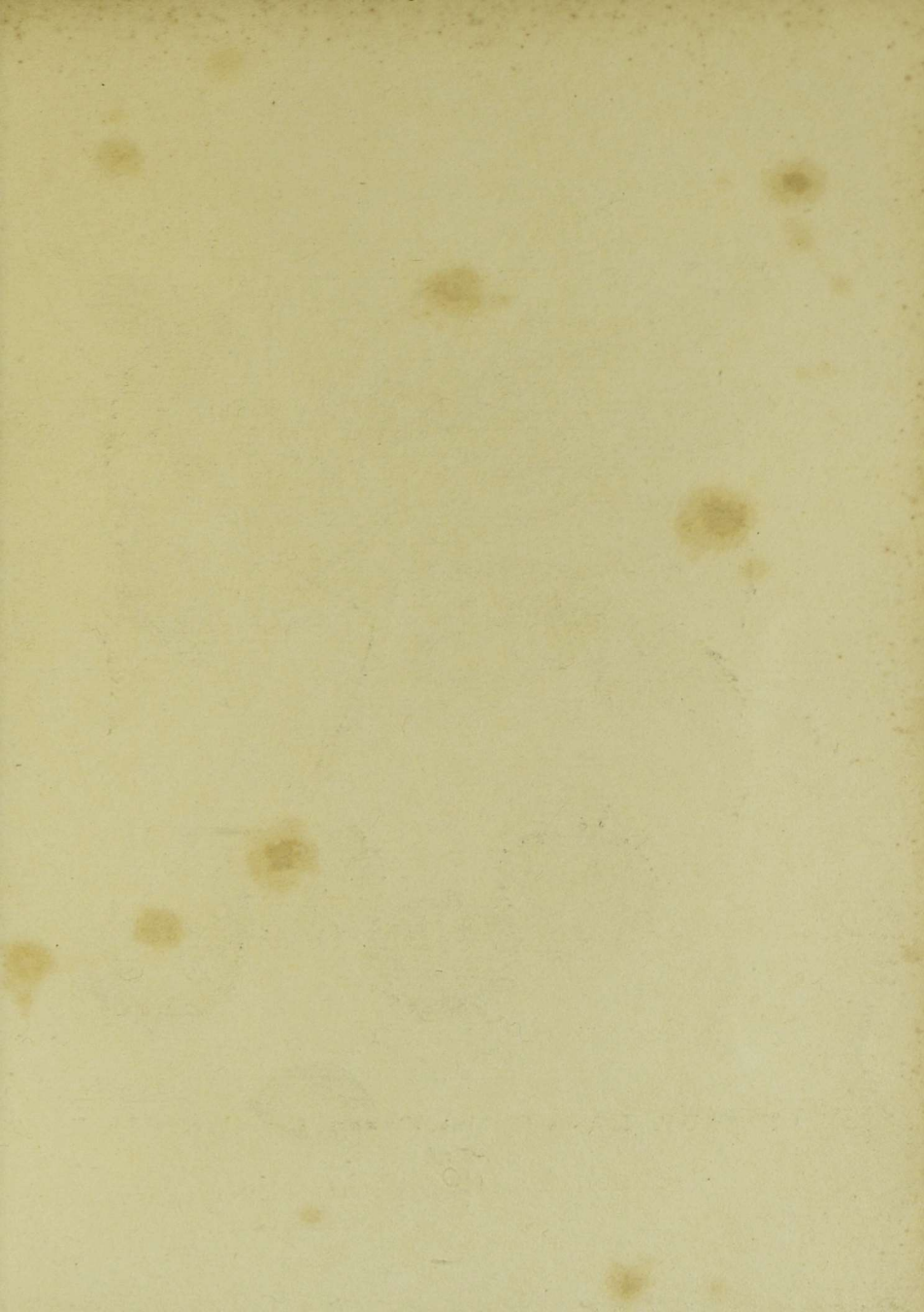
“And I will run and open the gate,” said Thomas.

“The chesnut, where it has room,” said Uncle Ben, “will grow to a great size, and spreads its branches freely, to a great distance on every side. It is commonly called the Spanish chesnut in this



CHESNUT.

[6-28]





CHESTNUT. Leaves, Catkins, Flowers; Capsule closed and opening; Nut.

country, either because it first came to us from Spain, or because the fruit, which grows to great perfection in that warm climate, is brought from thence to England; those that grow here being very small, are generally left for the deer, squirrels, pigs, &c.

“ In most parts of England the chesnut thrives well, there being anecdotes of many very large ones, in various parts of England, Ireland and Scotland. There is one in the garden at Castle Leod, in Ross-shire, which measures, at least, fifteen feet in circumference, and which, a few years ago, showed no signs of decay. A chesnut tree, at Hitchin Priory, in Hertfordshire, had, in 1789, a circumference of more than fourteen yards, at five feet from the ground. In Gloucestershire, there was a chesnut, in the hollow of which was a pretty wainscoted room, furnished with seats, and lighted with windows. But the most remarkable

tree of this kind in England, is the celebrated one at Tortworth, the seat of Lord Ducie, in Gloucestershire. So far back as the year 1150, it was called the Great or the Old Chesnut of Tortworth. It fixes the boundary of the manor, and is supposed to be upwards of one thousand years old. In 1720, it measured fifty-one feet in girth, at six feet from the ground; it is divided, at the crown, into three limbs, one of which measured twenty-eight feet and a half in girth, five feet above the crown of the trunk. There are many fine chesnuts on the banks of the river Tamar, in Cornwall, and at Beckworth Castle, in Surrey.

“The great chesnut, called ‘the Four Sisters,’ in the Park of Cobham Hall, stands in the heronry. Its original head is gone, but it has been replaced by a set of vigorous stems, which have probably given to it the name which it bears. The trunk, however, is extremely grand, and the whole tree

very picturesque. It is thirty-five feet two inches in circumference at the ground, avoiding the spurs; twenty-nine feet, at three feet from the ground; thirty-three feet, at twelve feet from the ground; and forty feet, at the point where the stem divides.

“There is a beautiful chesnut at Riccarton, in the county of Edinburgh. One of the large stems was broken off many years ago, so that the trunk has been much injured and decayed. But its boughs and foliage are as full and rich as can possibly be, and the branches have, in many places, reached the ground, and rooted. They extend over an area of seventy-seven feet in diameter, and immediately above the ground the trunk measures twenty-seven feet in girth. A Spanish chesnut at Prestonhall, at one foot from the ground, measures eighteen feet in girth; at three feet, fifteen feet; at four feet, fourteen feet six inches;

and at ten feet, it is nineteen feet. There was a chesnut, also, of surprising bulk at Levenside, in Dunbartonshire; it was overthrown by a hurricane on the 13th of January, 1739, but its precise dimensions have not been ascertained.

“But there is one upon Mount Etna, which far surpasses any other in the whole world; it is called ‘*Castagno de Cento Cavalli*,’ or ‘the Chesnut of the Hundred Horses.’ I have, in my pocket, a book which contains an account of it. Thomas, will you read it to us, as we sit under the boughs of this beautiful chesnut, and I will afterwards give you some more particulars of this tree?”

“With the greatest pleasure, Uncle,” said Thomas:—

“‘From this place, it is not less than five or six miles to the great chesnut trees, through forests growing out of the lava, in several places almost impassable. Of these trees there are many of an

enormous size ; but the *Castagno de Cento Cavalli* is by much the most celebrated. I have even found it marked in an old map of Sicily, published near a hundred years ago ; and in all the maps of Etna and its environs it makes a very conspicuous figure. I own I was by no means struck with its appearance, as it does not seem to be one tree, but a bush of five large trees growing together. We complained to our guides of the imposition, when they unanimously assured us, that, by the universal tradition, and even testimony of the country, all these were once united in one stem ; that their grandfathers once remembered this, when it was looked upon as the glory of the forest, and visited from all quarters ; that, for many years past, it had been reduced to the venerable ruin we beheld. We began to examine it with more attention, and found that there is an appearance that these five trees were really once

united in one. The opening in the middle is at present prodigious; and it does, indeed, require faith to believe that so vast a space was once occupied by solid timber. But there is no appearance of bark on the inside of any of the stumps, nor on the sides that are opposite to one another. Mr. G..... and I measured it separately, and brought it exactly to the same size; namely, two hundred and four feet round. If this was once united in one solid stem, it must, with justice, indeed, have been looked upon as a very wonderful production of the vegetable world, and deservedly styled 'The Glory of the Forest.' I have since been told by the Canon Recupero, an ingenious ecclesiastic of this place, that he was at the expense of carrying up peasants, with tools, to dig round the *Castagno de Cento Cavalli*; and he assures me, upon his honour, that they found all these several stems united below in one root. I

alleged, that so extraordinary an object must have been celebrated by many of their writers; he told me that it had, and produced several examples. He says, that Massa, one of their most esteemed authors, says of a chesnut-tree, which may probably be the tree in question, that the hollow of it contained three hundred sheep; and thirty people, on horseback, had often been in it at one time.”

“Very well read, Thomas,” said Uncle Ben; “it must, indeed, have been ‘the glory of the forest,’ as Mr. Brydone, the author of the work you have read from, calls it. He also speaks of two more, which stood near the chesnut of the hundred horses: the first measured seventy-six feet round, at two feet from the ground. It rises from one solid stem to a considerable height; after which it branches out, and is at present a much finer object than the one you have been reading of: the other was also a remarkably fine tree.

“If you are not tired of hearing about this celebrated tree, I have another book in my hand, from which I will read you another account of it, written by Captain Smith, who visited Mount Etna eight or ten years since.”

“Pray do, Uncle Thomas,” said Frank; “we can never be tired of hearing of so wonderful a tree; and this is a delightful seat.”

“Speaking of the trees of Sicily, he says, ‘That father of the forest, the venerable *Castagno de Cento Cavalli*, supposed to be the oldest tree in the world, appears to consist of five large and two smaller trees; which, from the circumstance of the bark and boughs being all outside, are considered to have been one trunk originally. Some say the two smaller ones are saplings planted purposely to complete the circle: the peasants strongly affirmed that the roots, having been inspected, were found to be in common; but not

having had the means, or permission, myself, of examining further into the fact, I could not form a decided opinion. The largest trunk is thirty-eight feet in circumference; and the circuit of the whole, measured just above the ground, is one hundred and sixty-three feet. It still bears rich foliage, and much small fruit, though the heart of the trunks is decayed; and a public road leads through them. Some other trees, of the same species, and of a very large size, are spread over the adjacent grounds.' You see Captain Smith has made an error, in measuring the tree, of forty-one feet.

"The leaves of the chesnut remain on late in the autumn, when they are of a fine, rich, golden colour. The nuts are a favourite food of the deer; and among the lower orders of people in the Alps, in Savoy, and some parts of the south of France, they are eaten not only boiled or

roasted, but also made into flour, and formed into bread, cakes, and puddings. They are rather unwholesome, being hard of digestion ; yet there are instances, in Italy, of men living to the age of ninety or a hundred years, who have fed almost wholly on chesnuts. They are eaten in Italy with orange or lemon juice and sugar ; and are sold, roasted, in the public streets. These nuts are used for whitening linen, and for making a superior kind of starch. The best way to preserve them, is in earthen vessels, in a cold place, or in dry sand. The leaves are a good litter for cattle, and make good mattresses to lie on ; but they make a crackling noise when a person turns upon them. The leaves, you see, are large, of a brilliant green, four or five inches long, and two in width ; wrinkled, and marked with several veins.

“ The chesnut tree is very ornamental while

growing ; and makes excellent timber. In extreme age, its timber is not so valuable as when of a moderate size. One advantage of chesnut is, that there is very little sap-wood ; and thus, in the *growing state*, it contains much more timber of a durable quality than an oak of the same dimensions.

“ The timber is peculiarly adapted for casks and water-pipes, not being liable to shrink after it is once seasoned :—

‘ Staves that nor shrink nor swell,
The cooper’s close-wrought cask to chesnut owes.’ ”

“ I thought you said that casks were made of elm-tree,” said Frank.

“ So they are ; many articles are made of different kinds of timber, that being used which is the readiest to obtain. In Italy, the chesnut is planted to form stakes for vines ; and in Kent and Worcestershire, for hop-poles. Some of the

timber, being stained the same colour, has been mistaken for mahogany. It is used, with oak, in the construction of houses, in mill-work, and in household furniture.

“And now, I think, I have told you all I know of the chesnut; so we will proceed on our ramble, and I will give you some few particulars of the beech.”

“Thank you, Uncle Ben,” said Harry; “I am sure we ought to be very much obliged to you; and I like your account of trees better, the farther we proceed. Do not you, Thomas and Frank?”

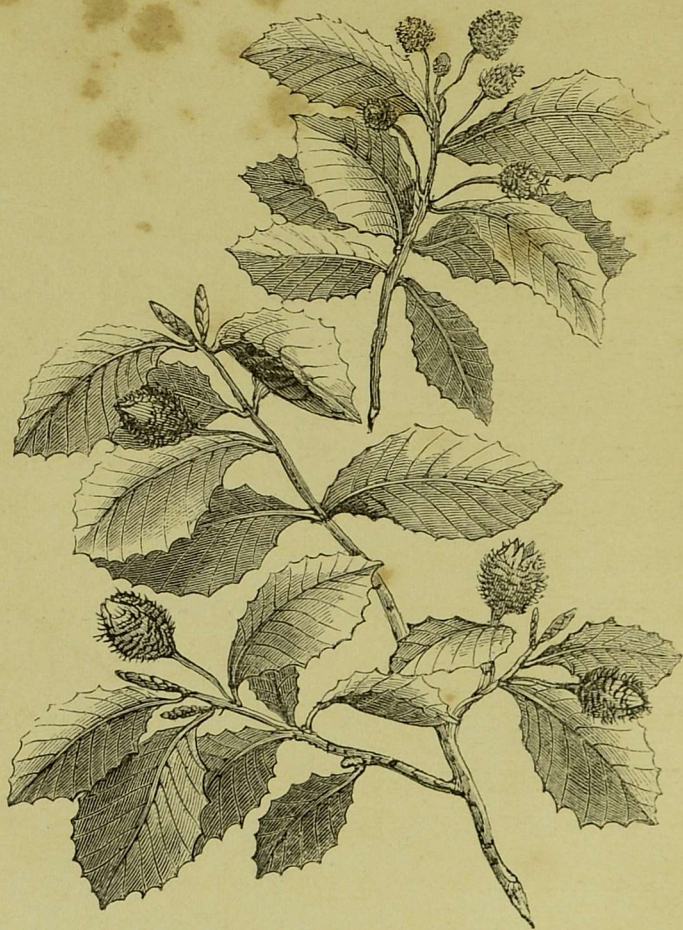
“Indeed, we do,” answered they; “nothing could be more interesting.”

“The beech,” continued Uncle Ben, “is undoubtedly an English tree, and a native of many countries of Europe; but it will not grow in very high or cold situations. It is more generally diffused, and more abundant in England than the



BEECH.

[8-40]



BEECH. Leaves, Flowers, and Mast.

chesnut. It sometimes grows to an enormous size ; and in its usual growth, is a fine, lofty, and spreading tree. Its foliage is peculiarly soft, and pleasing to the eye. The bark of the beech is remarkably smooth, and of a silvery cast : this, added to the splendour and smoothness of its foliage, gives a striking neatness and delicacy to its general appearance. The beech, therefore, standing singly, and suffered to form its own natural head, is highly ornamental ; and its leaves varying their hue as the autumn approaches, renders it in this point of view still more desirable.

“ That tree, on the hill before us, is a beech tree. They are fond of chalky districts ; and this hill has a great deal of chalk in it, as you may see by the flints lying about. Is it not, as I told you, a very beautiful tree ? ”

“ It is, indeed, Uncle Ben,” said Frank. “ Are you aware of any particular beech trees ? ”

“ There are some very large ones on the hills of Surrey and Kent, and on the Cotswold and Stroudwater hills of Gloucestershire. It flourishes exceedingly upon some of the banks of the Wye, in Hereford and Monmouth shires. There are two, the finest I have ever seen, close to Edgbaston church, near Birmingham; the girth of one is immense; and they have run up to a great height, though I cannot give you the exact dimensions.

“ The beech tree, at Korole Park, in Kent, is a most beautiful specimen of this tree, of which there are several very fine ones in the grounds where it stands. It rises with a stem which thickens upwards, till it bursts out into a perfect forest of limbs, which sweep away in all directions. At three feet from the ground, it is twenty-four feet in circumference. It rises to the height of one hundred and five feet; its boughs extend one hundred and twenty-three feet; and

it contains four hundred and ninety-eight feet of solid timber.

“A beech tree, in the grounds of Mr. Burn Callendar, at Prestonhall, in the county of Edinburgh, at one foot from the ground, measures seventeen feet three inches in girth; at three feet, it is fourteen feet seven inches; and at four feet, it is fourteen feet six inches.

“There is a very beautiful, perfectly healthy, and thriving beech, in the close vicinity of the great ash at Earlsmill, in Morayshire. In 1812, it was measured at three feet from the ground, and found fifteen feet in girth. At the root, it is about twenty feet. There is another beech, of similar appearance, in a garden, in the town of Elgin, which is only a few inches less than that at Earlsmill.”

“Is the beech a very useful tree, Uncle Ben?” said Thomas.

proceed homeward, I think we may as well go on with the hazel-nut tree. I dare say you are fonder of hazel-nuts than beech-nuts."

"I thought the hazel was a shrub," said Frank.

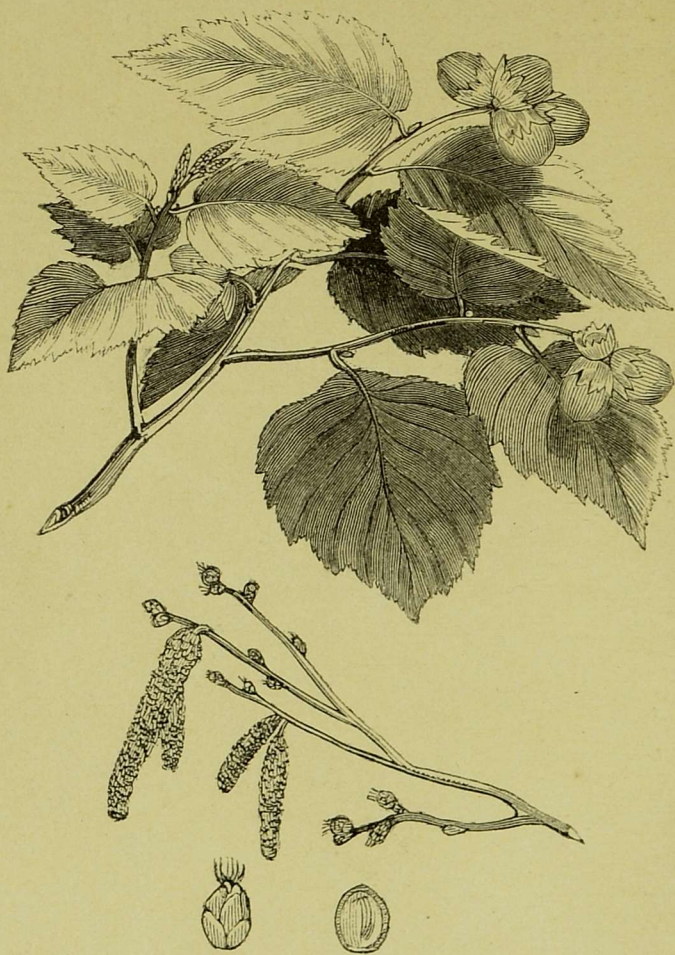
"So it is; yet, if allowed time for growth, it will yield poles twenty feet in length; but it is generally cut down long before it attains that height, for walking-sticks, fishing-rods, &c. There are several varieties of the hazel: the white filbert, the red filbert, the cob, and the cluster-nut. The white and red filbert are so called, from the colour of the outer skin of the kernel. The cob-nut is very round, and large; and the cluster-nut is produced in large bunches, or clusters, at the ends of the branches.

"The trunk of the hazel is covered with a whitish cloven bark, which is smooth on the branches; frequently of a bay colour, and spotted with white. The leaves are hairy on both sides;



HAZEL.

[10—46]



HAZEL. Leaves, Catkins, and Nuts.

dark green above, a paler green on the under side, growing on very hairy round foot-stalks, about an inch long. The common hazel grows wild in every part of Britain; the shells of the nuts being found in the bogs even in the coldest parts. It is said, that hazel prospers well where quarries of freestone lie underneath; as at Hazelbury, in Wilts; Hazelingfield, in Cambridgeshire; Hazelmere, in Surrey, and other places. The places here mentioned are evidently named from the hazel.

“It is a very delightful amusement, in the autumn, to go ‘*a-nutting*,’ in some country place, where plenty are to be found. But the squirrel is sure to be beforehand with you, it being his favourite haunt:

————— ‘Upon whose nutty top
A squirrel sits, and wants no other shade
Than what by his own spreading tail is made:
He culls the soundest, dext’rously picks out
The kernel sweet, and throws the shells about.

“Hazel is employed for making baskets and hoops, and also fishing-rods and walking-sticks, as I told you before.”

“Thank you, Uncle Ben,” said Harry. “Why, we have learned a great deal about three kinds of trees to-night; we shall get through them all soon, if we go on at such a rate!”

“Oh, no; we have scarcely begun yet, you must know; but let me see you this day week, when we will have another such a ramble as this, which I think has been remarkably pleasant. But I am afraid your mama will be expecting you; so I must wish you all good-bye.”

“Good-night to you, Uncle Ben.”

RAMBLE THIRD.



IN WHICH THE ASH, THE MOUNTAIN ASH, THE BIRCH, THE MAPLE, AND THE HOLLY, ARE SEPARATELY TREATED ON BY UNCLE BEN, AND PROVE VERY INTERESTING.

“WELL, boys, you see I have called for you this evening; so put on your caps, and we will start on our ramble.”

“We are quite ready, Uncle,” said Thomas.

“Pray, Uncle Ben,” said Frank, “what is the timber of the ash principally used for?”

“I will tell you, as we walk along,” said his uncle. “The ash is the most useful tree, to the husbandman, of any that can be mentioned. Its wood is hard, and remarkably tough and elastic. Do you understand me?”

“You mean, uncle, that it is not liable to snap,” said Harry.

“Just so ; and, on that account, it is in great request with the coachmaker and wheelwright. It is cut into palisades, hop-poles, tool-handles, hayfork-handles, walking-sticks, carts, ploughs, and ladders ; and has been appropriately called the ‘ Husbandman’s Tree.’

‘ Tough-bending ash

Gives to the humble swain his useful plough ;

And, for the peer, his prouder chariot builds.’ ”

“Is not my leaping-pole made of ash, Uncle Ben ?” said Thomas. “I should suppose it must be ; for it is very strong, and yet is not very thick or heavy.”

“Yes ; I think it likely that it is,” said his uncle ; “and I am glad to find you apply the information I give you, to other things which may come under your notice.



ASH. Leaves, Flowers, and Keys.

