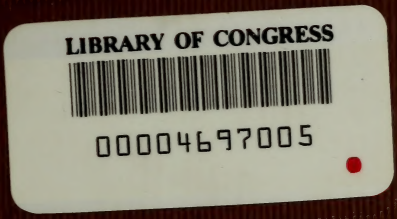
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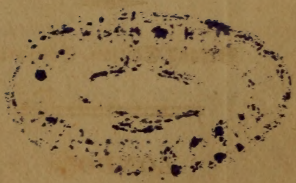
THE

WOODLAND COMPANION;

ILLUSTRATED WITH PLATES.



THE
WOODLAND COMPANION;

OR, A

BRIEF DESCRIPTION

OF

BRITISH TREES.

WITH SOME ACCOUNT OF THEIR USES.

BY THE

AUTHOR OF EVENINGS AT HOME.

ILLUSTRATED WITH TWENTY-EIGHT PLATES.

Welcome, ye shades! ye bowery thickets, hail!
Ye lofty pines! ye venerable oaks!
Ye ashes wild, resounding o'er the steep!

THOMSON.

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Second Edition, Corrected.

LONDON:

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1815.

SD385
A29

Whittingham and Rowland, Printers, Goswell Street, London.

ADVERTISEMENT.

THE confined knowledge which young persons, and even those of advanced age, are usually found to possess of the noblest products of the vegetable creation, the trees which compose our woods and decorate our parks and pleasure-grounds, suggested to the writer that a brief description of them, in the form of a pocket-companion of the rural walk, might be acceptable. But as words alone would be inadequate to enable any one not an adept in botanical science to ascertain the several species, he has added a set of plates copied from the excellent figures subjoined by Dr. Hunter to his valuable edition of Evelyn's Sylva. In these the minute parts illustrative of the Linnæan System have been omitted, as it was his purpose only to assist the common observer in acquiring a visual knowledge of each subject.

J. A.

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THE

WOODLAND COMPANION.

THE OAK.

QUERCUS ROBUR.—*Pl.* 1.

* *Fructification.* Barren flowers in a loose catkin, each consisting of a bundle of chives, from five to ten in the same cup.

Fertile flowers in a bud on the same tree, each having an oval seed-bud, which becomes an acorn.

Specific character. Leaves deciduous, oblong, broadest towards the end, with sharp indentations and rather blunt angles.

THE oak stands at the head of British timber-trees, as well on account of its utility, as of the grandeur and majesty of its figure. It

* In this, and all the future instances, the *fructification* is descriptive of the genus, or family, of the tree treated of, according to the Linnæan system; the *specific character* relates to the particular species or kind which is the subject of the article.

a. Male catkin.
b. Female flowers.
c The Nut.
d. The Cup.

Oak.

arrives at a bulk equal, if not superior, to that of any other tree of the forest; and by the vast arms which it throws out on every side, it forms a mass which fills the eye of the spectator, and impresses him with gigantic ideas. Its rugged bark and jagged deep-green leaves add to its character of rustic and masculine strength.

The oak most delights in a rich strong soil, in which it strikes its roots to a vast depth. It loves hilly rather than boggy ground, and thrives best in large plantations. It is injured by cropping; whence may be estimated the mischief annually done to this noble tree, by the custom of cutting large branches for the celebration of the 29th of May. It forms the largest head, and spreads in the most picturesque figure, when growing singly, as in parks and ornamental grounds; but it rises with a tall and straight trunk only in woods and close plantations.

The uses of the oak tree are very various and comprehend almost every part of it. The acorns (which, in common with the nuts of other timber-trees, bear the name of *mast*) are said to have been one of the earliest foods of mankind; and in some of the warm climates they are still in use for that purpose. With us they are valued as the food of swine, of which large droves are sent to fatten in the oak woods in this kingdom, during some weeks in autumn, when the ripe acorns begin to fall. Squirrels and other small quadrupeds also partake of the repast, and lay up acorns for their winter store.

Every part of the oak abounds in an astringent juice, which is applied to various purposes. The bark is particularly valuable on this account, which renders it the chief material for tanning leather. Oaks growing in hedge-rows, which seldom arrive to the size of timber-trees, owe great part of their value

to their bark. Before it is used, it is ground to powder; and the infusion of it in water is by the tanners termed ooze. The small twigs, and even the leaves, of the oak may be applied to a similar purpose. Galls, which are an excrescence formed in the warm countries upon the leaves of a species of oak, by means of an insect, are some of the strongest astringents known, and are much used in dyeing, on account of their property of striking a deep black, with the addition of vitriol of iron. The oak-apples, (as they are improperly called) formed in the same manner upon our trees, possess a similar property, in a smaller degree. Oak saw-dust is the principal material used in dying fustians. It gives all the varieties of drab colours and shades of brown, accordingly as it is managed and compounded.