“In the north of Lancashire, ash trees are lopped as fodder for the cattle. The leaves have been used by poor people for tea. Medicines have been prepared from the leaves, the bark, the seeds, and the saw-dust. The ashes of the wood make good pot-ash; and the bark is used for tanning nets and calfskin.

“Although useful in so many respects, the ash is certainly a mischievous neighbour. The numerous shoots from the root spread so widely abroad, near the surface of the earth, that they will not permit anything else to grow near it. It also impoverishes the land; and the drip of its branches is injurious to grass and corn. It will, however, grow in the most barren soil, and in the most exposed situations, and will bear the beating of the bleak sea winds; so that it is a good tree to plant near the coast, where few trees flourish.

“Ash-wood is sometimes curiously veined, and

is then highly valued by cabinet-makers, who give it the name of green ebony. ‘The woodman who finds it,’ says an old author, ‘may make what money he will of it.’ Many persons have told strange stories of the curious figures to be found in ash-wood. It has been said, that in the house of a gentleman, in Oxfordshire, a dining-table, made of an old ash, represented many figures of men, beasts, and fish; and that, in Holland, an ash, being cleft, discovered the forms of a chalice, a priest’s albe, his stole, and several other sacerdotal vestments. But it is probable that these are imaginations; twenty different observers, perhaps, having twenty different ideas on the same subject.

“The ash, in general, does not grow to a great size; but there have been some very large ones. Near Kennety church, in King’s County, Ireland, is an ash, the trunk of which is twenty-one feet ten inches round; and seventeen feet high, before

the branches break out, which are of enormous bulk. When a funeral of the lower class passes by, they lay the body down a few minutes, say a prayer, and then throw a stone, to increase the heap which has been accumulating round the roots.

“ The Great Ash, at Woburn Abbey, in Bedfordshire, is twenty-three feet six inches in circumference at the ground; twenty feet at one foot above the ground; and fifteen feet three inches at three feet from the ground. It is ninety feet high; and the ground covered by its branches is one hundred and thirteen feet in diameter. One of the limbs is nine feet in girth; and the whole tree contains about eight hundred and seventy-two cubic feet of timber.

“ There is an ash tree, at Carnock, in Stirlingshire, ninety feet high; thirty-one feet in girth at the ground; nineteen feet three inches at five feet from the ground; and twenty-one feet six

inches, when measured four feet higher up. At ten feet from the ground, it divides into three large limbs, each of which is ten feet in circumference. It was planted about the year 1596, by Sir Thomas Nicholson, the Lord Advocate of James the Sixth. An ash, on Inch Merin, in Lochlomond, Dunbartonshire, in September, 1784, measured twenty feet eight inches. Another ash, not far from this, measured twenty-eight feet five inches. These two trees have been broken over about seven or eight feet above ground, much more than half a century ago; as there is a group of large boughs growing from the top of their old stumps, like a pollard. Both trees are hollow; and each forms a great bulk of living and dead timber, strangely mixed and interwoven by a succession of growths. Another ash, at Castle Huntley, in the parish of Longforgan, in Perthshire, called the Glames Tree, in the year 1796,

was found to measure seventeen feet in girth at a yard high; near the root, it measured twenty-seven feet.

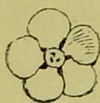
“ At Doniray, near Clare Castle, in the county of Galway, is another, that, at four feet from the ground, measures forty-two feet in girth; and six feet higher, thirty-one feet. The trunk has long been hollow; a little school having been kept in it. There are very few branches remaining; but those few are fresh and vigorous. I have heard of another, at Dunbarton, which was seventeen feet in circumference.

“ Gilpin, in his work on ‘Forest Scenery,’ calls the oak the Hercules of the Forest; and the ash, the Venus. The chief characteristic of the one, is strength; of the other, elegance. The ash carries its principal stem higher than the oak: its whole appearance is that of lightness; and the looseness of the leaves corresponds with the

lightness of the spray. Its bloom is one of the most beautiful appearances of vegetation. The ash, however, drops its leaves very early; and instead of contributing its tinct to the many-coloured foliage of the autumnal woods, it presents wide blanks of desolated boughs. In old age, too, it loses that grandeur and beauty which the oak preserves."

"I thought that was an ash tree, on which so many red berries grow," said Thomas.

"That is the mountain ash; quite a different tree from the common ash. In the south of England, it is seldom found of any considerable size; but in the northern counties, and in Wales, there are large trees, although the growth is slow. The blossoms are white, and sweet-scented; blowing in May, in little clusters; these are succeeded by berries, which, when ripe, are of a brilliant red colour. The blackbirds and thrushes are so fond



MOUNTAIN ASH. Leaves, Flowers, and Berries.

of them, that they will not always give them time to ripen before they begin to eat them.

“The berries of the mountain ash, dried and powdered, make a wholesome bread. An ardent spirit also is distilled from them; small in quantity, but of fine flavour. Infused in water, they make an acid liquor, somewhat similar to perry, which is drunk by the Welsh poor, who call it Diod-Graviole, or Ciavol-drink. In the island of Jura, this juice is used as an acid for punch.

“The wood is used in mill-work; for tables, chairs, &c.; and the roots are formed into knife and spoon handles.

“In ancient times, the mountain ash was an object of great veneration; and it has been observed, that a stump of it is frequently found in an old burying-ground, or near the circle of a Druid temple, whose rites it formerly invested with its sacred shade.

“ And now, boys, we will stop at this farmhouse, and get a draught of new milk ; I dare say, you will have no objection ? ”

“ We shall be very glad of it, Uncle Ben,” said Frank ; “ and, perhaps, you will, afterwards, tell us what that beautiful tree is, at the gate, with bark almost like silver ? ”

“ Let us sit down on this clean bench, and I will soon give you some particulars of the birch ; for that is the name of the tree. You may, at all times, distinguish it by its bark, which, as you say, is much like silver ; by the airy appearance of its small leaves in summer ; and, in winter, by the elegant drooping of its bare boughs : indeed, it is most ornamental when in a leafless state.

“ There are many birches, in the forest of Tarnawa, in Morayshire, which are ten and eleven feet in circumference ; and one of them, at three feet from the ground, measures thirteen feet.



BIRCH.

[14—58]



BIRCH. Leaves and Catkins.

[15-59]

“A weeping birch, at Ballogie, in the parish of Birse, in Aberdeenshire, in 1792, measured five feet in circumference; but it carried nearly this degree of thickness, with a clear stem, up to the height of about fifty feet; and it was judged to be about one hundred feet high.

“In Lancashire, a great number of besoms are made of birch twigs. The Highlanders of Scotland use it for tanning leather; the outer rind they burn instead of candles; and it will likewise dye yellow. To the Northern peasant, the birch is, indeed, of the utmost importance: he uses it not only in building, but for many articles of household furniture. It furnishes him also with fuel; and, in times of scarcity, even with food. The Norwegians are often reduced to hard and scanty fare; indeed, they seldom have any other; and the inner bark of the birch, or fir tree, is dried, ground, and made into bread: sometimes mixed

with corn, sometimes alone. The peasants of Norway and Lapland also eat of this bark bread. Birch wood is thought to make the best charcoal; and its soot is a good lamp-black for printers' ink. The leaves are good fodder for horses, kine, sheep, and goats; and the seeds are the favourite food of the siskin, or averdevine.

“A wine is made from the sap of the birch tree, from which a spirit is extracted. The English housewife was formerly skilled in making birch-wine :

‘ And though she boasts no charms divine,
Yet she can carve, and make birch-wine.’

“The wood of the birch, on the banks of the Garry, in Glengarry, Scotland, is cut into staves, with which herring-barrels are made. It is an excellent wood for the turner, being light, compact, and easily worked; and for undressed palings and gates, such as are used in the sheep

countries, few timbers are superior to it. It is not very durable, but is exceedingly cheap; as it thrives upon soils that are fit for little else, and sows itself without any assistance from art. It grows upon rocks which one would think absolutely bare; and such is the power of its roots, that they have been known to separate stones, several tons in weight, to reach the soil.

“ In those parts of the Highlands of Scotland, where pine is not to be had, the birch is a timber for all uses. The stronger stems are the rafters of the cabin; wattles of the boughs, are the walls and the door; even the chests and boxes are of this rude basket-work. To the Highlander, it forms his spade, his plough,—and should he happen to have one—his cart, and his harness; and when other materials are used, the cordage is still withies of twisted birch. These birch ropes are far more durable than ropes of hemp; and

the only preparation is to bark the twig, and twist it while green."

"I should not have supposed that a tree could be used for so many purposes," said Frank.

"All trees have their uses," continued Uncle Ben; "some are of more service than others; but we generally find them adapted to the situations in which they are placed, and the wants of the inhabitants. But we must continue our ramble, and I will give you an account of the maple, or sycamore; of which there are about thirty-six species, natives of different countries. It will be necessary to notice only two—the great maple, and the American sugar maple: the first, on account of its timber; and the latter, on account of its sap.

"The great maple grows very high, with a spreading top. It is in leaf by the middle of April, and the leaves, on their first appearance, are of a plea-



GREAT MAPLE. Leaves, Flowers, and Seeds.

sant green; but they distil a clammy juice that is agreeable to insects, so they soon perforate and disfigure them. The flowers are full-blown by the end of April; but they are of too green a colour to make much show.

“The sycamore is good to plant near the sea, because it is not injured by the spray. An enormous sycamore is said to have grown at Knowle, in Kent, which is represented in Badeslade’s view of that seat, and is noticed in Dr. Harris’s history of the county. It was twelve or fourteen feet in girth.

“The original plantations of Vauxhall and Marylebone gardens were chiefly of the great maple. It is not considered to live to a great age: yet some have been noticed, at Cambridge, in a flourishing state, at the age of one hundred and eighty-five years.

“In spring and autumn, this tree, if wounded,

will pour forth an abundance of juice from the stem, from which may be made a good wine and a tolerable sugar. There are two varieties of this tree, one with broader leaves, and one of which the leaves are variegated.

“The timber is very close and compact, easily cut, and not liable either to splinter or to warp. Sometimes it is of uniform colour, and sometimes it is very beautifully curled and mottled. In the latter state, as it takes a fine polish, and bears varnishing well, it is much used for certain parts of musical instruments. Maple contains none of those hard particles which are injurious to tools, and is therefore employed for cutting-boards; and not being apt to warp, either with variations of heat or of moisture, it is an eligible material for saddle-trees, wooden dishes, founders' patterns, and many other articles both of furniture and of machinery. Before the general introduction of

pottery-ware, it was the common material for bowls and platters of all sorts ; and many are still made of it. The maple forms a very pleasing shade, from the largeness of its leaves ; but the twisting of its branches is injurious to its picturesque effect :

‘ The maple not unlike the lime-tree grows,
Like her, her spreading arms abroad she throws,
Well clothed with leaves.’

“ A plantation of sycamores, encircling a school-house and play-ground, on a barren eminence, facing the High Moors of Derbyshire on the one hand, and on the other overlooking a richly cultivated, well wooded, and mountainous district, gave rise to some verses I have in my hand, which you Harry shall read to us ; they were called the ‘ Bole-hill Trees.’ ”

“ I will try, Uncle Ben,” said Harry, “ but I am not sure whether I can read this writing :

'Now peace to his ashes who planted yon trees,
That welcome my wandering eye !
In lofty luxuriance they wave with the breeze,
And resemble a grove in the sky :
On the brow of the mountain, all barren and bleak,
They flourish in grandeur sublime ;
Adorning its bald and majestic peak.
Like the locks on the forehead of Time.

A land-mark they rise. To the stranger forlorn,
All night on the wild heath delay'd,
'Tis rapture to spy the young beauties of morn,
Unveiling behind their dark shade :
The homeward-bound husbandman joys to behold,
On the line of the grey evening scene,
Their branches yet gleaming with purple and gold,
And the sun-set expiring between.

The maidens that gather the fruit of the moor,
As weary and fainting they roam,
Through the blue dazzling distance of moonlight explore
The trees that remind them of home :
The children that dwell in the valley suspend
Their sports, and in ecstasy gaze,
When they see the broad moon from the mountain ascend
And the school-house and grove in a blaze.

Ah! sweet to my soul is the beautiful grove,
Awakening remembrance most dear;
When lonely in anguish and exile I rove,
Wherever its glories appear.
It gladdens my spirit, it soothes from afar,
With tranquil and tender delight;
It shines through my heart like a hope-burning star,
Alone in the valley of night.

It tells me of moments of innocent bliss,
For ever and ever gone o'er;
Like the light of a smile, like the balm of a kiss.
They were—but they will be no more!
Yet wherefore of pleasures departed complain,
That leave such enjoyment behind?
Though the sun of their sweetness be sunk in the main,
Their twilight still rests on the mind.

Then peace to his ashes who planted yon trees!
Supreme o'er the landscape they rise,
With simple and lovely magnificence please
All bosoms, and ravish all eyes;
Nor marble, nor brass could emblazon his fame,
Like his own sylvan trophies, that wave
In graceful memorial, and whisper his name,
And scatter their leaves on his grave.

Ah ! thus when I sleep in the desolate tomb,
May the laurels I planted endure,
On the mountain of high immortality bloom,
'Midst lightning and tempest secure !
Then ages unborn shall their verdure admire,
And nations sit under their shade ;
While their spirit in secret shall move on my lyre,
Aloft in their branches displayed.

Hence, dream of vain glory !—the light drop of dew
That glows in the violet's eye,
In the sun-beams of morn, to a fugitive view,
May rival a star of the sky :
But the violet is plucked, and the dew-drop is flown,
The star unextinguished shall shine ;
Then *mine* be the laurels of virtue alone,
And the glory of paradise mine ! ”

“ Did you call the other the sugar maple, Uncle Ben ? ” said Frank, “ I thought sugar was obtained from sugar canes.”

“ And from this species of the maple too,” replied his uncle, “ a large quantity of sugar is made by tapping the trees early in spring, and boiling the juice. It is supposed that the Ame-

ricans obtain sugar from other species of maple also, but this yields the most juice. In its native country, large tracts of land are covered with it ; and it not only yields sugar plentifully, but of a quality equal to the best prepared from the cane. The drawing off and boiling the juice may be done by women and girls ; and when the tree is skilfully tapped, it will last many years. It has been said that the natives not only have enough sugar for their own consumption, but export it also. The tree is not injured by tapping ; but, on the contrary, yields the more juice in proportion to the number of times it has been tapped, and a tree has been known to flourish after forty-two annual operations.

“ In a good season, a tree of an ordinary size yields from twenty to thirty gallons of syrup, from which are made five or six pounds of sugar. The trees that grow in exposed situations are said to

yield more sap than others : a farmer of Pennsylvania, having planted a number of these trees in his meadows, obtained, twenty years afterwards, a pound of sugar from every three gallons of sap.

“ The season for tapping trees is in February, March, and April ; from a pint to five gallons of syrup may be obtained from one tree in a day ; but on the 14th of April, 1789, twenty-three gallons were obtained from a single tree. An auger is introduced three-quarters of an inch deep, in an ascending direction, and afterwards gradually deepened to the extent of two inches. A pipe, which is generally made of elder wood, is then put into the wound, about half an inch deep, projecting from three to twelve inches. The tree is first tapped on the south side, afterwards on the north ; the sap flows from four to six weeks, according to the temperature of the weather : three or four gallon troughs are placed under the spout to re-

ceive it; this is carried every day to a large reservoir, from which, after being strained, it is conveyed to the boiler.

“The sugar is improved by straining the sap through a cloth; when it is about half boiled, a small lump of butter or hog’s lard is put in to prevent its boiling over, and lime, eggs, or new milk, are mixed with the sap to clarify it. The latter is reckoned the best, but clear sugar may be made without either of them. When sufficiently boiled, it is clayed and refined much in the same manner as the cane sugar. The sap should never be kept longer than twenty-four hours before it is boiled; and that boiled in a copper vessel will be of a fairer colour than when boiled in an iron one.

“For many years a great many private families in Pennsylvania have supplied themselves with this sugar in plenty. Many have made 200 to 400 lbs.

in a year. One man sold 600 lbs. made in one season, entirely with his own hands; another, without any assistance, and besides attending to the other business of his farm, made 640 lbs. in four weeks.

“The Indians in Canada have made maple sugar time out of mind, and obtained a pound from every gallon of sap. The French began to refine it in that country towards the close of the seventeenth century.

“During the summer months, and early part of the autumn, the tree yields a thinner sap, not fit for sugar; this affords a pleasant beverage in harvest time, and is sometimes used instead of rum, by farmers in Connecticut, whose ancestors have left them here and there a maple tree in the midst of a field, probably intended as a shade for their cattle. Mr. Bruce describes a beverage of the same kind, prepared by the inhabitants of

Egypt, by infusing the sugar-cane in water, which he declares to be the most refreshing drink in the world.

“ I have a short account of the sap of the sugar maple, when used as a drink, in my pocket. Harry, you read it to us.”

“ ‘ This tree yields a sap, which has a much pleasanter taste than the best lemonade or cherry water, and makes the most wholesome drink in the world. This liquor is drawn by cutting the tree two inches deep in the wood ; the cut being made sloping to the length of ten or twelve inches ; at the lower end of this gash a knife is thrust into the tree slopingly, so that the water runs along the cut, as through a gutter, and falls upon the knife, under which a vessel is placed to receive it. Some trees will yield five or six bottles of this water in a day ; and some inhabitants of Canada might, in one day, draw twenty hogsheads, if they

would thus cut all the maple trees in their plantations. The gash does no harm to the tree."

"Well done, Harry, you have much improved in your reading."

"Uncle Ben," said Frank, "you have not yet given us a description of the holly,—see yonder is one, and it will be a good opportunity as we walk home to give us an account of that prickly tree."

"Why, I was going to say that we would leave off for the evening, but, as you seem to wish it, and it will not take long, I will give you a short account of it.

"The common holly at full growth is generally from twenty to thirty feet high, but it has been seen at the amazing height of sixty feet. This tree is excellent for a hedge or fence, and would be preferable to the hawthorn for the purpose, but it grows slowly, and it is difficult to transplant, so that out of fifty plants, ten chances to one that



HOLLY.

[17-74]



HOLLY. Leaves, Flowers, and Berries.

[18-75]

twenty die. When it grows naturally and is old, the upper part of the tree is clothed with entire leaves, without thorns, only ending in a sharp point. The flowers, which are of a dingy white, appear in May, in clusters of three, four, or five, and are succeeded by those bright scarlet berries, which you have seen so often. These berries will keep on the tree all winter if the birds do not eat them.

“ No shrubbery or plantation should be without the holly, for, being an evergreen, it has a most cheerful appearance in the midst of winter ; there is also a species of holly which has its leaves variegated ; this being intermixed with other plants, will add greatly to the effect and beauty of their appearance.

“ There are innumerable varieties of the common holly, but it will not be worth while telling you all ; the chief varieties are the gold and the silver-

edged holly, the hedge-hog holly, and that with yellow berries.

“The timber of the holly is very white and compact, which adapts it well for many purposes in the arts; though, as it is very retentive of its sap, and warps in consequence, it requires to be well dried and seasoned before being used. It takes a durable colour, black, or almost any other; and hence it is much used by cabinet-makers in forming what are technically called strings and borders, in ornamental works. When properly stained black, its colour and lustre are not much inferior to that of ebony. For various purposes of the turner, and for the manufacture of what is called Tunbridge ware, it is also much used; and, next to box and pear tree, it is the best wood for engraving upon, as it is close and stands the tool well. The slowness of its growth, however, renders it an expensive timber. The bark of the holly,

when boiled in water, fermented, and then separated from the fibres, forms bird-lime.

“But now we are arrived at home, I will get you, Thomas, to run into the library, where you will find a book on the table, bring it to me.”

“Is this it, Uncle Ben?”

“Yes, it is a copy of Southey’s Poems, and I will read to you some verses on the holly before we say good-bye.

‘O Reader! hast thou ever stood to see

The holly tree?

The eye that contemplates it well perceives

Its glossy leaves,

Ordered by an Intelligence so wise,

As might confound the Atheist’s sophistries.

Below a circling fence its leaves are seen,

Wrinkled and keen;

No grazing cattle through their prickly round

Can reach to wound;

But as they grow where nothing is to fear,

Smooth and unarmed the pointless leaves appear.

I love to view these things with curious eyes,
And moralise :
And in this wisdom of the holly-tree,
Can emblems see,
Wherewith perchance to make a pleasant rhyme,
One which may profit in the after-time.

Thus, though abroad perchance I might appear
Harsh and austere,
To those who on my leisure would intrude
Reserved and rude,
Gentle at home amid my friends I'd be,
Like the high leaves upon the holly-tree.

And should my youth, as youth is apt, I know,
Some harshness show,
All vain asperities I day by day
Would wear away,
Till the smooth temper of my age should be
Like the high leaves upon the holly-tree.

And as when all the summer trees are seen
So bright and green,
The holly leaves their fadeless hues display
Less bright than they ;
But when the bare and wintry woods we see,
What then so cheerful as the holly-tree ?

So serious should my youth appear among
The thoughtless throng ;
So would I seem among the young and gay,
More grave than they ;
That in my age as cheerful I might be
As the green winter of the holly-tree. ’

“ I dare say you do not understand the first part of it, nor do I think it necessary to explain it to you ; but the latter part you may well comprehend.”

“ He alludes to the circumstance of the top leaves of the holly not being furnished with prickles,” said Thomas.

“ Yes,” said his uncle, “ and I think the two last lines, speaking of the green leaves it bears in the winter, are very beautiful.”

“ Before we part, Uncle,” said Frank, “ I thought I would ask you to give us some account of the lime tree in our next ramble, if you have no objection.”

"I shall do so with great pleasure," replied Uncle Ben; "I was thinking that would be the next in turn. But to-night I must wish you good-bye."

"Good-bye, Uncle Ben. We are very much obliged to you for the information you have given us, and shall anxiously look forward to our next ramble."

RAMBLE FOURTH.



UNCLE BEN GIVES AN ACCOUNT OF THE LIME, THE WALNUT, AND THE MULBERRY; AND CAUTIONS HIS NEPHEWS AGAINST SHELTERING UNDER TREES DURING A THUNDER STORM.

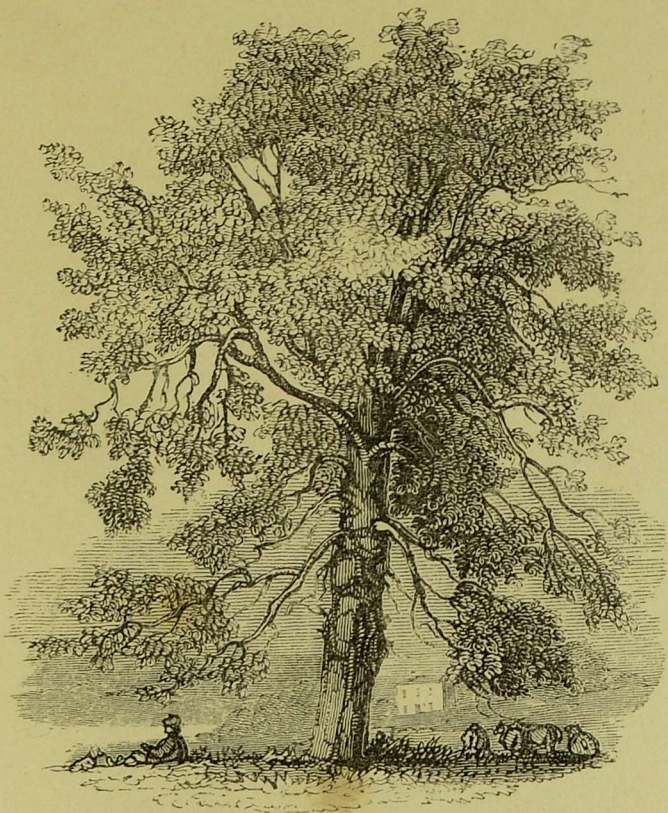
“AH! boys, how do you do to-day; I suppose you are expecting another of our delightful rambles, and as I have nothing else to do it will be the very thing.”

“Yes, Uncle, we had finished our lessons early, so mama allowed us to come.”

“Well, then, off we start; and first of all of the lime tree, of which there are many in the church-yard. Of the European lime there are six varieties; but the most valuable, and the one which is most frequently met with, is the common lime

tree. It is a tall upright tree, with smooth spreading branches, thickly clothed with alternate heart-shaped, smooth, serrate leaves, pointed at the ends, of a very cheerful green. The flowers are of a yellowish colour, delightfully fragrant, especially at night, growing in clusters of four or five together, and blowing in July. These flowers are very agreeable to the bees, and it is said that the honey they extract from them is the finest ; but this seems to be rather a matter of doubt.

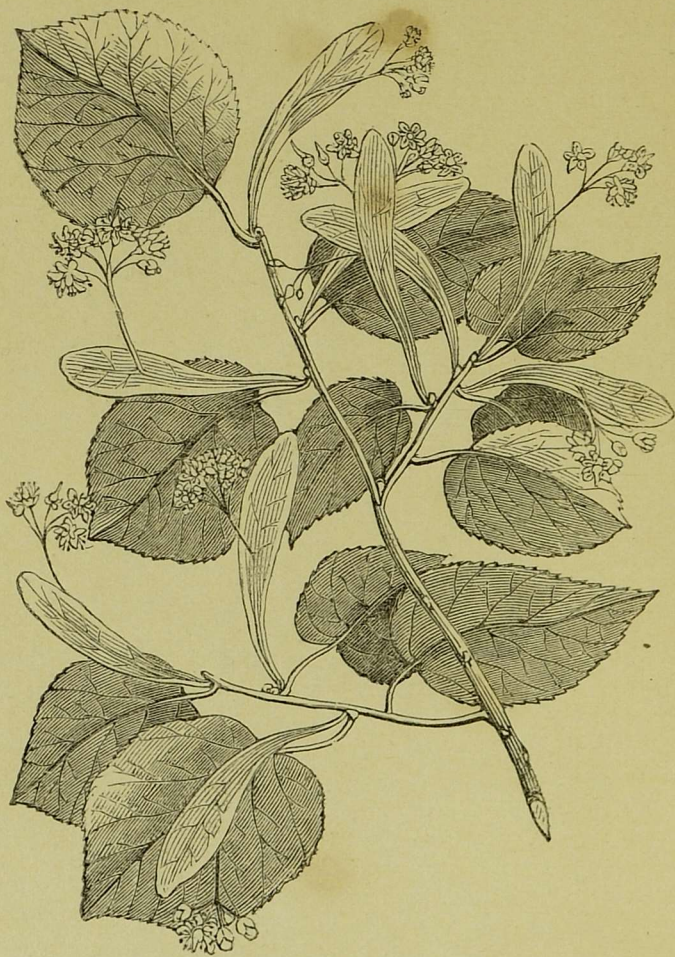
“ The lime bears the smoke of cities better than any other tall-growing forest tree ; and for this reason the shaded walks about the cities on the Continent, more particularly in Germany, are planted with it. It has other advantages ; the trunk is smooth ; the leaves are of a most beautifully delicate green ; the flowers, as I before told you, throw out a very delightful fragrance ; and it is not so liable to become unsightly, from wounds



LIME, or LINDEN.

[19—82]





LIME, or LINDEN. Leaves and Flowers.

and decayed branches, as almost any other tree. But its leaves come late in the spring, and they begin to fall off early,—so early sometimes as the month of August.

“The lime grows in Russia more abundantly than any other tree, with the exception of the birch; and what the birch is to the Norwegian peasant, the lime is to the peasant of Russia. The thick bark is made into baskets for carriages and sledges, into boxes and trunks, and helps to roof their cottages. Of the inner bark are made mats, many of which they export; the rind of the young shoots they braid into shoes. The wood is sawn into boards, wrought up into canoes, and burned into potashes.

“The lime will grow to a considerable size, and there are several on record remarkable for their magnitude. There is one spoken of, in Switzerland, forming a bower with its branches, capable

of containing three hundred men sitting at ease. It has a fountain, set about with many tables, formed only of the boughs, to which they ascend by steps, all kept so accurately and so very thick, that the sun never looks into it. But this is nothing to the prodigious lime of Neustadt, in the Duchy of Wirtemberg, Germany, which is so large, that even the city itself receives a denomination from it, being called by the Germans, 'Neustadt an der grossen Linden,'—Neustadt by the great lime tree. The circumference of the trunk is twenty-seven feet four inches. One mentioned by Sir Thomas Brown, at Depeham, in Norfolk, measures, in the least part of the body, eight yards and a half, and about the roots, near the earth, sixteen yards; but this seems almost incredible.

“A lime tree at Yester, at one foot above the ground, measures about fourteen feet, and at six

feet up it is about twelve feet. There is a magnificent lime tree at Gordon Castle, the head of which spreads over a large extent of ground. Its trunk is of great magnitude, and the branches being supported by posts, form a most beautiful canopy of shade. We are told that the two first lime trees were planted in England about the year 1590, and are still growing at Halsted in Kent. Dr. Walker thinks it more probable that the tree was introduced into England by the Romans, but that it does not appear to have been planted in Scotland before the reign of Charles II. The oldest and largest in Scotland are those at Taymouth and Inverary. The lime at Cobham Park measures above twenty-eight feet in circumference, and is ninety-one feet high, and is likely to increase in size for many years."

"Is the lime applied to many useful purposes, Uncle Ben?" said Thomas.

“Yes,” replied his Uncle, “although a soft and weak timber, the lime is very valuable. It is delicately white, and of a uniform colour, and therefore it is admirably adapted for all light works that are to be partially painted, and then varnished. Though it be very close in the grain, it blunts the tool less than any other timber; and as it has the same property as maple wood, of not warping, and even in a higher degree, it is used for cutting-boards and for the keys of musical instruments. It is used by printers for the large letters on placards. It also stands the tool well, and is very appropriately called ‘the carver’s tree,’ being used by the carvers and gilders for most parts of their wooden ornaments. At iron foundries, the ornaments for the fronts of stoves and other purposes, are all first cut in lime-tree, and some of them are moulded from the carving, though casts are more usually taken in lead, as

being more durable, and admitting of a smoother surface. Many very exquisite carvings, with which Gibbons ornamented so many of the palaces and churches in England, in the time of Charles II., are all executed in lime-tree. Lime, though softer and more easily cut than beech or maple, is not so much affected either by the worm or by dry-rot."

"What is the dry-rot, Uncle Ben?" said Frank.

"It is caused by a small beetle, which worms itself into the wood by circuitous passages, eating its way as it travels; this, by admitting the air into the heart of the timber, produces premature decay.

"The wood of the lime burns to a very good charcoal for gunpowder, and for designers, who use it in place of chalk. It is used by turners, carvers, and leather-cutters. In some countries, the leaves are dried as a winter food for sheep and

goats. Cows eat them in the autumn, but they give a bad taste to the milk. The bark of this tree is an article of commerce. As the trunk of the tree is tall and free from knots, the bark may be stripped off in long pieces. These are macerated in water till the fibrous layers separate ; and are then divided into narrow slips, called *bast*, which, in the northern parts of Europe, are plaited into ropes, and worked into mats. The mats, in which flax and hemp are imported from the Baltic, and which, in this country, are in constant use by gardeners for covering plants from the weather and tying them up, and also for market and tool baskets, are made of *bast*, or the bark of the lime-tree. Though the lime be not so great a favourite in this country as it was in former times, it may very fairly be doubted whether the poplars, and other soft fast-growing trees that have been substituted for it, are a change for the better. The

lime is not a tree for bleak and cold lands. It thrives best in rich loam, and in warm and rather moist situations ; and though the average age to which it will grow has not been accurately determined, yet, from the healthy nature of the tree, and the great size that it has arrived at, it must be considerable—upwards of a hundred years.

“ The lime has been spoken of by many of our poets ; Cowper says,—

‘ Here the gray smooth trunks
Of ash, or lime, or beech, distinctly shine
Within the twilight of their distant shades ;
There, lost behind a rising ground, the wood
Seems sunk, and shortened to its topmost boughs.”

“ What are those people gathering from that large tree ?” said Thomas.

“ I dare say they are gathering walnuts, though I cannot see at this distance. Wait till we get a little nearer. Now I see they are doing so, and

if you have no objection I will give you some account of the walnut-tree.'

"Oh yes, do if you please, Uncle Ben," said Harry.

"First I will recite you a piece of poetry on it.

'The walnut, then, approached, more large and tall,
His fruit, we a nut but some an acorn call :
Jove's acorn, which does no small praise confess ;
To have call'd it man's ambrosia had been best.
Nor can this head-like nut, shaped like the brain,
Within, be said that form by change to gain,
Or caryon called by learned Greeks in vain ;
For membranes soft as silk her kernel bind,
Whereof the inmost is of tenderest kind,
Like those which on the brain of man we find ;
All which are in a seam-joined shell enclosed ;
Which of this brain the skull may be supposed :
This very skull envelop'd is again
In a green coat, his pericranium :
Lastly, that no objection may remain,
To thwart her near alliance to the brain,
She nourishes the hair, remembering how
Herself, deformed, without her leaves does show ;
On barren scalps she makes fresh honours grow.

Her timber is for various uses good ;
The carver she supplies with lasting wood :
She makes the painter's fading colours last :
A table she affords us and repast ;
E'en while we feast, her oil our lamps supplies ;
The rankest poison by her virtue dies,
The mad dog's foam, and taint of raging skies.
The Pontic king, who lived where poisons grew,
Skilful in antidotes, her virtues knew ;
Yet envious fates, that still with merit strive,
And men, ungrateful, from the orchard drive
This sovereign plant ; excluded from the field,
Unless some useless nook a station yield,
Defenceless in the common road she stands,
Exposed to restless war of vulgar hands :
By neighbouring clowns and passing rabble torn,
Battered with stones by boys, and left forlorn.' "

" What a good memory you have, Uncle Ben," said Thomas ; " is it true that the walnut has all the qualities you have named ?"

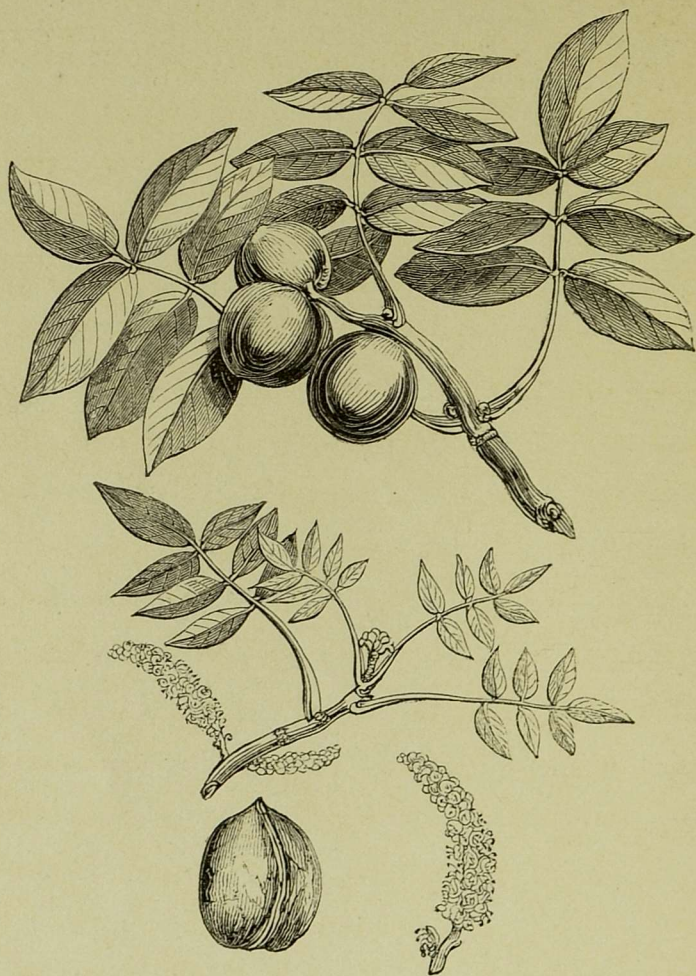
" You will see," replied his uncle, " as I proceed with my description, if you are attentive. The fruit they are now so busy gathering is not ripe, but

is green, and fit only for pickling, for which purpose vast quantities are used. As you perceive, it is a large lofty tree, with strong spreading branches. The leaves are large, smooth, and shining. The blossoms begin to open about the middle of April, and are in full bloom by the middle of May, at which time the leaves are entirely opened. The fruit does not come to maturity in the northern parts of England, and in the southern parts is apt to be injured by the frosts of spring. In many parts of this country it thrives well as a tree, and wherever it thrives it is valuable. An oil is obtained from the nuts, which is very useful to artists in light delicate colours, and which answers the same medicinal purposes as oil of almonds. In many places it is used instead of butter, both to eat and for frying, and is burned in lamps. The green husks, which surround the nuts, furnish a good dark yellow dye by boiling. This tree, being



WALNUT.

[21-92]



WALNUT. Leaves, Catkins, and Nuts.

wounded in the spring, yields a juice, of which a kind of wine is made. We are informed that one of the sovereigns of Europe drank a great quantity of this juice daily, and derived great benefit from it. When the leaves and recent husks, in their green state, are macerated in warm water, the extract, which is very bitter, is used to destroy insects. The quantity of oil in fresh walnuts is very considerable, being about equal to half the weight of the kernels.

“A walnut-tree, growing before the front of Kinross House, in Kinross-shire, in September, 1796, measured nine feet six inches in girth. This tree seems to have been planted about the year 1684. It is, probably, the oldest walnut tree in Scotland.

“But we must be moving onwards in our ramble; suppose we take this shady lane.”

“Is the wood of the walnut much used in this country?” said Harry.

“The use of the walnut tree for furniture has been superseded by mahogany and other foreign timbers ; yet, still, there is one use to which the walnut tree is applied in preference to any other timber, and this use demands the qualities of beauty, durability, and strength : walnut tree is employed for the stocks of all kinds of fire-arms. Before it is used, however, it should be well seasoned, or even baked ; as, when recently cut, it is apt to shrink, a disadvantage which is completely avoided by seasoning.

“The walnut grows rapidly, till it attains a considerable size, and is ever valuable as timber. The absolute duration of the tree has not been ascertained ; but, probably, the most profitable age for cutting it is about fifty or sixty years. The great demand for musket and pistol stocks, during the late war, thinned England of its walnut trees ; and the deficiency should be made up

by fresh planting. At that period, the timber was so much in demand, that a sound fine tree has frequently been sold for six hundred pounds when cut out into stocks.

“ The shade of the walnut tree, especially the species called the black walnut, is considered particularly unwholesome; and if planted in an orchard, will kill all the apple trees in its neighbourhood. It has been said:—

‘ Or walnut, whose malignant touch impairs
All generous fruits.’

“ I could mention several varieties of the common walnut; as the thick-shelled, which affords the best timber; and the thin-shelled, which bears the greatest quantity of fruit, and yields the most oil.

“ The branches of the walnut tree assume a form very picturesque and beautiful. In May, the warm hue of its foliage makes a pleasing con-

trast with other trees ; but it opens its leaves late, and drops them early.

“ In favourable situations, the white walnut, or hickery, which is a native of North America, grows well in England. The trunk of this tree rises to a considerable height, of nearly uniform thickness, and as straight as a line. It is very probable that, if the tree were more generally cultivated, it would make one of the most valuable in this country. Hickery is very tough and elastic, and therefore it answers remarkably well for fishing-rods, the shafts and poles of carriages, and other purposes where a slender substance of timber has to resist sudden jerks or strains.

“ Now let us make haste ; there is a storm coming on ; we will ask for shelter in the cottage by the mill.”

“ Did you see how it lightened, Uncle Ben ?” said Frank ; “ and the rain is coming down in very

large drops ; had we not better shelter under that large oak tree ; it will keep the rain off ? ”

“ Indeed,” said his uncle, “ it would be highly dangerous for us to do so during a thunder-storm. Are you not aware that the tallest objects first attract the lightning, and we might be struck dead in an instant ? I hope you will remember this, and never attempt to shelter under any tree ; it is far better to be a little wet, than to be in danger of your life. We shall be at the cottage you see directly, where we shall be safe.”

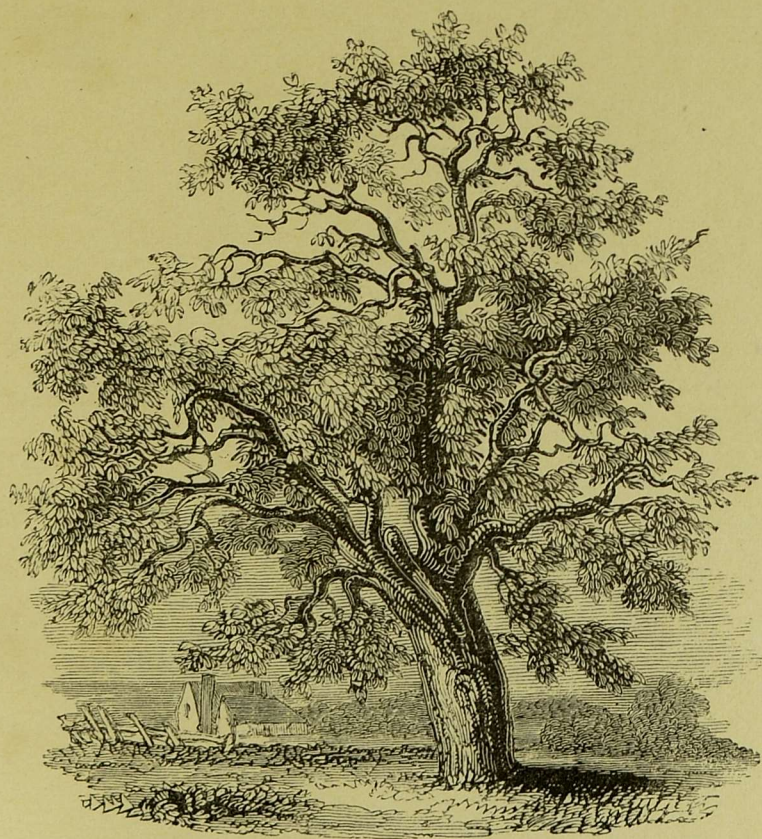
“ Now we are here,” said Harry ; “ the old dame’s parlour is very pleasantly situated. Pray what tree is that standing in the middle of the garden, which seems so thickly covered with leaves ? ”

“ It is a mulberry tree ; of which there are five species sufficiently hardy to bear our climate without protection ; yet, notwithstanding their great

beauty and utility, and the pains that have been taken to promote their cultivation in this country, they are rarely seen among us; and I am rather surprised to see this one in the garden.

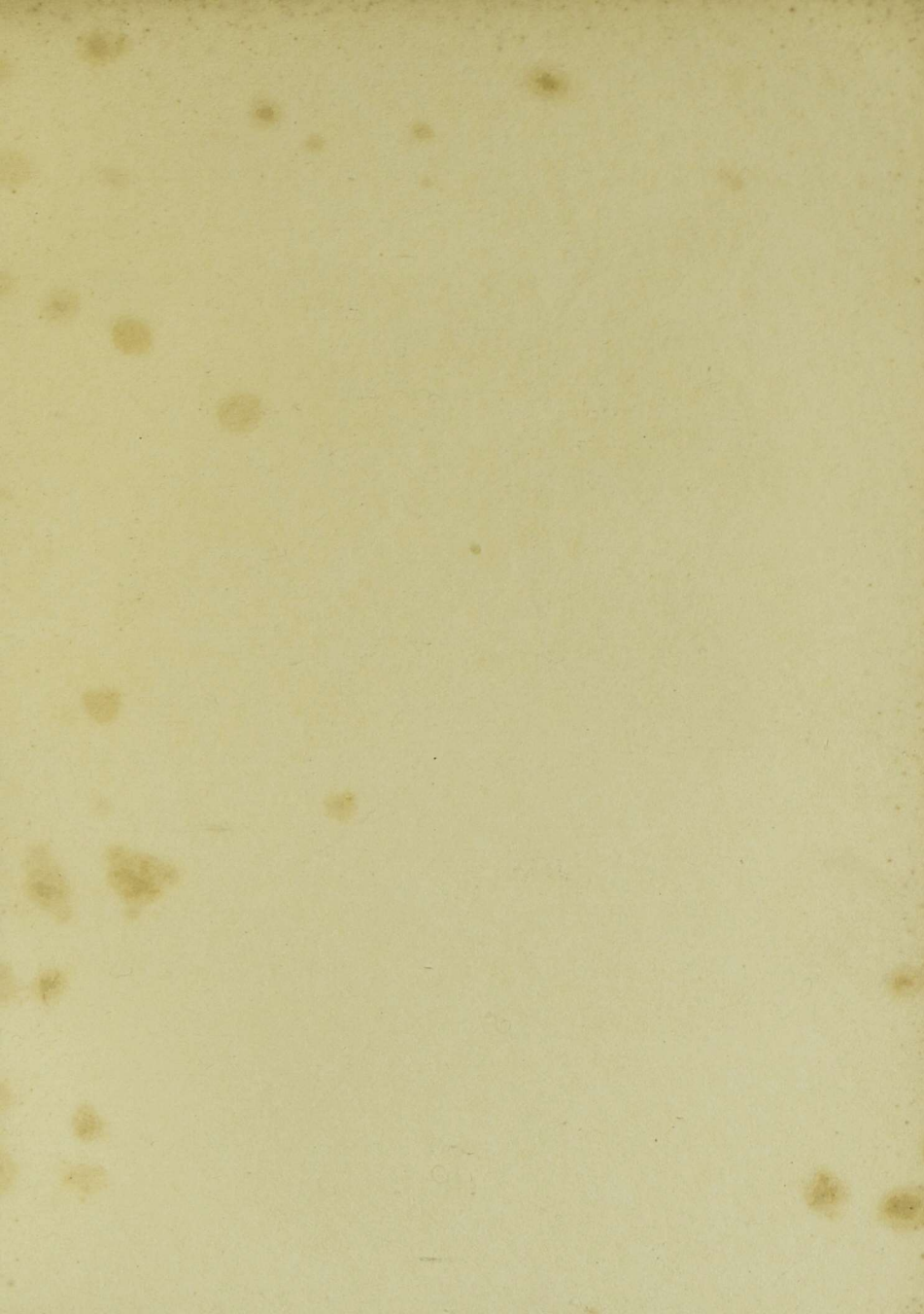
“The black mulberry is the largest and hardiest tree of the species: the fruit is a blackish red, and has much more taste than that of any other. The timber is durable: it will last as long in water as the best oak; and the bark is tough and fibrous, and may be made into strong and durable mats and baskets.

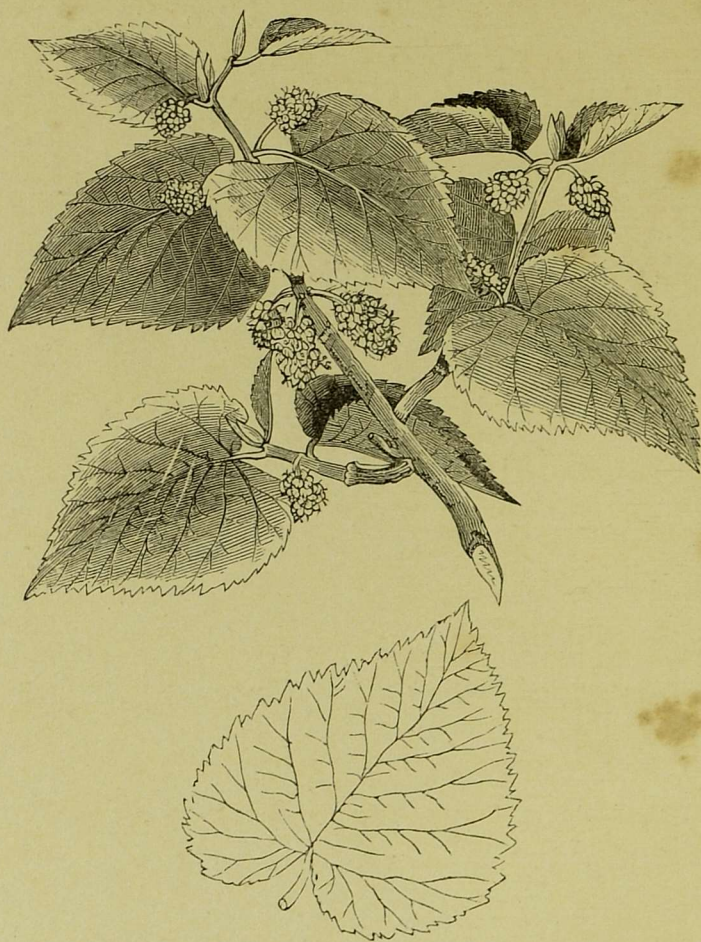
“All the species of the mulberry are used in feeding silk-worms; for which purpose, nothing appears yet to have been discovered so valuable as mulberry leaves. The rearing of silk-worms, and the manufacture of silk, are said to have been introduced into this part of the world in the sixth century. About the year 550, two monks, natives of Persia, while employed as missionaries to the



BLACK MULBERRY.

[23-98]





BLACK MULBERRY. Leaves and Berries.

Christian churches in India, are said to have penetrated as far as China, where they acquired a knowledge of the rearing of the silk-worm, and the working of silk. Upon their return, they explained to the Greek emperor at Constantinople the nature and importance of those operations, and undertook to bring to that capital as many silk-worms as should suffice for establishing and supplying the manufacture. They were immediately sent off, and soon returned with the eggs of the silk-worm, concealed and preserved in a hollow cane: these eggs were hatched by artificial heat. The attempt succeeded; the worms, or grubs, were fed with the leaves of wild mulberry trees; they multiplied rapidly; and the produce of their labours proved to be as good silk as that which had been made in China."

"Can you give us a description of the manner in which the silk is formed?" said Thomas.

“The animal by which silk is originally made, is a species of moth. When perfect, or in the winged state, it is of a whitish colour, with a pale-brown line across the upper wings, and displays in itself none of that lustre which its labours produce. The caterpillar—in which state it spins the silk, and is thence called the *silk-worm*,—is, when full-grown, about three quarters of an inch long, of a yellowish-grey colour. It feeds very voraciously on the leaves of all mulberry trees indiscriminately; and it will also feed upon lettuce, and some other plants. The silk-worm remains in the caterpillar, or larva state, about six weeks, changing its skin four times during that period, and ceasing to feed a short time before each change. When grown to its full size, it eats no more; and, choosing a convenient place, begins to envelop itself in silken fibres; and it continues this operation till it has spun an oval case, or ball of yellowish silk, about

the size of a pigeon's egg, in which it remains as a chrysalis for about fifteen days; at the end of which, it gnaws through the end of the silken ball, and comes out a winged moth, to deposit its eggs for a fresh generation, and then die. Those who cultivate the worm for its silk, do not suffer it to reach this last stage; because the silken fibre, which is all in one piece, would be cut into short bits by the opening where the moth escapes. When the whole quantity of silk is formed, they destroy the chrysalis by means of heat.

“ When the leaves of the mulberry fail, or are deficient, in China, those of the ash are said to make a good substitute. It is stated, that the Chinese dry the mulberry leaves in the sun, and keep them in close-stopped vessels, for the food of the silk-worm, if it be produced before the young leaves of the tree are ready for its support. When cultivated for its fruit, the mulberry, unlike most

other fruit-trees, produces fruit in greater abundance, and of larger size, as it gets older ; and as its dense and dark foliage forms a fine contrast with trees of more airy form and lighter hue, it is a very ornamental tree.

“ The mulberry tree is an excellent guide to the gardener, since the appearance of its leaves is an infallible sign that the severity of the season is over. This has been remarked by a poet, who says—

‘ But cautiously the mulberry did move,
And first the temper of the skies would prove ;
What sign the sun was in ; and if she might
Give credit yet to winter’s seeming flight.
She dares not venture on his first retreat,
Nor trust her fruit or leaves to doubtful heat ;
Her ready sap within her bark confines,
Till she of settled warmth has certain signs :
Then, making rich amends for the delay,
With sudden haste she dons her green array.
In two short months her purple fruit appears,
And of two lovers slain, the tincture wears.
Her fruit is rich ; but she doth leaves produce,
Of far surpassing worth, and noble use.’

“ King James the First, excited by the success of Henry the Fourth of France, was very anxious to introduce the culture of silk into this country ; and in the year 1608, caused a letter of his own writing to be sent to the lord lieutenant of every county, holding forth the example of France ; observing, that from the experience of many private persons who had bred silk-worms for amusement, there appeared no reason that they might not be nourished and reared in England, if provision was made for planting mulberry trees ; and desired those whom he addressed, to persuade such persons as were able, to buy and distribute in the country ten thousand mulberry plants, which were to be delivered in London at the rate of three-farthings each. He likewise caused printed instructions to be published for planting mulberry trees, and for rearing silk-worms. His majesty’s endeavours did not, however, succeed to any extent.

“At the time when King James so zealously recommended the cultivation of mulberry trees, Shakspeare planted one in his garden at New Place, Stratford, which went by the name of ‘Shakspeare’s Mulberry Tree.’ This tree was unfortunately felled by the Rev. Francis Gastrell, in 1756. It was purchased by Mr. Thomas Sharp, a watchmaker, of Stratford-on-Avon, who turned it much to his own advantage by converting it into snuff-boxes, toothpick-cases, &c., which he sold.

“It is quite fine again, I declare. Now, your nearest way is across the hay-fields; mine, along the lane; so we part. I am glad to see your attention still kept up; and I dare say you will look on with pleasure to our next ramble? Good-bye, boys.”

“O yes, that we shall. Good-day, Uncle Ben.”

RAMBLE FIFTH.

—•—

UNCLE BEN TELLS THE BOYS ABOUT THE POPLAR, THE ASPEN, THE OSIER, THE WILLOW, OF DIFFERENT KINDS OF FIR TREES, AND PINES.

“WHAT! here again, boys! Why, you are soon come for another ramble? Call old Tray, will you, out of the yard, as we shall be going by the river; and he, poor old dog, will enjoy a swim.”

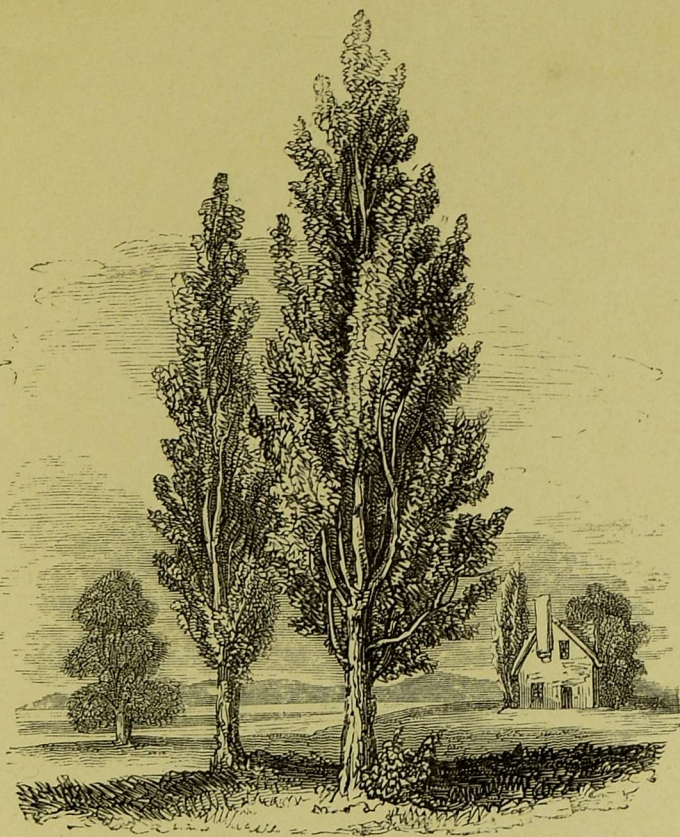
“Here he is, Uncle Ben;—down, sir! down! He is so overjoyed, he scarcely knows what to do.”

“Yes; he has not had a run for a long time. Presently, I shall give you some account of the willow and the osier; but first, of the poplar. These trees at the gate are poplars:—

‘ The poplar there
Shoots up its spire, and shakes its leaves i’ the sun
Fantastical, while round its slender base
Rambles the sweet-breathed woodbine.’

“ It is a native of Europe, grows in woods and hedges, and takes delight in the neighbourhoods of rivers and brooks.

“ There are about fifteen species of the poplar ; but it is necessary to mention only two as timber trees : the white, or spreading poplar ; and the Lombardy poplar, which is spire-shaped, has its branches at very small angles with the trunk, and runs up to a great height. The poplar grows very rapidly. In favourable situations, it will make shoots three inches in diameter, and sixteen feet long, in the course of a single season. The loppings of the poplar are not very inflammable ; and are, therefore, superior to those of the elm, and many other trees, for heating ovens, and for



WHITE POPLAR.

[25—106]



WHITE POPLAR. Leaves, Flowers, and Catkins.

other purposes in which the loppings of trees are used.

“ The black poplar has a long naked trunk, and a handsome regular head ; the bark is ash-coloured ; the leaves are smooth on both sides, of a light-green colour, and slightly notched at their edges. It is of quick growth ; and, in moist situations, will rise to a great height, throwing out innumerable suckers from the roots. The bark being light, like cork, serves to support the nets of fishermen. The wood is light, soft, and not apt to splinter : it is used by the turner ; and, in particular, by the bellows-maker, being very close, yet light. It is considered very excellent for flooring, on account of its slowness in taking fire, which is such, that it is said that the flames of a house on fire were stopped when they came to that part where this timber had been used. This species flourishes in Holland, where it is

made into wooden shoes, and other articles. The timber is of nearly the same quality as that of the white poplar—perhaps, a little better.

“A black poplar, at Alloa House, in Clackmannanshire, in 1792, measured thirteen feet six inches in girth, at a height from the ground of between three and four feet. The black poplar at Bury St. Edmund’s is ninety feet high, and fifteen feet in circumference at one yard from the ground. The trunk rises forty-five feet before it divides, and then it throws out a profusion of branches. It is a very graceful and beautiful tree.

“The wood of the white poplar is soft, and far from durable; but it is not apt either to swell or shrink, or to warp; and it is very light, so that it is employed for butchers’ trays, hogs’-troughs, and other articles, in which lightness and cheapness are preferred to durability. It is possible, in consequence of the rapidity with which the

poplar grows, and the ease with which it can be worked, that, on the spot where it is produced, it may be more economical for common household purposes, and for casks and packages for dry goods, than more durable timber. The seeds of the white poplar are surrounded with a sort of cotton, of which it has been attempted to manufacture paper, and even cloth; but no experiments upon it have proved successful.

“There is a species of the poplar called the aspen, which has a smooth green bark; but the most remarkable circumstance connected with this tree is, that the slightest wind causes all its leaves to shake from the top to the bottom; whence it has been called the ‘trembling poplar.’ This tree is of speedy growth, but impoverishes the land, and destroys the grass in its immediate neighbourhood. The wood is light, smooth, soft, and durable in the air. It is used for hoops, milk-

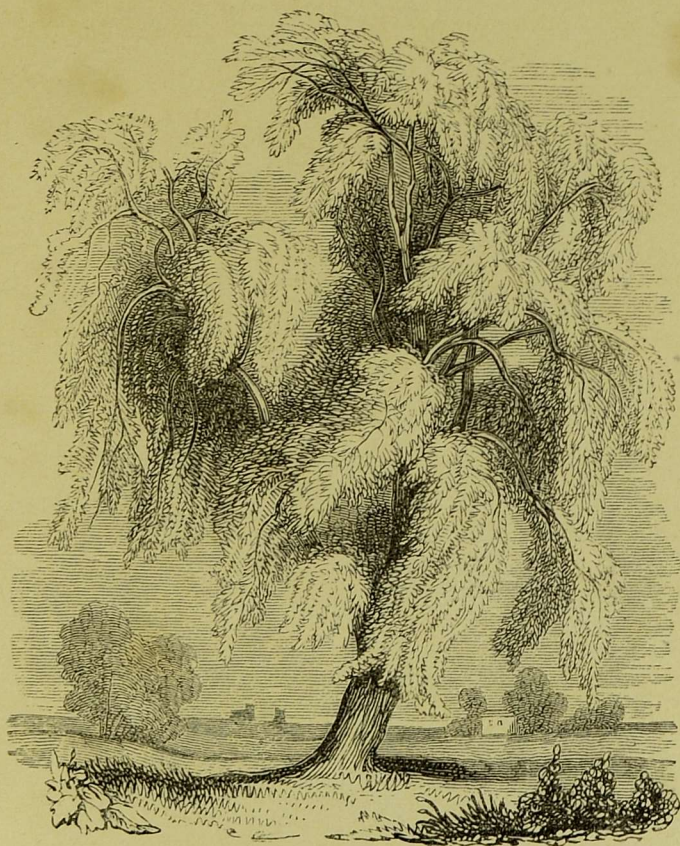
pails, clogs, pack-saddles, &c., and for fire-wood. The bark is the favourite food of beavers. The ceaseless motion of its leaves has been compared to a person under the influence of fear:—

‘ His hand did shake,
And tremble like a leaf of aspen green.’ ”

“ Uncle Ben, what are these people doing, who are sitting under the hedge in this field; they seem to be peeling some kind of twigs?”

“ They are taking the bark off osier-cuttings; which, when split, are woven into baskets. The osier is a species of the willow, and grows very rapidly. You see, by the bank of the river is an osier bed, where some men are busily employed in cutting the shoots: they are cut about once in three years, and are found very profitable.

“ There are in England about fifty varieties of the willow, which are all partial to moist situations. The common, or white willow, takes its



WILLOW.

[27-110]



WILLOW. Leaves and Catkins.

[28—111]

name from the white silken surface of the leaves on the under side. The bark is used to tan leather, and to dye yarn of a cinnamon colour. The bark of this willow has, in some cases, been found a good substitute for the Peruvian bark. The grey willow, or sallow, grows from six to twelve feet high. In many parts of England, children gather the flowering branches of this tree on Palm Sunday, and call them palms. With the bark, the inhabitants of the Highlands and the Hebrides tan leather. The wood, which is soft, white, and flexible, is made into handles for hatchets, spades, &c. It also furnishes shoemakers with their cutting-boards, and whetting-boards to smooth the edges of their knives upon.

“The famous and admired weeping willow, planted by Pope, which some time since was felled to the ground, came from Spain, inclosing a present for Lady Suffolk. Mr. Pope was in company

when the covering was taken off: he observed that the pieces of stick appeared as if they had some vegetation; and added, ‘Perhaps they may produce something we have not in England.’ Under this idea, he planted it in his garden, and it produced the willow tree which has given birth to so many others.

“A willow at Alderston, near Haddington, is thirteen feet in girth at three feet from the ground; and, at six feet from the ground, it measures fourteen feet round. The Abbot’s Willow, at Bury St. Edmund’s, stands on the bank of a small river, called the Lark, in the park of John Benjafield, Esq. It is seventy-five feet high; the stem is eighteen feet six inches in girth; it divides, in a very picturesque manner, into two large principal limbs, which are respectively fifteen and twelve feet in girth. It covers an area of two hundred and four feet in diameter.

“ The weeping willow is a native of the Levant ; but it thrives very well in England, if the situation be not too cold for it, and if it be near water. It runs to a considerable height ; and no tree can be more graceful on the margin of a lake or stream :—

‘ Shadowy trees, that lean
So elegantly o’er the water’s brim.’

“ Willows are in general quick of growth ; and if the accounts be correct, of the time of the introduction of this species into England, it must grow particularly fast. I know of one which was planted by a friend of mine, only fifteen years back, and it is now a fine tree, although exposed to the cold north winds.

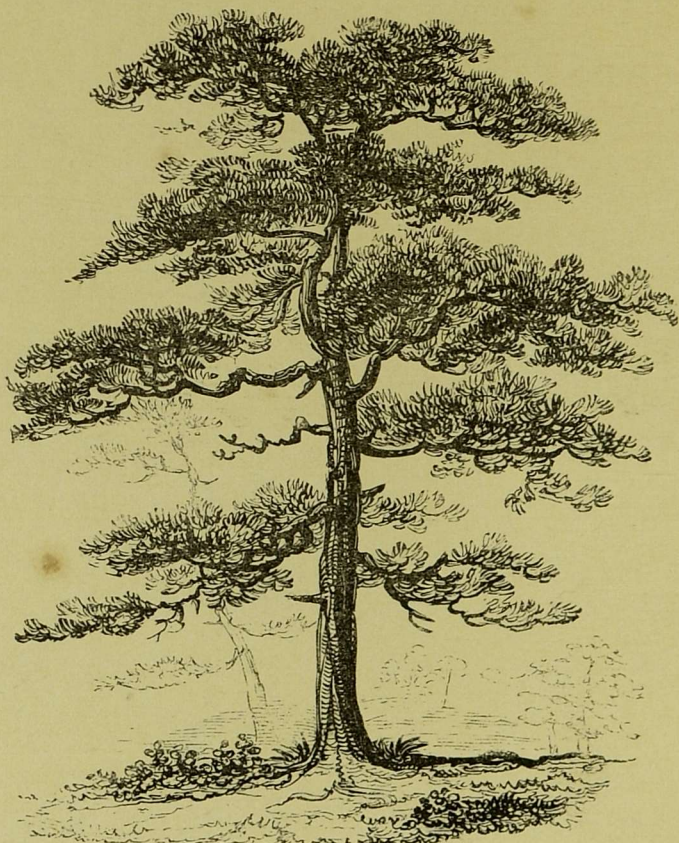
“ There is a fine weeping willow in a garden near the Paddington-end of the New Road, London ; and a most magnificent one in a garden on the banks of the Thames, just beyond Richmond-

bridge. Several arms of this tree are so large, that each of them would in itself form a fine tree. They are propped by a number of stout poles; and the tree appears in a flourishing condition. The weeping willow is most appropriately named; for, in addition to the drooping appearance of its branches, it is common to see little drops of water which stand like fallen tears upon the leaves.

“The timber of the willow is applicable to many purposes, similar to those for which the poplar is employed; and, in toughness, it is far superior. The ancient Britons sometimes made their boats of basket-work of willow, and covered them with the skins of animals: they were remarkably light and buoyant.

“I think I have now told you all I know of the willow; so we will give poor Tray a swim, and then proceed on our journey. Here, Tray, boy; in with you! See how he enjoys himself. Take





SCOTCH FIR.

[29—115]

care, when he comes out, or he will sprinkle you. Off, sir! shake yourself. Fine old fellow!"

"Pray send him in again, uncle," said Harry.

"Not now—some other time: too much will do him harm, as he is not used to it.

"We will now have a little conversation on the different kinds of fir trees; and as this is a very important description of timber, generally known by the name of *deal*, I should wish you to pay great attention.

"The Scotch fir tree, so called from its being a native of different parts of Scotland, flourishes best in a poor sandy soil. In groves, the trunk shoots up tall and naked; in more open situations, it is branched. On rocks or bogs, it seldom grows to a large size. In black soil it becomes diseased; and in chalky land it dies. The leaves are of a greyish colour, and twisted. The cones, which you have frequently observed

lying on the ground, are small and pyramidal. In a favourable soil, it will grow some eighty feet high. Its timber varies in colour, and bears the name of white, red, or yellow deal. It is resinous and durable, and applied to purposes innumerable. The tallest afford masts for our navy. Pitch, tar, turpentine, &c., are obtained from all descriptions of fir trees.

“A celebrated traveller in Scotland says:—
‘Among the better sort of people, tallow candles, and oil lamps, as well as wax candles, are sometimes used; but as it is not only cheaper, but gives a better light, many, upon ordinary occasions, use only pieces of fir, split thin, from the roots of trees found in the mosses; which, from the great quantity of resinous and inflammable matter they contain, give excellent light. It is the business of the young people in the house to prepare and hold these candles, one of which,

affording nearly as much light as a torch, generally serves all in any one room of the house. Agreeably to this notion, when a rich man, in London, lately, was extolling the candlesticks on the table, which were of massy silver, elegantly chased, a gentleman from Strathspey being present, said, that these were not so valuable as the candlesticks in many parts of the Highlands of Scotland. A thousand guineas were immediately laid, that there were not better, nor more valuable than those, in all the Highlands. The gentleman who held the bet, was allowed a sufficient time for the candlesticks to be brought to London for inspection, and proof that they had been used in the Highlands previously to the staking of the thousand guineas. When the evening of the day arrived that the Highland candlesticks were to be inspected, six handsome young men, in elegant Highland dresses, unexpectedly entered the room

with blazing torches of fir in their hands. It was universally agreed that these were the candlesticks used in the Highlands, and those referred to when the bet was laid; and also, that they were the most valuable. The gentleman, therefore, who proposed it, lost the bet.'

"The chief consumption of *deal* now, is for the interior work of our houses, and some articles of household furniture. It is a smooth wood to polish; and is, therefore, thought good for gilding. It takes black as well as the wood of the pear tree; and is approved for carving, the grain being easy to work. It is thought to be more easily wrought, and to take glue better than any other wood. Its bark will tan leather."

"Does this tree grow nowhere but in Scotland, Uncle Ben?"

"It is common in most parts of Europe, particularly the northern parts. The inhabitants of

Kamschatka and Lapland convert the bark into bread. They carefully strip off the outer bark from the finest trees in the spring, and collect the soft white interior bark, which they dry in the shade. To render it fit for use, they first toast it at the fire; then grind it; and after steeping the flour in warm water, to destroy the resinous taste, they make it into thin cakes, and bake them. The Swedish boys will often peel off this inner bark, and eat it raw. These hard-faring peasants of the North are often reduced to such food, and use the bark of other trees, as I have before told you, for the same purpose. How thankful, then, ought we to be, that we are placed in a country surrounded by so many comforts, and where those who are industrious scarcely know the name of want!"

"We ought, indeed, Uncle Ben," said Thomas.
"I had no idea that there was so much that is

interesting connected with the fir: can you tell us any more about it?"

"Not of the Scotch fir, but there are several other kinds which we will talk of as we walk homeward. Call Tray; I am afraid we shall lose him. We must make haste, or it will be dark before we reach home."

"Here he comes, Uncle Ben. Good dog; don't go away again, sir."

"The silver fir," continued Uncle Ben, "is a noble upright tree; the branches are not very numerous; the bark is smooth; the upper surface of the leaves is of a fine green, the under side is marked with two lines of white, from which this tree takes its name. The cones are large. It is a native of the south of Europe and the Levant, the silver firs upon Mount Olympus being the most magnificent in the world. It does not grow in bleak situations like the Scotch fir, requiring



SILVER FIR.

[30—120]





SILVER FIR. Foliage and Apples.

a richer soil and warmer climate. In Ireland, it has been observed, that no tree grows so speedily to so large a size as the silver fir. It is considered a very good timber for boat-building. A gentleman in Hampshire floored his library with silver fir fresh felled, and the boards did not contract in the least; still the timber which it produces is soft and not durable, and therefore not well adapted for general purposes. It has been introduced into this country as an ornamental tree for more than a century.

“Another kind of fir, very similar to the silver fir, is the balm of Gilead fir, which is a most beautiful tree; some consider it the handsomest of the firs while young. The only difference between this and the silver fir is, that the leaves are wider and blunter, and the cones are not so long. A very fine turpentine, called Canada Balsam, is obtained from it, which is sold for the balm of

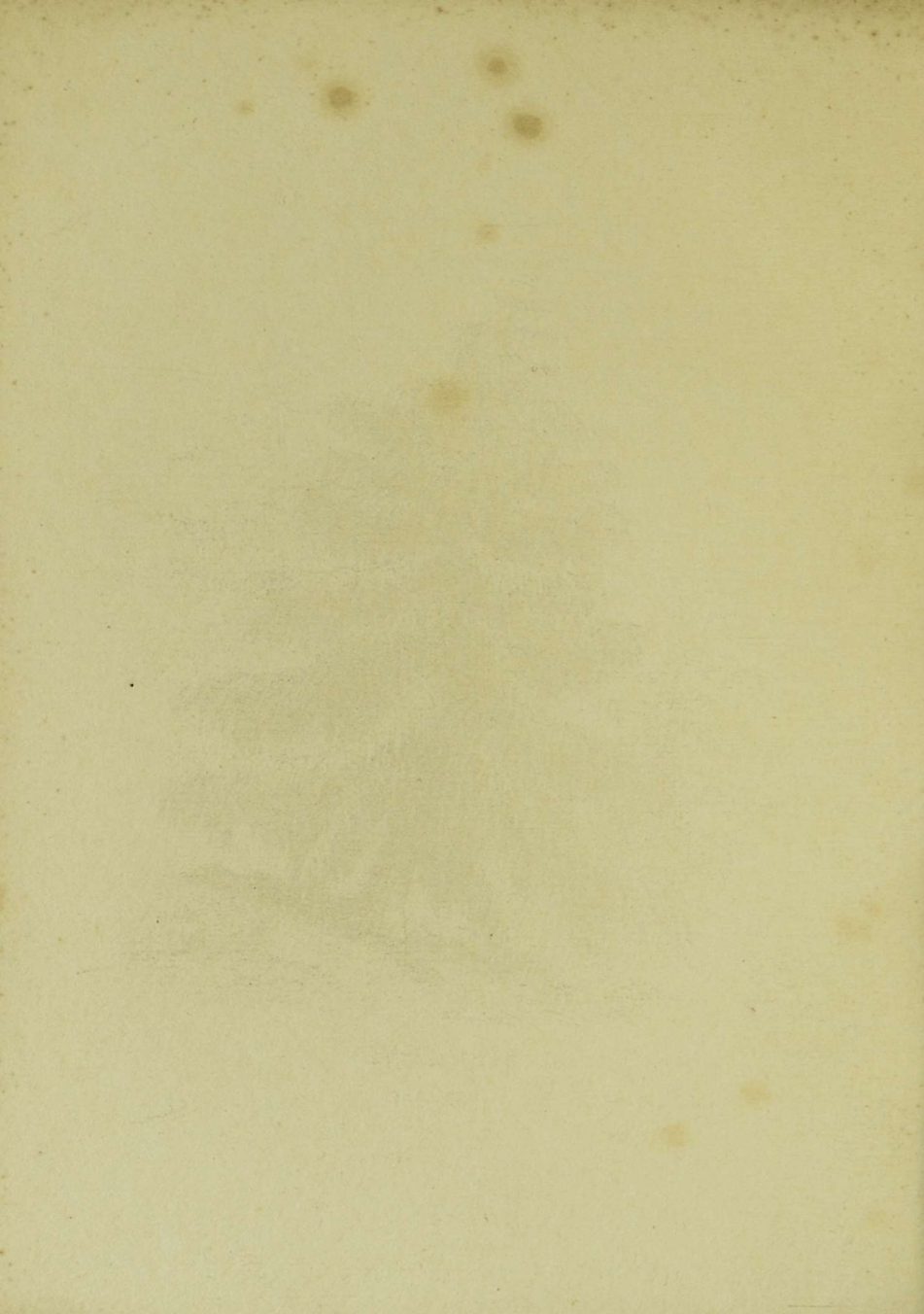
Gilead. It is a native of America ; but although it has been in this country for more than a century and a half, the only place where it flourishes is Woburn Abbey.

“ The Norway spruce fir is the loftiest of all European trees. Though it is never seen so high in this country, it has been found in Norway from one hundred and fifty to two hundred feet in height, with a very straight trunk, and throwing out its branches so as to form an elegant pyramid. It has been brought to England upwards of a century ; and as it grows rapidly, forms excellent shelter, has a noble appearance, and is always in leaf. It has been introduced more generally than the quality of its timber deserves ; it being soft, and far from durable. There are two varieties of the Norway spruce fir, the white and the red, so called from the colour of the cones, both affording *white deal*.”



SPRUCE FIR.

[32—122]





SPRUCE FIR. Foliage and Apples.

“Is not tar made from the fir tree, Uncle Ben?” said Frank.

“Yes, it is obtained from the roots in this manner. On the top of a bank a hole is dug, and the roots of the fir, together with logs of the same, are let into the cavity. The whole is then covered with turf, which, by means of a heavy wooden mallet and a wooden stamper, worked by two men, is beaten down, and rendered as firm as possible. The wood being kindled, it burns slowly without flame, and the tar runs out through a spout, which projects through the side of the bank. Barrels are placed to collect the fluid, which, as fast as they fill, are bunged and are then ready for exportation.

“The pine, which is nearly related to the fir, has several species, and is used principally for masts of ships.

“The pine-aster, or cluster pine, grows very large, and extends its branches to a considerable

distance : the young trees are well clothed, but age destroys the twigs, and gives the branches a naked appearance. It grows on the mountains of Italy and the south of France.

“The Weymouth pine, called in North America, its native country, the white pine tree, is one of the tallest species, frequently attaining the height of one hundred feet in its native soil. The bark is smooth and delicate. The wood is esteemed for the masts of ships ; and, in the reign of Queen Anne, laws were passed for the preservation of these trees, and to encourage their cultivation in North America, which then belonged to England. It is called the Weymouth pine, from the first tree of this species in England having been planted in the grounds of Lord Weymouth. It was once called the New England Pine.

“There is a beautiful grove of pines on Hampstead Heath, near London, which have been raised

from seeds of the stone pine, brought from Ravenna. It is chiefly cultivated for its beauty, and for the kernels of the cones, which, though slightly flavoured with turpentine, are as sweet as almonds. But these cones never come to perfection in England, as they require a warmer climate to ripen them.

“ The Siberian stone pine, or evergreen larch, is lofty and straight ; the leaves are like those of the common stone pine, but the cones are longer, and their scales looser. It grows higher up the Alps than any other pine, even higher than the larch will grow. The timber of this tree is soft, and very fit for the carver. The peasants of the Tyrol, where it abounds, make of it curious carved works, which they dispose of among the common people in Switzerland, who are fond of the resinous smell which the wood possesses. The kernels of the cone are good to eat, and sometimes form a part

of a Swiss dessert ; they yield, too, an abundance of oil.

“ Travellers inform us, that in the large pine forests in Norway, &c., there are frequent fires, which sometimes spread far. Some have supposed these fires to have been kindled by lightning, but it is very clearly and simply accounted for by the custom the peasants have of throwing out among the trees the contents of an old tobacco pipe, which rekindle in the air, and quickly catches these resinous trees.”

“ Well, Uncle Ben,” said Harry, “ I am sure we cannot be too much obliged to you for your kindness: you constantly tell us something we did not know before.”

“ So I expected,” replied his uncle, “ or you may depend upon it I should not have taken so much trouble in explaining these things to you. But now we must again separate, and before our

next ramble I shall have refreshed my memory with accounts of some other trees, and amongst them the larch. Good bye, boys."

"Why, I have never heard of that tree," said Frank.

"Perhaps not, but still you will find it to be a very serviceable one. Again, boys, good-bye."

"Good-bye, Uncle Ben."

RAMBLE SIXTH.

UNCLE BEN TELLS THE BOYS SOMETHING ABOUT THE LARCH
AND THE DIFFERENT KINDS OF CEDARS.

“WHEN we last parted,” said Uncle Ben to his nephews, who had been reminding him of his promise to give them some account of the larch, “I told you that this was a very useful tree. It is used for gates, palings, posts of all kinds that are inserted either in the earth or in water, wooden buildings, many agricultural implements, cottage furniture, bridges and gangways, carriages for transporting stones, and all hard and rough materials, barrows for builders and road-makers, lighters, fenders, and embanking piles, lock and



LARCH.

[34—128]



LARCH. Foliage, Catkins; unmature and perfect Cone; Scale opened, showing the Seeds.

dock-gates for canals and harbours, coal and lime-waggon, vessels for carrying lime, pit-props, and hop-poles of the smaller branches. For all these purposes larch is considerably cheaper than any other timber now in use, and will last three times as long.

“ Venice turpentine is obtained from the larch, by boring a hole with an auger about two feet above the ground, till it reaches half way to the centre of the tree; into this hole is inserted a small pipe, through which the turpentine flows into vessels placed for the purpose. This is continued from the end of May to the end of September, when the turpentine is pressed through a cloth to purify it. It is not thought worth while to begin to collect the turpentine from a tree until it has attained the size of a foot in diameter; and from that time for forty or fifty years, if the tree continues in vigour, it will yield seven or eight pounds of turpentine annually.

in London in 1737, and hearing of a beautiful pine shrub recently imported, procured four plants; he gave two to the Duke of Atholl, which are now in full vigour at Dunkeld, and may be called the parents of all the larch trees in the kingdom; he gave a third to Mr. Campbell, of Monzie, and kept the fourth for himself, which was unfortunately cut down fifty years ago. It had been planted forty-five years, and had grown to seven feet nine inches in circumference! The Duke of Atholl's plants were placed in a green-house at Dunkeld, where they did not thrive, but being planted in the open air they immediately began to grow, and quickly showed the consequence of being placed in a proper climate. The larch has proved a valuable acquisition to the produce of many barren moors in the Highlands, where the climate is found more favourable for this species of pine than in the plains. As an instance of the value

of these trees, the late Duke of Atholl sold one thousand larch trees, of seventy years' growth, for five thousand pounds."

"Uncle Ben, are not those trees, just over the hedge, pines?" said Thomas; "you see there are four all growing alike."

"They are," said Uncle Ben, "and they remind me of seven pines, which I have seen on the road from Shrewsbury to Aberystwith, the branches of which very nearly correspond on each tree; they are called the 'Seven Sisters.' It is said they were planted there many years ago by seven sisters of a very noble family."

"Have you any objection, Uncle," said Frank, "to our walking through the park, you used frequently to take us through, but we have not been in it since we commenced our woodland rambles?"

"A very good thought, Frank," said his uncle; "there is a cedar of Lebanon there, which, being

another description of pine, I wished to give you some account of this evening.

“ You have frequently read of this tree as being used in building the temple of Solomon, there is little doubt but it is the same kind as the one I shall presently show you in the park. We will first, however, rest ourselves by sitting on the stile, and Thomas shall read some passages concerning it from this Bible, which I put in my pocket for the purpose.

“ First of all turn to the first book of Kings, the fifth chapter, and read the verses from the sixth to the eleventh.”

“ I have found it,” said Thomas :—

‘ And Solomon sent unto Hiram, saying,

‘ Now therefore command thou that they hew me cedar trees out of Lebanon.

‘ And Hiram sent to Solomon, saying,

‘ I will do all thy desire concerning timber of cedar, and concerning timber of fir. My servants shall bring them down from Lebanon unto the sea.

‘And I will convey them by sea, in floats, unto the place that thou shalt appoint me, and will cause them to be discharged there, and thou shalt receive them.

‘And thou shalt accomplish my desire in giving food for my household. So Hiram gave Solomon cedar trees, and fir trees, according to all his desire.’”

“Very well read, indeed,” said Uncle Ben ;
“now read the thirteenth, fourteenth, and fifteenth verses.”

“‘And Solomon raised a levy out of all Israel ; and the levy was thirty thousand men.

‘And he sent them to Lebanon, ten thousand a month, by courses ; a month they were in Lebanon, and two months at home.

‘And Solomon had threescore and ten thousand that bare burdens, and fourscore thousand hewers in the mountains.’”

“That will do,” said his uncle ; “now give me the holy book and I will read you two or three passages :—

‘So he built the house and finished it, and covered the house with beams and boards of cedar.

‘And then he built chambers against all the house, five cubits high ; and they rested on the house with timber of cedar.’

‘And the cedar of the house within was carved with knops and open flowers: all was cedar, there was no stone seen.

‘And he built the inner court with three rows of hewed stone, and a row of cedar beams.’

‘Solomon built also the house of the Forest of Lebanon, . . . upon four rows of cedar pillars, with cedar beams upon the pillars.

‘And the porch of judgment was covered with cedar from one side of the floor to the other.’

“The prophet Ezekiel gives a very fine and true description of the cedar of Lebanon:—

‘Behold the Assyrian was a cedar in Lebanon, with fair branches, and of an high stature; and his top was among the thick boughs. His boughs were multiplied, and his branches became long. The fir trees were not like his boughs, nor the chesnut trees like his branches; nor any tree in the garden of God like unto him in beauty.’

“Now we will renew our ramble; and I will tell you what travellers say of the cedars of Mount Lebanon. Few of them now remain. In 1575, we are told, there were twenty-four sound trees, and two that were old and decayed. One hundred

and twenty-one years after the time of which this traveller speaks, there were only sixteen large trees ; but several smaller ones had been planted. At this time, one of the largest was measured, and was found to be twelve yards six inches in girth, and quite sound ; and thirty-seven yards in the spread of its boughs. The few trees yet left on Mount Lebanon, are preserved with great strictness.

“ Yonder, is the tree I wished to show you ; you see that it is very splendid. It is not quite so high as the larch, but very nearly. Do you remember what height I told you the larch will attain ?”

“ I think you told us fifty feet,” said Harry.

“ Right. You will observe in this tree a firmness in the bark, and a stability in the trunk, in the manner in which it springs from the ground, and in the form of the branches, not found in any other pine—scarcely in any other tree. The

foliage is superior to that of any other of the tribe, each branch being perfect in its form. The colour is also very fine, of a rich green. The leaves much resemble those of the larch, but are somewhat longer, and closer set, erect, and perpetually green, which those of the larch are not, but hanging down, dropping off, and deserting the tree in winter. The cones are tacked and ranged between the branch-leaves in such order as nothing appears more curious, and, at a little distance, exceedingly beautiful. These cones have the bases rounder, shorter, or rather thicker, and with blunter points; the whole covered with scales, which become smaller towards the top. You cannot find any of these cones underneath the tree; for they do not drop off whole, as those of most pines do, but fall down in pieces.

“If this tree was not of tardy growth, it would be one of the most valuable of the forest. It is

not so *strong* as the oak, but it is so *bitter* that no insect will touch it. We are told that the timber in one of the ancient temples was found undecayed after the lapse of two thousand years. This timber was cedar.

“ The cedar of Lebanon, though it has been introduced into many parts of England as an ornamental tree, and has thriven well, has not yet been planted in great numbers for the sake of its timber. It is more difficult to rear, and requires a better soil, than the pine and the larch ; but, as I said before, the principal objection to it has been the slowness of its growth. It is even longer than the oak in coming to perfection. Some cedars, which have been planted in a soil well adapted to them, at Lord Carnarvon’s, at Highclere, have, however, grown with extraordinary rapidity. Of the cedars planted in the Botanic Garden, at Chelsea, in 1683, two had, in eighty-three years,

acquired a circumference of more than twelve feet at two feet from the ground; and their branches extended more than twenty feet on every side their trunks; which branches, though they were produced twelve or fourteen feet above the surface, at their ends hung very near the ground, and so made a delightful shade in the hottest season of the year.

“These trees were planted at the four corners of a pond, bricked up within two feet of their trunks, so that their roots, having no room to spread on one side, were cramped in their growth; but it is supposed they were as much benefited by their vicinity to the water as injured by the confinement of the roots.

“But, come, we must not stand here too long; so let us proceed, and I will tell you of some other cedars of considerable size, of which many are scattered about in different parts of the kingdom.

“ Some of the finest were planted by Archibald, Duke of Argyle ; one of which was destroyed by a hurricane on the first of January, 1779. It grew on the north side of Hendon-place, in Middlesex : its height was seventy feet ; its branches extended over a space of fifty feet on every side ; the circumference of the trunk was twenty-one feet. It began to branch about twelve feet from the ground ; and the limbs, of which there were ten, measured from six to twelve feet in circumference. When blown down, it was perfectly sound, and seemed as if not grown to maturity.

“ At Hillingdon, near Uxbridge, was a cedar, the height of which, at the age of a hundred and sixteen years, was fifty-three feet ; and the spread of its branches, ninety-six feet. The circumference of the trunk, close to the ground, was thirteen feet and a half ; at seven feet, it was twelve

and a half; and at thirteen feet, just under the branches, it was fifteen feet eight inches. There were two principal branches—the one twelve feet, and the other ten feet, in girth. The first, after a length of eighteen inches, divided into two arms; one eight feet and a half, and the other seven feet ten inches. The other branch was parted into two, of five feet and a half each.

“In the gardens of the old Manor House, at Enfield, Dr. Uvedale planted a cedar, which, in 1789, had a girth of fourteen feet, and was forty-five feet nine inches in height, eight feet having been broken from the top by a hurricane in 1703.”

“Is this the kind of cedar which is used in making lead-pencils?” said Frank.

“No,” said his uncle; “it is quite a distinct species. It is the red cedar from which the wood for lead pencils is obtained. This species is a native of North America, the West Indian Islands,

and Japan. The berry is blue ; the bark thin, and breaks off in large pieces. Of all the woods in America, this is the most durable ; and is, therefore, made use of in all cases where other timber rots. Some people say, that if iron were put into the ground along with a pole of cedar, the iron would be half corroded by rust, in the same time that the wood would be rotten.

“It is used for shingles, canoes, yachts, and various other purposes. The heart of this tree is of a fine red colour, and whatever is made of it looks very well, and has a very agreeable and wholesome smell ; but the colour fades by degrees, otherwise the wood would be more frequently made use of by cabinet-makers.

“Its very strong and agreeable scent induces many people to put the shavings and chips of it among their linen, to preserve it from moths. Some time ago, it was the practice to have chests

of drawers, &c., made of it, with the same view ; but as it is only useful for this purpose so long as it is fresh, after which time it loses its smell, it has gone into disuse.

“ The gentlemen’s seats, in America, have frequently an avenue of these trees leading from the high-road to their houses, which has a very grand effect. The lower branches are generally cut, and only a fine crown left, which, in winter, when most other trees have lost their leaves, adds greatly to their beauty, and gives them a very fine appearance.

“ But I fear I am wearying you with so long an account of this tree ?”

“ Oh, no ! Uncle Ben,” said Thomas ; “ indeed, you are not. You will have time to tell us of another tree before we reach home.”

“ Well, boys, if you wish it, I will give you some account of one other description of cedar :

by that time, we shall have reached your house ; and I shall stop and take my tea with you."

" Very well, Uncle Ben," said Frank ; " I am sure papa will be glad to see you. But pray commence your account of this tree, or there will not be time before we reach home."

" The white cedar, or cypress, grows in the swamps, and other parts of America ; and when left to grow up, they are as tall and thick as the largest fir trees. They preserve their green leaves both in winter and summer ; and the tall ones have no branches on the lower part of the stem.

" The timber of this tree answers well for fences, and posts which are to be put into the ground. It likewise makes good canoes. The young trees are made use of for hoops, round barrels, tuns, &c., because they are thin and pliable. The thick and tall trees afford timber and wood for coopers' work. The houses which are

built of it, surpass in duration those which are built of American oak. This tree affords the best kind of shingles ; they are more durable than any others made of American wood (the red species, which I told you of before, being excepted). They are very light ; so that no strong beams are requisite to support the roof. When fires break out, it is less dangerous to go under or along the roofs ; because the shingles, being very light, can do little hurt by falling. The roofs made of these shingles can easily be cut through, if required ; because they are thin, and not very hard. For these qualities, the Americans are very desirous of having their houses covered with white cedar shingles, if the wood can be got.

“ All the inhabitants are of opinion that the water in the cedar swamps is very wholesome : it creates a great appetite. They ascribe this quality to the water itself, which is impregnated with the

resin of the trees. They likewise affirm, that this water is always very cold in the hottest seasons : this may be partly owing to the continual shade it is in ; and many people go to these cedar-swamps for the benefit of their health."

"Does this tree grow in England?" said Harry.

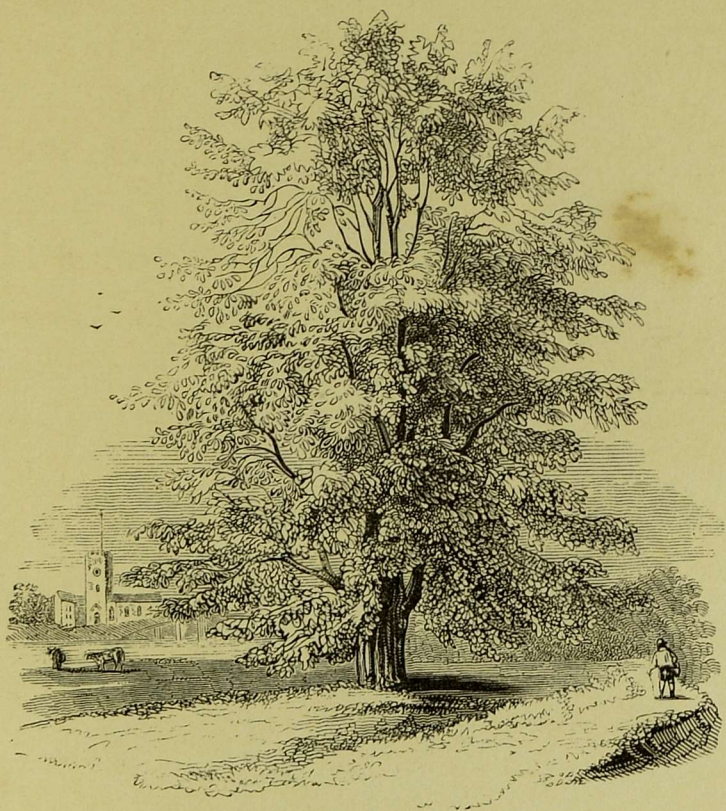
"Yes ; but it is very rare. It was first cultivated in the year 1664. But we are arrived at the gate. In our next ramble, I shall tell you of some other kinds of trees. But we must leave off for the present. Now, boys, let us in to tea."

RAMBLE SEVENTH.

ON THE HORSE-CHESNUT, THE YEW, THE ALDER, AND THE
DIFFERENT KINDS OF THORNS.

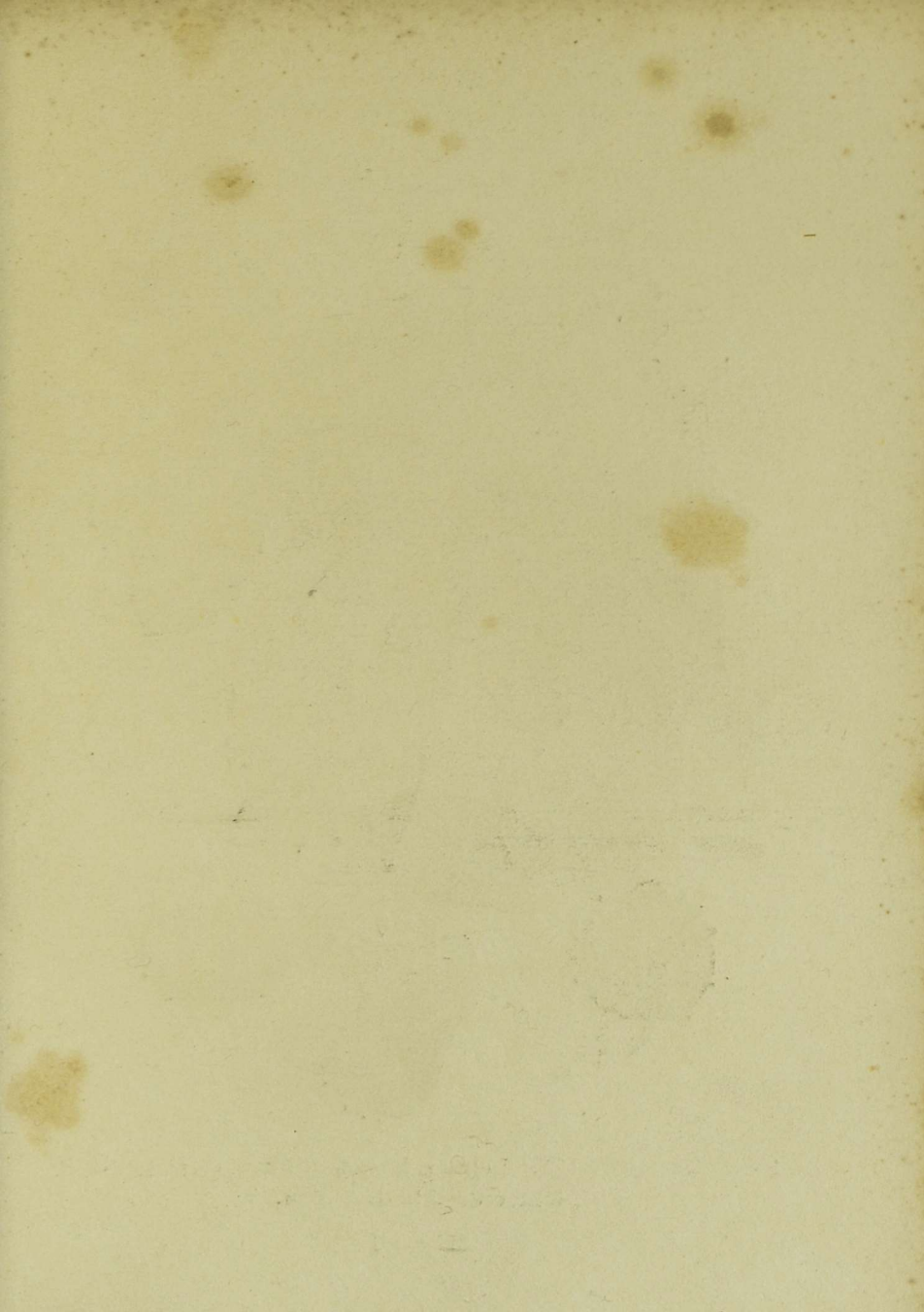
“How do you do, Uncle Ben?” said Thomas, who, with Frank and Harry, had met his uncle at his garden-gate. “In our second ramble, you told us about the chesnut tree; papa told us to-day there was another species, called the horse-chesnut.”

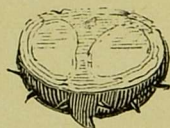
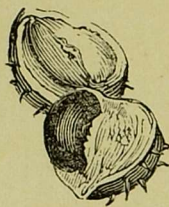
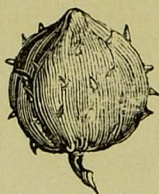
“There is,” replied Uncle Ben. “I was considering yesterday what trees I had not spoken of, and that is one; so it shall be the first we talk about to-day. They are now in flower; and you will see a row of them as soon as we turn into the lane.”



HORSE CHESNUT.

[36—148]





HORSE CHESNUT. Leaves, Bunch of Flowers, Capsule of
Nut, closed and opened.

“Are those horse-chesnut trees?” said Harry.

“I have seen those trees very often; but have never thought of asking you what they were.”

“I think the horse-chesnut tree,” said Uncle Ben, “so long as its foliage is perfect, is one of the most ornamental of our trees. Do you observe its flowers, which are white, delicately marked with red and yellow? They stand upright, each bunch forming a beautiful pyramid, or spike. Its leaves are almost like a hand with seven fingers; and its branches are most beautifully arranged:—

‘For in its honour, prodigal nature weaves
A princely vestment, and profusely showers
O’er its green masses of broad palmy leaves
Ten thousand waxen pyramidal flowers;
And gay and gracefully its head it heaves
Into the air, and monarch-like it towers.’”

“I suppose,” said Thomas, “the poet alludes to the resemblance the leaves have to the hand,

when he says ‘palmy leaves?’ I very much wonder we never thought of this tree before; it is so very beautiful. Does this flower form a nut, Uncle Ben?”

“Yes; but they are not eatable. Some go so far as to say they are poisonous; but I think this must be a mistake; for the Turks grind them, and mix them with the food of their horses—whence the common name. They devour them with avidity; and they are stated to be eaten by sheep, and by poultry, when boiled; but hogs refuse them both raw and prepared.”

“Well, Uncle Ben,” said Frank, “I do not think I should eat them, if there is any doubt about their being poisonous.”

“Very right, Frank; it is a dangerous thing to eat berries, &c., which may be found in the fields and lanes, unless you are well acquainted with them. I have heard of persons dying from

the effects of berries which they imagined were wholesome, and therefore had eaten ; but which were, in fact, deadly poison. But, to return to our subject.

“ The nuts of the horse-chesnut tree are very beautiful when fresh ; many of them have the appearance of the most elegantly veined and finely polished mahogany.

“ The horse-chesnut is of very quick growth. Plants which have been raised from the nut have, in twelve or fifteen years, become so large, that several chairs might be shaded under their branches ; being also covered with flowers.

“ This tree is a native of Northern Asia ; from thence it was brought to Constantinople, Vienna, Paris, and, in the year 1712, was first introduced in England.

“ A horse-chesnut, in front of the house of Fountain-hall, in Haddingtonshire, a very beau-

tiful tree, measures eight feet two inches in girth, at three feet from the ground; and the branches cover an area of fifty feet diameter. A horse-chesnut, at Yester, measures, at one foot from the ground, about ten feet. The great horse-chesnut, at Burleigh, is sixty feet high, ten feet in girth at four feet from the ground, contains three hundred feet of solid timber, and its branches cover an area of sixty-one feet in diameter. A horse-chesnut, at Prestonhall, at one foot from the ground, measures fourteen feet three inches; at three feet from the ground, ten feet nine inches; and at four feet, ten feet three inches. There are many trees near it, of dimensions little inferior. A horse-chesnut, at Halton, in the county of Edinburgh, measured eleven feet four inches in girth, at four feet from the ground.

“In the winter, when destitute of its leaves, this is a most unsightly tree. Its naked branches

appear clumsy, and faggot-like. At the ends of the branches, before the leaves shoot out, the buds become very large; from thence they sprout forth; and, in three or four weeks, the shoot is full grown. After that time, it does not increase in length, but becomes stronger and thicker. These shoots are sometimes a foot and a half long; and the leaves, in this space of time, are fully expanded. No sooner have the flowers fallen, than the buds begin to form for the next year. They continue swelling till autumn; at which time they are covered with a thick clammy juice, which defends the tender buds from the cold of winter. The warmth of spring, however, soon melts this substance, leaving the bud at liberty to open."

"Is the timber of this tree very serviceable?" asked Thomas.

"The horse-chesnut, as I told you, grows very rapidly, and to a great height; but the timber is

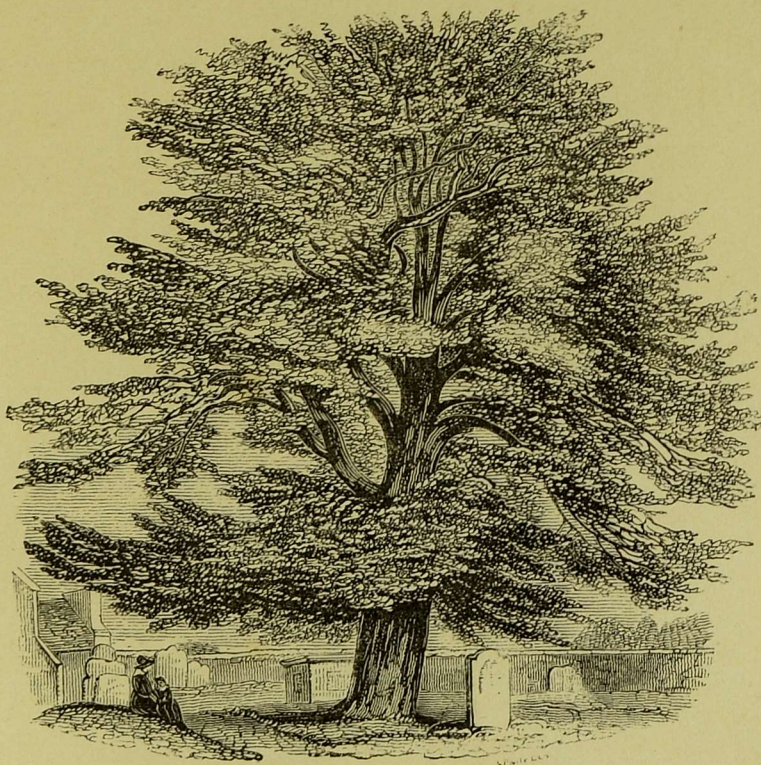
soft, spongy, and not durable; and therefore of little value. It is white, but every way inferior to the lime. It has sometimes been used by the turner, and also for water-pipes; but though it is very cheap, the advantage of using it is very questionable. It makes very excellent fuel. The bark of the horse-chesnut has been employed in tanning, and also in dyeing yellow."

"Uncle Ben," said Frank, "have you any objection to our walking through the churchyard?"

"Oh, no," replied his uncle; "I wish to go anywhere you like best."

"Is not that tree, which is so very fantastically cut, a yew tree?" said Harry.

"Yes. It was a custom with our ancestors to plant yews near their churches and houses. They were planted in the churchyards on account of their melancholy appearance; and near houses, for the purpose of forming them into grotesque



YEW.

[38-154]



YEW. Foliage, Leaves, and Seeds.

figures. Its melancholy appearance has been beautifully described by Sir Walter Scott :—

‘ But here, ’twixt rock and river, grew
A dismal grove of sable yew,
With whose sad tints were mingled seen
The blighted fir’s sepulchral green ;
Seem’d, that the trees their shadows cast
The earth that nourished them to blast ;
For never knew that swarthy grove
The verdant hue that fairies love.
Nor wilding green, nor woodland flower,
Arose within its baleful bower.
The dark and sable earth receives
Its only carpet from the leaves
That, from the withering branches cast,
Bestrewed the ground with every blast.’ ”

“ It certainly does look very sorrowful,” said Thomas. “ Is it a native of England, Uncle Ben ? ”

“ It is ; and of all parts of Europe, of North America, and Japan ; particularly of mountainous woods. You see, the trunk and branches grow

very straight. The wood is tough, durable, and very elastic. On this account, it is employed in many branches of the arts, in which firm timber is required. Before the general use of fire-arms, it was in such request for bows, that, not finding at home a sufficient supply for the bow-men, the merchants were obliged, by law, to import four staves with every ton of goods coming from places whence bow-staves had formerly been brought ; and ten staves with every butt of Malmsey from Venice.

“ The yew was also consecrated ; and they were held sacred. In funereal processions, the branches were carried over the dead by mourners, and thrown under the coffin in the grave.

“ The great value set, in former days, upon a consecrated yew, in comparison with one not consecrated, may be seen in the following extract from the ancient laws of Wales :—

- ' A *consecrated* yew, its value is a pound.
- ' A mistletoe branch, threescore pence.
- ' An oak, sixscore pence.
- ' Principal branch of an oak, thirty pence.
- ' A yew tree (*not consecrated*), fifteen pence.
- ' A sweet apple, threescore pence.
- ' A sour apple, thirty pence.
- ' A thorn tree, seven pence halfpenny. Every tree after that, four pence.'

"But we have staid here in the churchyard long enough. Which way shall we turn—over the stile, and through the fields, or into the road?"

"Oh! through the fields by all means," said Harry: "can you tell us anything more about this curious tree, uncle?"

"Although the yew is of very slow growth," continued Uncle Ben, "it is a very long liver, and some have attained a great size. Many have been recorded of the circumference of twenty-six feet, but I can tell you of a few even larger than this.

In Fotheringal churchyard, in Perthshire, is an old yew, almost dead, the trunk of which measures fifty-six feet and a half: it must be of great age, but it is not known exactly how long it has stood there. A yew tree that grew in the churchyard of Crowhurst, in Surrey, was thirty feet in circumference. One in Braburne churchyard, in Kent, was nearly twenty feet in diameter; and there was just such another at Lutton, near Winchester. At Hedor, in Buckinghamshire, there was lately, if there be not still, one in health and vigour, full twenty-seven feet in diameter.

“Some persons have asserted, that the beautiful red berries of the yew are poisonous; but this is altogether untrue; for when I was at school, I very frequently ate of them together with my schoolfellows. One of our poets, too, regretting some trees that had been felled, speaks of having eaten them; he says,—

‘ If he had played about here when a child
In that fore-court, and eat the yew-berries ;
And sate in the porch threading the jessamine flowers,
Which fell so thick,—he had not had the heart
To mar all thus.’

“ The same writer speaks of its leaves as being
hurtful, which I believe they are,

‘ Sure this is better
Than a great hedge of yew that makes it look
All the year round like winter, and for ever
Dropping its poisonous leaves from the under boughs,
Withered and bare !’

“ I have now finished all I can tell you of the
yew-tree, and am afraid you are getting tired.”

“ No, no, Uncle Ben,” said Thomas, “ we shall
be very sorry indeed when you have told us of
all the English trees, for I am afraid our rambles
will end with them.”

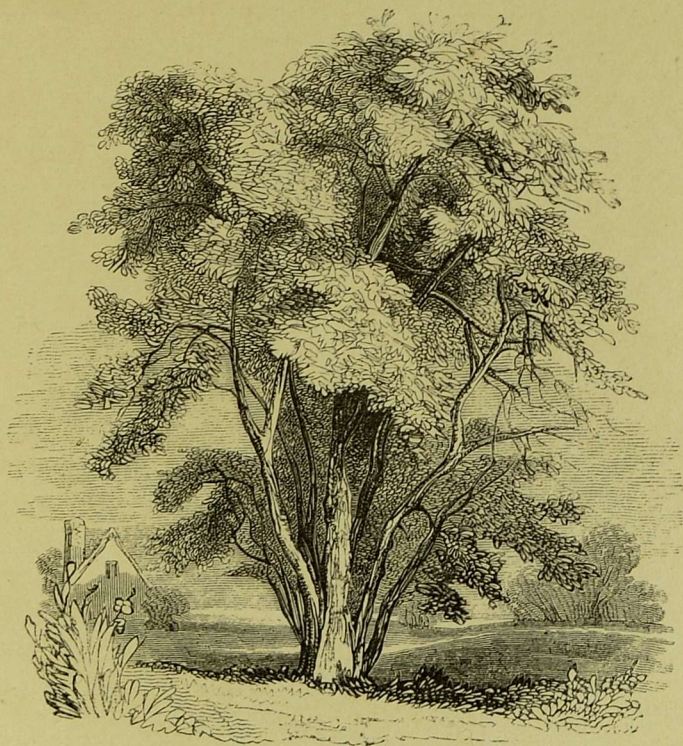
“ That need not be the case,” replied his uncle ;
“ but, however, we shall see when the time comes.
Do you notice that tree growing in the marsh,

close to the river, with round leaves, of a dark green, and almost covered with what you have heard called cats' tails (properly catkins), hanging in bunches of three, like ladies' ear-rings?"

"Oh, yes, we have frequently observed it," said Frank; "what tree is it, Uncle Ben? you have not yet given us a description of it."

"It is called the alder-tree, and may be reared to the height of forty feet, though these are not so tall. The alder is a native of all Europe and Asia. In England it generally flowers in April or May,

"The wood of this tree is remarkable for its durability in the water; and is therefore used in different parts of Europe for the support of buildings in marshy places. Large quantities are raised in Holland and Flanders (where the land is very wet) for such purposes. It also furnishes very capital water-pipes, and is used for various domestic purposes, as spinning-wheels, milk vessels,



ALDER.

[40—160]



ALDER. Leaves and Catkins.

bowls, spoons, and the like. The cabinet-maker uses the roots and knots, which furnish him with a beautifully veined wood.

“ When of considerable size, the timber of one of the varieties is red, and often so finely streaked that it is called Scotch mahogany in the north, and furniture is made of it. That which is got out of the bogs, in an undecayed state, has the colour, if not the consistency, of ebony. The coopers in the north of Scotland form variegated cups, some of which are very handsome, of birch or holly, which are very white, of juniper, which has a slight cinnamon tinge, and of bog-alder, or of bog-oak, both of which are very black.

“ The bark of the alder contains a good deal of tannin; and the country people of Scotland, to avoid the tax upon leather, privately tan hides with the bark of the alder and birch. The bark of the alder is also used by fishermen for their

nets ; and the young wood and fresh shoots furnish dyes of divers colours according to the time of year they are gathered ;—the fresh shoots dye yellow ; when cut in March they give a cinnamon colour ; dried and powdered a fine tawny ; the young wood dyes a snuff-colour ; and the catkins, green. The branches make good charcoal.

“ The alder makes good hedges in boggy ground, improves the soil, and tends to preserve the banks ; the shade does not injure but rather improves the grass, so that coppices of it afford good wintering for the out-door stock on mountain pastures.

“ There is a beautiful variety of this tree called the hoary, or silver-leaved alder, which is of smaller growth than the common alder, the leaves are not so round, and are quite white on the under side ; the wood is white and of a closer grain. Instead of requiring a damp marshy situation, like the common alder, this tree flourishes best in a

dry, sandy soil. It was first cultivated in this country in the year 1780, being brought from Switzerland, Siberia, and other cold countries.

“An old author observes, ‘that the alder may have given the first idea of navigation. It grows commonly on the banks of rivers, and one of these trees, hollowed by age, may have fallen into the water, and so given the first idea of a boat.’

“The alder grows very luxuriantly on the banks of the Mole, in Surrey :—

‘One day, quoth he, I sate, as was my trade,
Under the foot of Mole, that mountain hoar,
Keeping my sheep among the cooly shade
Of the green alders on the Mulla’s shore.’

“There are some beautiful plantations of it in the neighbourhood of Dorking and Esher.

“Do you remember, boys, whether I have yet given you an account of the different thorns? I think I have not.”

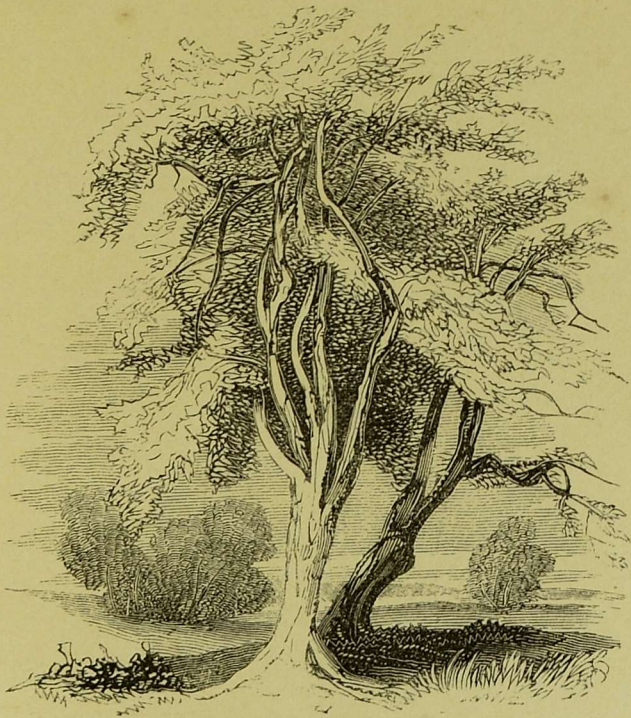
“No, Uncle Ben,” said Thomas, “you have not, but perhaps you would now tell us something about them.”

“I will gladly do so,” replied his uncle; “we shall just have time to run through them before we reach home.

“The white thorn, or I dare say you will know it better as the common hawthorn, is valuable both as a hedge-shrub and as a tree. When in bloom, the white blossoms of the hawthorn give it a very beautiful appearance:—

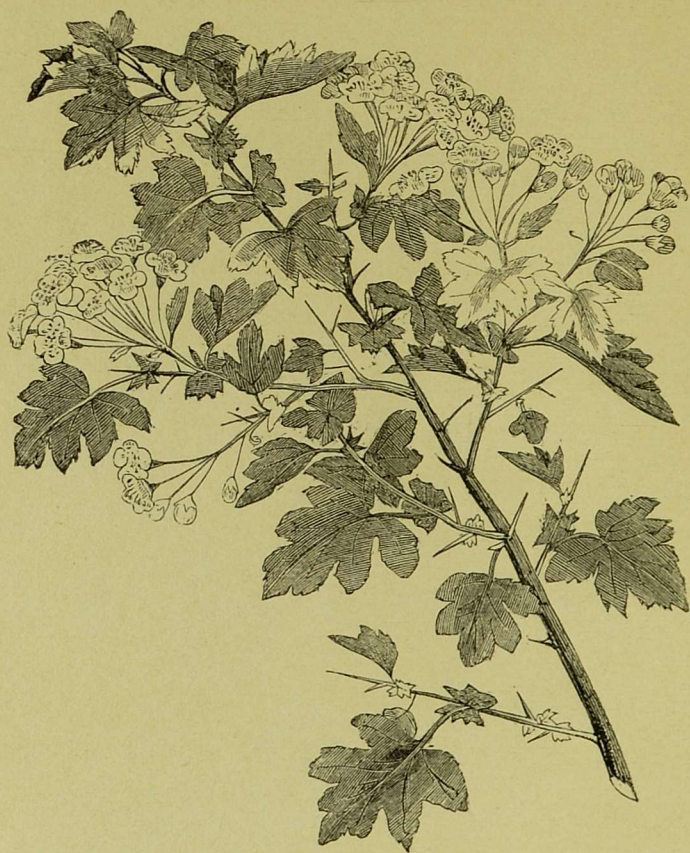
‘Between the leaves the silver white-thorn shows
Its dewy blossoms pure as mountain snows.’

“The season for flowering is usually May, on which account the name of *May*, or *May-blossom*, is in many places given to the tree. These blossoms very much resemble the cherry-blossom, or that of the myrtle. One variety has flowers of a beautiful pink colour, but the white are most prevalent.



HAWTHORN.

[42—164]



HAWTHORN. Leaves, Blossom, and Berries.

[43—165]

“ This tree, or shrub, is one of the earliest and greatest ornaments of our hedges in the spring, and one of the latest in the autumn, for the countless red berries, or *haws*, are perhaps even more beautiful than the blossoms. These haws furnish a repast for all kinds of small birds in the winter.

“ The hawthorn is a quick-growing tree when young, a single year's shoot being sufficient for a good walking-stick ; but when it stands to be a tree, it makes wood very slowly, and lives to a great age. Some years ago, there stood in the cellar of Cawdor Castle, in the county of Nairn, Scotland, a hawthorn, which was without leaves or bark for a century before it was destroyed, and had been in that situation, and of the same size, before the castle, which is a very old one, was built.

“ A hawthorn at the house of Kinkarochie, in the parish of Scone, in Perthshire, measured, in

1795, was found to be nine feet in girth. There are no doubt many in the country of a larger size than this.

“The wood is remarkably durable, and fit for many purposes; but, unfortunately, as the tree grows so slowly after attaining a certain size, a supply of timber of large dimensions cannot be rapidly obtained.

“There are many varieties of the hawthorn, all natives of Europe and cultivated in England, amongst the most beautiful of which are,—

“The great American, or scarlet-fruited, hawthorn, which grows in this country to the height of five-and-twenty or thirty feet; it has large flowers, coming out in bunches, or clusters, in the month of May, and makes a handsome show; the haws, or berries, which succeed, are large and pear-shaped, and of a rich scarlet colour; they ripen in September. The most remarkable circumstance

connected with this species is that the leaves turn to a dull reddish colour in the autumn.

“The cockspur hawthorn, which was first cultivated in this country in 1692, has fine blush-coloured flowers, or white tinged with blush-colour; the fruit is round, and of a bright red; and, lastly,

“The maple-leaved hawthorn, the branches of which are spotted with white; this kind was introduced into England from America in the year 1738.

“I will now tell you of another kind of thorn, called the white-beam tree.

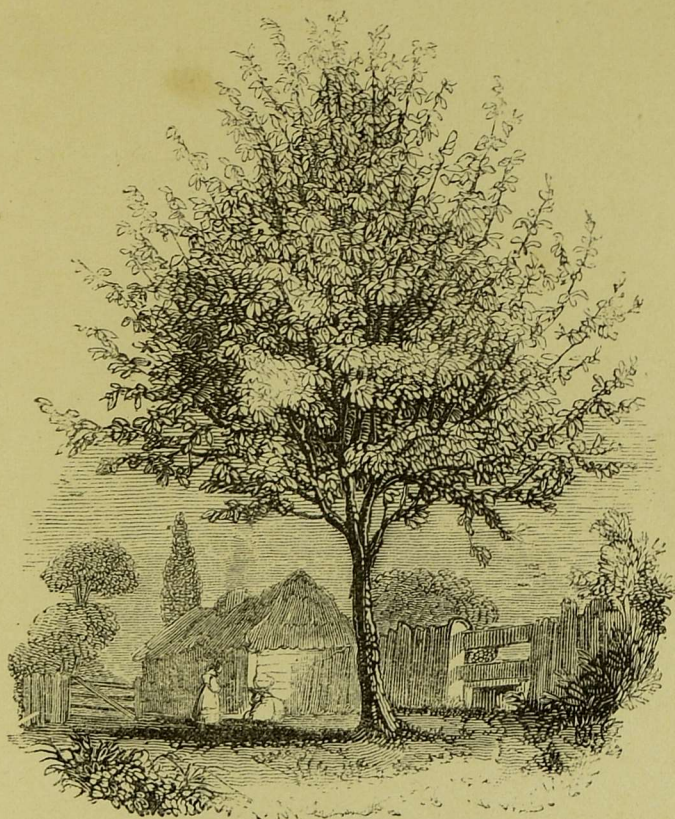
“The white-beam is a beautiful tree, rising to the height of thirty or forty feet; the leaves are about three inches long, and half that in width, of a light green on the upper surface, but very white on the lower. The trunk is large and divides into many branches. The flowers grow at the end of the branches, in bunches, as large as your clenched

hand, they are white, and are succeeded by red berries. It is a native of many parts of Europe, growing upon dry and rather warm soils, such as those over gravel, chalk, and lime-stone.

“The wood being hard, tough, and smooth, is manufactured into axle-trees, wheels, walking-sticks, and tool-handles. It is close and takes a good polish ; but, like most of the thorns, it needs to be well seasoned, otherwise it is apt to warp and split. The fruit is eatable when mellowed by the frost, and an ardent spirit is distilled from it.”

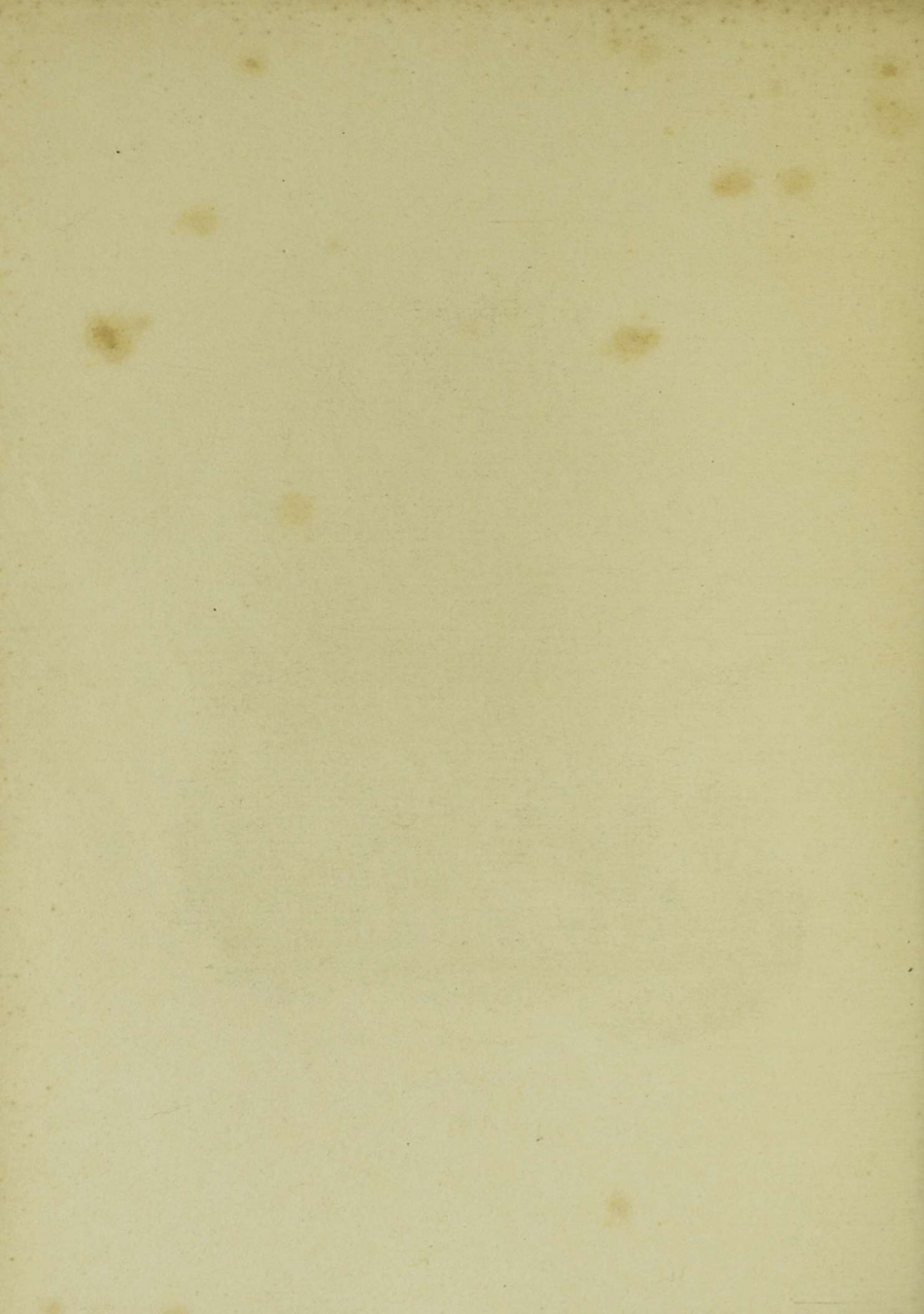
“How sorry I am that we must now part,” said Harry ; “it scarcely seems half an hour since we started on our ramble.”

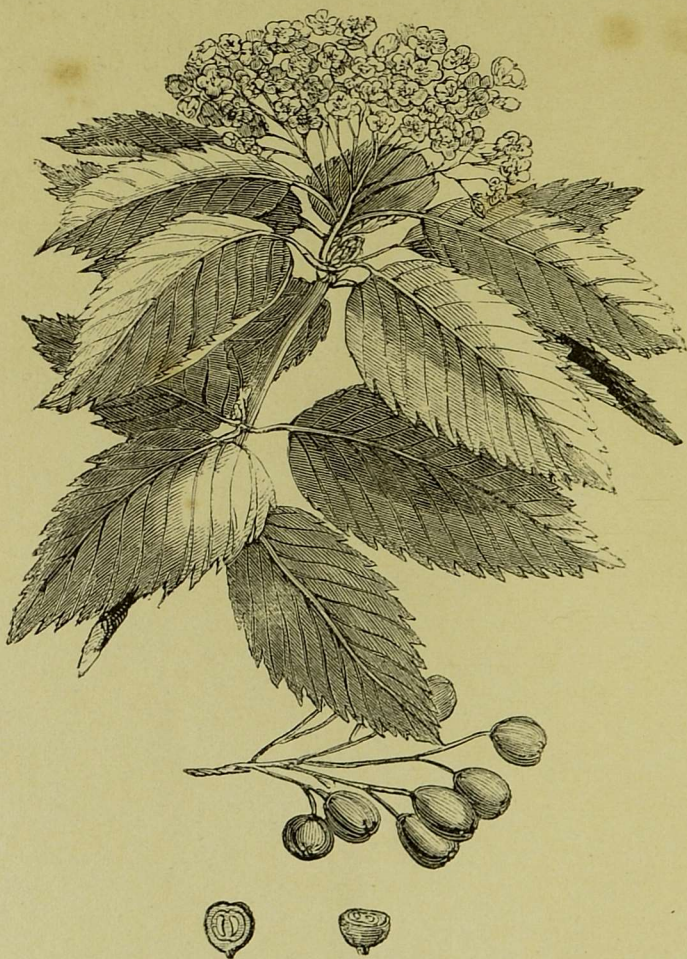
“Time seems to fly very fast,” replied Uncle Ben, “when we are engaged in some pursuit in which we are interested. But, boys, I will detain you a few minutes longer. Look on the scene before us. Are not the trees arranged in the



WHITEBEAM.

[44—168]





WHITEBEAM. Leaves, Bunch of Flowers, and Berries.

most beautiful order? What a variety of colours !
One of our greatest poets, Cowper, has described
the different colours of trees. I will recite you
the lines :—

‘ Nor less attractive is the woodland scene,
Diversified with trees of every growth,
Alike, yet various. Here the gray smooth trunks
Of ash, or lime, or beech, distinctly shine
Within the twilight of their distant shades ;
There, lost behind a rising ground, the wood
Seems sunk, and shortened to its topmost boughs.
No tree in all the grove but has its charms,
Though each its hue peculiar, paler some,
And of a wannish grey ; the willow such,
And poplar that with silver lines his leaf,
And ash, far stretching his umbrageous arm ;
Of deeper green the elm : and deeper still,
Lord of the wood, the long-surviving oak.
Some glossy-leaved, and shining in the sun,
The maple, and the beech of oily nuts
Prolific, and the lime at dewy eve
Diffusing odours : nor unnoted pass
The sycamore, capricious in attire,
Now green, now tawny, and ere autumn yet
Have changed the wood, in scarlet honours bright.’

“I should very much like to learn that, Uncle Ben,” said Thomas, “it is so simple that I can easily understand it.”

“Then if you will run down the lane to my house in the morning, I will lend you a volume which contains it. Good-bye.”

“Good-bye, Uncle Ben.”

RAMBLE EIGHTH.

UNCLE BEN GIVES A SHORT ACCOUNT OF THE BOX-TREE, THE PLANE TREE, THE SERVICE TREE, THE EVERGREEN CYPRESS, THE ELDER, AND ALSO OF SOME FRUIT TREES VALUABLE FOR THEIR TIMBER: HE CONCLUDES HIS REMARKS ON ENGLISH TIMBER TREES.

“UNCLE BEN,” said Thomas, “I have brought you that volume of Cowper which you lent me the other day; I have learnt those lines you recited in our last ramble, perfectly; and Frank and Harry came down with me to request you to indulge us with another trip to-day, and some more information respecting trees.”

“I will do so with great pleasure. Wait a short time while I put this book in its place in the library, and then I will accompany you.”

“How good Uncle Ben is,” said Frank, after he had left the room, “he is always willing to oblige us.”

“Now, boys, I am ready,” said Uncle Ben, again entering; “so off we start.”

“What trees are these,” said Harry, “one standing on each side of the walk on the grass-plot, they appear to be very old?”

“They are, indeed. This is the kind of tree from which your peg-tops are made:—the box. The little plant, which separates the gravel-walk from the flower-border, is a kind of box, but it is a different species, and is called by gardeners dwarf box.”

“A very proper name, compared with these trees,” observed Thomas.

“Yes;—this large species is called the common box, and these are very fine specimens, being nearly fifteen feet high, and the diameter of their

trunks, in the widest part, is six inches. Box trees have, though very rarely, been known to grow much larger.

“ This tree is now only to be found in private pleasure-grounds and gardens, though in ancient times it flourished upon many of the barren hills of England, particularly in Surrey. Boxhill, in that county, derived its name from the number of box trees growing there. The great demand for box-wood, and the great prices paid for it, induced the proprietors to fell them, and it is on this account, and the slowness of its growth, that the race is almost vanished from England, and we now import it from France and other countries. It is as heavy and durable as ebony, and cuts better than any other wood. The grain of the box is so fine that it is used where no other kind of wood can be employed, I mean for the wood-cut engravings of books. So that when you see beautiful wood-cuts

in your books, remember that you are indebted to this tree for them.

“ Like holly, the box is very retentive of its sap, and warps when not properly dried, though when sufficiently seasoned it stands well. Hence, for the wooden part of the finer tools, for everything that requires strength, beauty, and polish in timber, there is nothing equal to it.

“ Beautiful figures and ornaments are often impressed upon box, by a much more cheap and simple process than that of carving. For this purpose the wood is softened by the application of heat and moisture ; and the die being strongly pressed upon it when in that state, the impression comes off, and is retained with considerable sharpness. Snuff-boxes of this description are made in France, Switzerland, and Germany, and the material used is principally the root of the box.

“ There is a tree, likewise, grown only as an



ORIENTAL PLANE.

[46—174]





ORIENTAL PLANE. Leaves and Globes of Flowers.

[47—175]

ornament, called the plane tree. It is a native of Asia, where it grows very large: the trunk is tall, and covered with a smooth bark, which annually falls off in scales. The leaves are about seven inches long and eight broad; the upper side is of a deep green colour, the under side paler; the flowers are very small; they grow on long foot-stalks, hanging downwards, in balls four or five together; they bloom late in May, or early in June, a short time before the leaves appear.

“ The beauty and delightful shade of the plane are highly esteemed. It was first cultivated in England in 1623, being brought from Asia, which I told you is its native country.

“ In Persia, some of these trees grow to be three or four yards in circumference. It is recorded, that the Turks formerly built their ships with its timber.

“Among the ruins of New-abbey, formerly a monastery, in Galloway, there grows, on the top of a wall, a plane tree, twenty feet in height. Not having a sufficiency of nourishment, it, several years ago, directed roots down the side of the wall, till they reached the ground ten feet below; and now the nourishment it afforded to those roots during the time of their descending is amply repaid, having every year, since that time, made vigorous shoots. From the top of the wall to the surface of the earth, these roots have not thrown out a fibre, but are now united in a single root.”

“What a very remarkable thing,” said Frank, “that the tree should shoot its roots to the ground! One would almost say the tree knew what was necessary for its preservation.”

“We continually find,” said Uncle Ben, “something or other which shows us how admirably all the laws of nature have been contrived.

“ The wood of trees which grow slowly is always hard and durable. The true-service, or service-tree, is generally cultivated as a shrub ; but, in time, it becomes a tree of considerable size. In the south of Europe, it grows to a much larger and loftier tree than it is here. It does not blossom till it has attained a great age. The flowers are of a dark cream-colour, and make their appearance in May. The fruit is pear-shaped, of a reddish hue, and spotted : it is not eatable until mellowed by the frost, when it becomes brown and soft. In some parts of the North, an ardent spirit is obtained from them.

“ The wood is compact and strong, and often made into weavers’ shuttles, and the wooden parts of other small tools and implements. But the principal use of it is in the manufacture of mathematical rules ; for which it is much esteemed. The service-tree could never be profitably culti-

vated in this country, in consequence of the slowness of its growth.

“The wild service, another species, is a native of England and many other parts of Europe. It grows forty or fifty feet high, with a large trunk, spreading at the top into a broad head. The flowers are in large bunches, shaped like the blossom of the pear tree, but smaller, and are succeeded by brown berries in the shape of haws, but much larger, which are sold in the London markets in autumn; and when they have become brown and soft by time, have an agreeable taste.

“The timber is very hard and white, and is used with advantage for cogs of wheels, and other working parts of wooden machinery.

“Some time back, I gave you an account of the white cedar, or cypress: there is another tree, called the evergreen cypress, of which there are two varieties—the upright, and the spreading. It

is a native of the Levant, Malta, China, &c. ; and was first cultivated in England in 1551. It thrives best in a warm, sandy, or gravelly soil, and seems well adapted for many situations in the southern parts of the kingdom ; though it has not been much cultivated in England as a timber tree.

“ The cypress lives to a great age ; and some have grown to an enormous bulk. One has been recorded, that grew in Persia, of which the stem was as large as five men could encompass : it was supposed to be two thousand five hundred years old.

“ Of all timber, that of the cypress is generally supposed to be the most durable ; superior even to that of cedar itself. The doors of St. Peter’s church, at Rome, which were made of this timber in the time of Constantine, showed no sign of decay when, after the lapse of eleven hundred years, Pope Eugenius the Fourth took them down

to replace them by gates of brass. In order to preserve the remains of their heroes, the Athenians buried them in coffins of cypress; and the chests or coffins in which the Egyptian mummies are found, are usually of the same material. Cypress is a handsome timber, and was formerly considered no less beautiful than durable. Though hard, it is elastic; and is therefore used for harps, organ-pipes, and various other musical instruments. For furniture, it would be equal even to mahogany; for though not so beautiful in colour, it is stronger, resists the worm equally, and its odour repels insects from whatever may be contained in a cabinet or chest made of it. In the time of the Romans, it was used among the rich inhabitants for beds and tables; and was esteemed for the spots and figures in the wood; from which the tables were called *Mensæ Tigrinæ et Pantherinæ*. Can you tell me the translation of these words?"

“Do they not mean tiger and panther tables?” said Thomas.

“Yes. For building, there is no timber superior to the cypress, which lasts almost as long as stone itself: accordingly, where it is found in great abundance, it is very much used for that purpose.

“In Candia, there was a vast wood of these trees, which, by malice or accident, was set on fire in the year 1400, and continued burning for seven years before it could be extinguished, being fed for so long a time by the resinous nature of the timber.

“The chips of cypress have been used to flavour rich wines. The cones or chips, burned, will destroy or drive away moths, gnats, and flies; and it yields a gum not much inferior to mastic.”

“Does it flourish in this country, so as to become a large tree?” inquired Frank.

“Unfortunately,” said his uncle, “our climate

is too cold for it to become of a size valuable for its timber : it is seen here only as a shrub."

"What tree is that, Uncle Ben, which is so covered with little white flowers?" said Frank.

"Why, there are three or four of them along the hedge."

"That is the elder, which, as you see, is a very bushy tree, growing to the height of about sixteen feet. When young, it is covered with a smooth grey bark ; and even on this you observe the young shoots are so. But look at the trunk and older branches, how rough and notched they appear. The flowers are not quite white, but have a very slight tinge of yellow ; and when dried, have a delightful scent. These are succeeded by small round dark-purple berries. These berries are fermented into a wine, which, when spiced and drunk warm, is a pleasing and wholesome winter beverage.

“ It has been said, that insects in general have so great a dislike to the elder, that if turnips, cabbages, fruit-trees, or corn, be whipped with branches of it; or if a gate stuck full of them be drawn over the crops, no insects will attack them. The flowers are considered poisonous to turkeys; and the berries, to poultry in general.

“ The elder tree has many medicinal properties; still the shade and smell of it are very injurious.

“ There is a variety of the elder, with white berries; and another, of which the berries are red. The leaves of the latter are eaten by the red deer; and its berries, by partridges and moor-fowl. It is a native of Germany, Italy, &c.; and was first cultivated here in 1596.

“ The Canadian elder is smaller than the common species; the berries also are smaller, and less juicy. This flowers from June to August: it was introduced into England in 1768.

“The women of Scotland, from the bark of the elder, or *arn tree*, as it is there called, the juice of rag-weed, and a few other productions of the country, make dyes for their tartans, &c., as various and as vivid in colour as the English dyers can make with their foreign drugs.”

“Is the wood of the elder of any service as timber, Uncle Ben?” said Thomas.

“No : it is, in fact, almost all pith. I dare say you have seen boys’ pop-guns made from a straight piece of elder, with the pith bored out?”

“Oh, yes, Uncle Ben,” said Harry. “I have often wondered what kind of wood it was. Will you cut me a piece that will do to make one?”

“Then lend me your pocket-knife, and I will soon get you a good piece.”

“Take care that you do not cut yourself, Uncle Ben,” said Frank.

“I am always very careful,” said his uncle ;

“and if you will look how I cut it, you may learn how to prevent an accident to yourself. You see I hold the branch in my left hand, and with the knife in my right, I cut from me; so that if it slips, it slips away from, not towards, me. A very good plan, is it not?”

“It is, indeed, a capital plan,” said Thomas. “I once wounded myself very severely, in cutting a branch that the gardener had taken off the vine-tree, by drawing the knife towards me.”

“I am afraid, boys,” said Uncle Ben, “that you will be very sorry at what I am going to tell you. We have gone through all the timber trees which grow in England!”

“Have you, indeed, Uncle Ben,” said Frank, “what a pity it is that we shall be obliged to discontinue our rambles.”

“But, uncle,” said Frank, “you have not told us anything of the fruit trees.”

“ Why, no ; that is a different part of the subject. But there are a few, the timbers of which are very useful ; so I will give you a short account of them as we proceed on our way homeward.

“ The common crab tree, which grows wild almost all over England, becomes a considerable tree. When in good soil, the fruit attains the size of a small apple, and is used for feeding swine. The timber is hard and compact, answers remarkably well for turning, and for the working parts of machinery ; and the shoots make stout walking-sticks. In Worcestershire and Herefordshire, there are numbers of crab trees that produce vast quantities of fruit. The sour juice is made into verjuice.

“ The wood nearest in toughness to the crab, is that of the apple, which grows in England and all the colder climates.

“ There are many old apple-trees in the king-

dom. At Horton, in Buckinghamshire, where Milton spent some of his earlier years, there is an apple-tree still growing, under whose branches the poet was accustomed to sit. And upon the low roof of the church at Rumsey, in Hampshire, there is an apple-tree still bearing fruit, which is said to be two hundred years old.

“ There are more than twelve hundred kinds of apple-trees ; the timbers of which are very much alike, though the fruit is in every kind different.

“ In Herefordshire and Worcestershire, immense orchards of apple-trees are grown, for the sake of the fruit, which is used for cider. This cider is sent to the East and West Indies, and America ; and is there sold at a higher price than wine fetches in England. The wood of the apple is used for the same purposes as the crab.

“ The pear grows to a considerable size. There is a specimen at Restalrig, near Edinburgh, which,

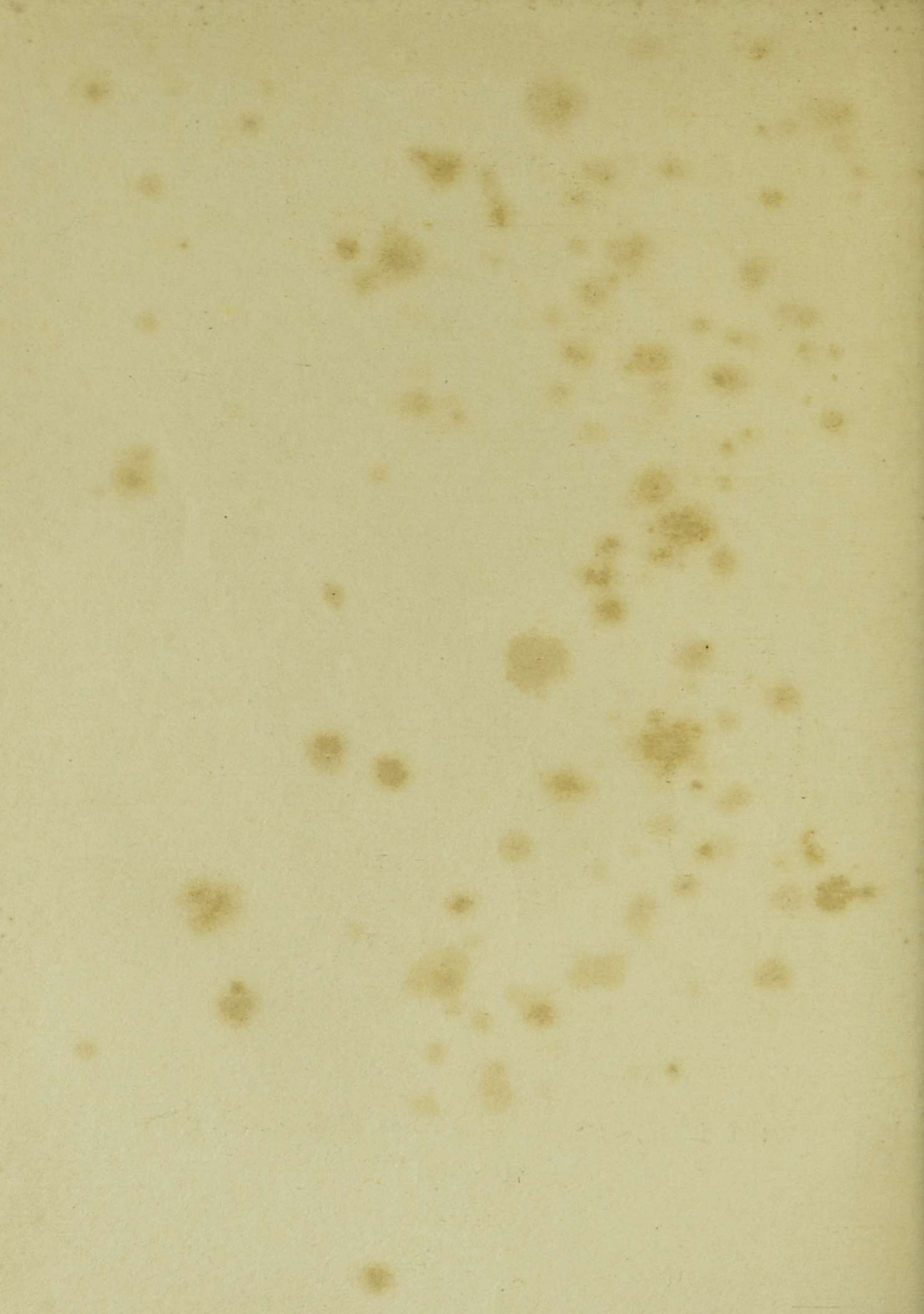
in 1799, at two feet and a half high, measured twelve feet in girth. The wood is light, smooth, and compact ; and answers well for carving, for picture-frames, the handles of tools, and wooden spoons and dishes. It is much firmer than that of the apple ; and it is much less liable to be attacked by insects, or to decay. In some of the old orchards, where the apple-trees have wholly disappeared, the pears are in full vigour, and bear abundantly. There are about six hundred varieties of the pear.

“ The plum tree is a native of Europe, and also of Asia ; and grows wild in the hedges in some parts of Britain. There are about three hundred varieties of it. The plum tree attains a considerable height and bulk. The wood is close and strong ; used for the same purposes as the crab ; and the bark may be used for dyeing yellow.

“ The cherry is a native of the temperate coun-



WILD BLACK CHERRY. Leaves, Flowers, and Fruit.



tries : of England, Asia, and America. In Kent, they are remarkably fine ; and the cherry orchards are celebrated. There are as many as two hundred and fifty varieties of this tree cultivated in England. The wood is very close, and of a very beautiful colour, and well adapted for the handles of tools. It takes a fine polish, and is not liable to split. None of the cherry trees grow to be very large ; but I have frequently seen them two feet in diameter at the root.

“ These are all the fruit trees of whose timber use is made in the manufactures. I have a poem addressed to the forest trees, which I should like you to hear, before I bid you farewell :—

“ ‘ THE FOREST TREES. ’

‘ Up with your heads, ye sylvan lords,
Wave proudly in the breeze,
For our cradle bands and coffin boards
Must come from the forest trees.

- ' We bless thee for thy summer shade
When our weak limbs fail and tire ;
Our thanks are due for thy winter aid,
When we pile the bright log fire.
- ' Oh ! where would be our rule on the sea,
And the fame of the sailor band,
Were it not for the oak and cloud-crowned pine
That spring on the quiet land ?
- ' When the ribs and masts of the good ship live,
And weather the gale with ease ;
Take his glass from the tar who will not give
A health to the forest trees.
- ' Ye lend to life its earliest joy,
And wait on its latest page ;
In the circling hoop for the rosy boy,
And the easy chair for age.
- ' The old man totters on his way
With footsteps short and slow ;
But without the stick for his help and stay
Not a yard's length could he go.
- ' The hazel twig in the stripling's hand
Hath magic power to please ;
And the trusty staff and slender wand
Are plucked from the forest trees.

‘Ye are seen in the shape of the blessed plough,
And the merry ringing flail ;
Ye shine in the dome of the monarch’s home,
And the sacred altar rail.

‘In the rustic porch, the wainscoted wall,
In the gay triumphal car ;
In the rude-built hut, or the banquet hall,
No matter !—there ye are !

‘Then up with your heads, ye sylvan lords !
Wave proudly in the breeze ;
From our cradle bands to our coffin boards,
We’re in debt to the forest trees. ’ ”

“ We should not know what to do without them,
Uncle Ben,” said Frank.

“ Indeed we should not,” replied his uncle.
“ We have now been, my dear nephews, eight delightful rambles ; we have inquired into the uses, the appearance, and occasionally the value of all the English timber trees. Do you think you have derived instruction and benefit while we have sat under the trees, or walked through the fields and lanes, or by the river-side ? ”

“ Oh yes, Uncle Ben,” said Thomas, “ we have a great deal, I am sure.”

“ I think so too ; for when attention is paid it cannot be otherwise. You may observe in all these productions great wisdom and power displayed by the Creator of them. There is a fable in which a man is described as complaining that so large a fruit as the gourd or melon should grow on a plant so small, that it has not power enough to hold it from the ground, while the great oak, which was so strong, had nothing to support but small acorns ; this man, being very hot and fatigued, shortly afterwards laid himself down to sleep under the oak, whose branches shaded him from the sun ; after a little time he was suddenly awoke by an acorn which fell on his face ;—he jumped up, ‘ Ha !’ said he, ‘ how foolish was I to complain ! if the oak bore so large a fruit as a gourd, and that had fallen on me, it would have killed me ; whereas I

have received no hurt.' So, in every thing else, nothing is so absurd as to find fault. Rest assured, my dear boys, every thing has been done for the best. There is a God above, without whose knowledge not a hair of your head is injured, nor a sparrow falleth to the ground.

“ I am now going on a long journey ; should I return, it is possible we may still enjoy ourselves, while you gain instruction in more rambles. There are many other things which you have yet to learn, and which it will give me great pleasure to do my part towards teaching you. But should I not return, you will always, I hope, remember Uncle Ben, and our rambles. Farewell ! ”

THE END.

PUBLISHED BY ADAM SCOTT,

(LATE SCOTT AND WEBSTER),

CHARTERHOUSE - SQUARE,

AND OBTAINED ON ORDER FROM ANY BOOKSELLER.

The Sixth Edition, with 155 engraved Figures, price 10s. 6d.

Withering's Arrangement of British Plants,
according to the Linnean System. Corrected and Condensed;
preceded by Instructions adapted for persons commencing the
Study of Botany; and an Appendix containing the ARRANGEMENT OF THE GENERA ACCORDING TO THE NATURAL METHOD.
By PROFESSOR MACGILLIVRAY, LL. D. Marischal
College Aberdeen.

This work comprises descriptions of all the Flowering Plants and the Ferns of the United Kingdom, Channel Islands, &c., so full as to enable the young botanist to determine every species that may come in his way, without the assistance of others.

Just published in one thick vol. (672 pages), 12mo. price 7s. bound,

Tytler's Elements of General History,
ANCIENT AND MODERN; with a Table of Chronology.
A new Edition, with considerable Additions to the Author's
Text, including an Outline of Jewish History, and other subjects hitherto wholly omitted), numerous Notes, and a CONTINUATION from the Revolution in 1688 to the present time.
Edited by the REV. BRANDON TURNER, M.A.

"An admirable production as an historical class-book."—*Atlas*.

"The edition before us is superior to its predecessors, since it is not only more accurate, but it contains nearly double the quantity of matter."—*Athenæum*.

"We prefer the additions to the original. Mr. Turner has bestowed more thought and care on his work than professional avocations allowed Tytler to afford. We are bound to state that we could not easily point out a work containing so much historical information in the same space as the present volume."—*League*,

"A volume which we can confidently recommend, whether as a class-book for youth, or as a work of general reference for persons of more advanced years."—*Edinburgh Witness*.

Just published, in fcap. 8vo. (496 pp.), with one engraved plate, and 281 Wood-cuts, Price 6s. in cloth, or 6s. 6d. strongly bound,

1. **Manual of Natural Philosophy:** with Recapitulatory Questions on each Chapter, and a Dictionary of Philosophical Terms. By JOHN L. COMSTOCK, M.D., and RICHARD D. HOBLYN, A.M., Oxon. Author of "A Dictionary of Terms used in Medicine and the Collateral Sciences."

CONTENTS:—1. The Properties of Bodies; 2. Heat; 3. Mechanics; 4. Hydrostatics; 5. Hydraulics; 6. Pneumatics and Steam Engine; 7. Acoustics and Music; 8. Optics; 9. Astronomy; 10. Electricity and Galvanism; 11. Magnetism and Electro-Magnetism.

This Manual is intended as a First Course Text-Book in Diocesan and Proprietary Colleges and Schools, or other Establishments where Students are prepared for the profession of Civil Engineers, the Military and Naval Colleges, and the Universities; also, for first-year Medical Students.

2. **Manual of Chemistry:** with Recapitulatory Questions on each Chapter, and a Glossary and Index. By RICHARD D. HOBLYN, M.A. Foolsap 8vo. with 75 Wood-cuts, price 4s. 6d. in cloth.

"The beginner cannot do better than make himself master of this volume. It may be described as a concise but comprehensive introductory treatise."—*Atlas*.

"This manual is entitled to general praise for the grasp of its subject, the distinctness of its arrangement, the fulness of its matter, and the clearness of its style."—*Spectator*.

3. **Manual of the Steam Engine:** with Recapitulatory Questions on each Chapter, and Index. By R. D. HOBLYN, M.A. Foolsap 8vo. with 4 engraved Plates and 85 Wood-cuts, price 6s. in cloth.

"The description of the various parts of a steam-engine is the most clear and satisfactory we ever met with."—*The Britannia*.

"A work, for cheapness and compactness, extensive range of subject, and competent illustration, we can safely recommend to our readers as the best of the day."—*Railway Magazine*.

4. **Manual of Geology:** with Recapitulatory Questions on each Chapter, 44 Wood-cuts, and coloured Geological Map of the British Islands. By PROFESSOR MACGILLIVRAY, LL.D., Marischal College, Aberdeen. Second Edition, enlarged, foolscap 8vo. price 4s. 6d. in cloth.

"A better and more useful manual we never met with."—*The Age*.

"The author has compressed into his manual as much fact, and that too of a well-selected and well-authenticated kind, as we believe a book of the size could possibly be made to contain—it forms the very best companion which the young geologist can take with him in his rambles."—*Edinburgh Witness*.

5. **Manual of Botany:** comprising Vegetable Anatomy and Physiology, or the Structure and Functions of Plants. With an Outline of the Linnæan and Natural Systems, and Recapitulatory Questions on each Chapter, and a complete Glossary. By PROFESSOR MACGILLIVRAY, LL.D., Wood-cuts, and 214 engraved Figures, fcap. 8vo. price 4s. 6d.

"We conscientiously recommend the present volume as the most accurate and the most useful introduction to the Study of Botany yet published."—*Edinburgh Advertiser*.

6. **Manual of British Birds:** being a short description of those permanently resident, migratory, or only occasional visitants to the United Kingdom, including the essential Characters of the Species, Genera, Families, and Orders. With two Introductions explanatory of the Structure and Form of Birds, and other particulars requisite to compare the objects with their descriptive characters. By PROFESSOR MACGILLIVRAY, LL.D. *Second Edition*, with a Supplement of New Species, and Indices of the Latin and English Names. One thick volume, foolscap 8vo. with 31 Wood-cuts, price 7s. Also, sold separately:—

Part I. containing the LAND BIRDS, fcap. 8vo. 4s. 6d.

Part II. containing the WATER BIRDS, fcap. 8vo. 4s. 6d.

In this work, the essential characters of the Orders, Families, Genera, and Species, are given sufficiently in detail to enable the student to refer an object to its proper place.

SCOTT'S ENGLISH CLASSICS.

In one thick volume, with Portrait of Codrington, and Vignette,
third edition, price 5s. in cloth,

British Naval Biography: comprising the
Lives of the most distinguished Admirals, from HOWARD to
CODRINGTON; with an Outline of the Naval History of Eng-
land, from the earliest period to the present time.

"This is a well-compiled and valuable little volume, containing a sketch of our naval history, with biographical notices of the more distinguished commanders."—*Athenæum*.

"A very useful manual of naval biography, and so compact and moderate in price, that we could scarcely select a book better adapted for the sailor's library."—*Naval and Military Gazette*.

"We are pleased to find that the circulation of this beautiful and compact little book—small only in size—has called for a second edition."—*United Service Journal*.

Uniform with the above, with Portrait of Wellington, and Vignette,
Second Edition, price 5s. in cloth,

British Military Biography: comprising the
Lives of the most distinguished Commanders, from ALFRED to
WELLINGTON: connected by an Outline of the Military His-
tory of England, from the earliest period to the present time.

"A very acceptable companion to the volume of the British Naval Biography. The biographies are impartially written, and the origin and progress of the different wars carefully traced. The book is, in truth, a military library within a small compass."—*Naval and Military Gazette*.

**Bishop Butler's Analogy of Religion, Natu-
ral and Revealed,** to the Constitution of Nature, with two Disser-
tations:—1. On Personal Identity. 2. On the Nature of Virtue.
With an Account of the Character and Writings of the Author,
by Bishop Halifax. Frontispiece and Vignette, 2s. 6d. in cloth.

Mason on Self-Knowledge; and Melmoth's
Great Importance of a Religious Life. Frontispiece and
Vignette, price 2s. in cloth.

SCOTT'S ENGLISH CLASSICS, *Continued.*

Milton's Complete Poetical Works: with Life and Explanatory Notes, by the Rev. THOMAS THOMSON. New Edition, *large type*, with Portrait and Vignette, price 4s. in cloth.

Milton's Paradise Lost: with Critical and Explanatory Notes, by the Rev. THOMAS THOMPSON. New Edition, *large type*, with Portrait, price 2s. 6d. bound for School use.

The text has been revised for this edition, the punctuation particularly attended to, and the speeches marked by inverted commas.

Burns' Complete Poetical Works: with Explanatory and Glossarial Notes, and the Life by JAMES CURRIE, M.D. Price 4s. in cloth.

This edition contains the whole of the poetry comprised in Allan Cunningham's edition, as well as some additional pieces; and such notes have been added as are calculated to illustrate the manners and customs of Scotland.

Cowper's Complete Poetical Works; including the Hymns, Translations from Madame Guion, Milton, &c. With a Memoir by the Rev. HENRY STEBBING, D.D. One thick volume (324 pp.). Price 5s. in cloth.

This is the only edition printed in the classic size containing the Drama of 'Adam,' which extends to upwards of *Five Thousand Lines*.

Cowper's Poems. With the Memoir by the Rev. DR. STEBBING. Price 2s. 6d. in cloth.

Cowper's Poems. Part II. Containing Translations from Madame Guion, Translations from Milton, Hymns, and Minor Poems. Price 2s. 6d. in cloth.

Thomson's Seasons and Castle of Indolence, with Life. Price 2s. in cloth.

In 12mo. with numerous Figures, price 9s. in cloth,
Elements of Physicks. By THOMAS WEBSTER,
 M. A., of Trinity College, Cambridge; and Secretary to the
 Institution of Civil Engineers.

This work is intended for private tuition, or to be read with a tutor, and as a text-book in a course of lectures. It is written in clear and concise language, though in a great measure divested of mathematical technicalities, and "on a plan calculated to lead the student regularly through the various subjects, and to engender the habit of systematising and of arranging his knowledge."

"It merits considerable praise for simplicity of style and felicity of illustration."—*Athenæum*.

Lately published, containing 248 pages, price only 2s. 6d. bound,
Turner's New English Grammar; in which
 the principles of that science are fully explained, and adapted to the comprehension of young persons; containing a complete Series of Exercises for Parsing, for Oral Correction, and for Writing; with Questions at the bottom of the page for the Examination of Pupils. By the Rev. BRANDON TURNER, M.A.

"As grammar is a practical art, it is the plan of this work to bring every doctrine which has been learned into immediate and constant application: and Parsing, which is so essentially necessary in grammatical instruction, commences immediately after the first lesson of Etymology. The pupil is then progressively conducted through all the primary definitions and rules of grammar; and if this be performed according to the order prescribed, it cannot fail to render them perfectly familiar, and of easy application, so as to secure his farther progress. The same plan has been followed in Syntactical Parsing; and it is hoped, that the importance of such a method of instruction will particularly commend the work to teachers of youth. A series of questions has been appended at the foot of the page for the examination of classes, and the definitions and rules have been so expressed as to supply the answer, which the pupil should be accustomed to recite with clearness and fluency."—*Preface*.

In one thick volume, 12mo. with 22 plates, bound in cloth, price 6s.
The Surprising Adventures of Robinson
Crusoe. Complete Edition. With a LIFE OF DEFOE.

"Was there ever any thing written by mere man that the reader wished longer, excepting Robinson Crusoe, Don Quixote, and the Pilgrim's Progress?"—*Dr. Johnson*.