But it is by the use of its wood that the oak has acquired its chief fame, and especially

for the important purpose of ship-building. This has made it so peculiarly the favourite of England, to whose naval glory it is supposed materially to have contributed. Thus Pope, in his Windsor Forest, speaking of vegetable treasures, says,

> Let India boast her plants, nor envy we
> The weeping amber and the balmy tree,
> While by our oaks the precious loads are borne,
> And realms commanded which those trees adorn.

Oak-timber is fitted for this purpose, by its strength and durability, and also by the property of not readily splintering, a circumstance of much consequence since the invention of cannon. Ships of war, therefore, if not entirely built of oak (which from the present scarcity of that timber is seldom done) have always their sides planked with it. The crooked pieces of this wood procured from the bend of the branches are also used for the *knees*, by which the planks are held out and

supported. Oak-timber is likewise preferred for many other services of strength. In house-building it is used for door and window-frames, and for wall-plates. When more plentiful, floors and stair-cases were also made of it. In machinery, no other wood is equal to it where a great stress is to be borne, as in mill-work, steam-engines, and the like. It is used for the bodies of carts and waggons, also for gates, posts, and ladders. In the country it is a common material for furniture, such as tables, bedsteads, and chests of drawers; its durability being thought a compensation for the difficulty of working it. The coopers employ it for their largest vessels, and for well-buckets and water-pails.

The oak may be termed not less the poet's tree, than the artisan's. Some of the first poets, ancient and modern, have chosen it as an object either of direct description, or of simile; and that, not only in its flourishing

state, but in its decay. Thus Lucan, in some very fine lines, has made an aged oak the comparison of Pompey the Great, at the time of his contest for power with Cæsar, when, being little more than the shadow of his former fame, he still excited awe by the remains of declining grandeur. Our Spenser has given an original picture of the same kind in the fable of the Oak and the Briar, in his Shepherd's Calendar, which, as being of true English growth, I shall copy.

There grew an aged tree on the green,
A goodly oak sometime had it been,
With arms full strong and largely display'd,
But of their leaves they were disarray'd:
The body big and mightily pight,
Thoroughly rooted, and of wondrous height;
Whylom had been the king of the field,
And mochel mast to the husband did yield,
And with his nuts larded many swine;
But now the grey moss marr'd his rine,
His bared boughs were beaten with storms,
His top was bald and wasted with worms,
His honour decay'd, his branches sere.

February.

A more exact visible representation of the same object cannot be given, than by the figure of the old oak of Cowthorpe, Yorkshire, which measures sixteen yards in circumference within three feet of the ground, in Dr. Hunter's edition of Evelyn's Sylva.

THE BEECH.

Fagus Sylvatica.—*Pl.* 2.

Fructification. Barren flowers in a kind of catkin, each consisting of about twelve chives in a cup. Fertile flowers on the same tree, in a bud, changing into a hairy capsule with four valves and two seeds.

Specific character. Leaves oval, indistinctly serrated. Bark smooth, white.

The beech is one of the most stately timber trees, and composes large woods in some parts of this country. It particularly delights in a chalky soil, where it will flourish and arrive at a great size, though the land has all the appearance of barrenness. When standing singly, or at large distances from other trees, it spreads in a round form to a wide extent, and forms a deep mass of shade; but when drawn up in close plantations, it rises to a great height,

Beech

a. Male catkin
b. Female Flower
c. Capsule opening
d. The Nuts

with singular elegance and airiness. Its leaves are of a pleasant green, and many of them remain on the trees during winter, after turning brown. No verdure, however, will thrive beneath its shade. The smoothness of its bark has from ancient times tempted the rural lover to carve the favourite name upon it; a custom recorded in various passages of the poets; and the opening of Virgil's first Eclogue represents the musing shepherd as reclining under the shade of a spreading beech.

This is one of the glandiferous or mast-bearing trees. Its nuts, when eaten raw, are apt to occasion giddiness and head-ache, but, when thoroughly dried and powdered, are said to make wholesome bread. They, are, however, chiefly the food of deer and swine, and of squirrels, dormice, and other small quadrupeds, which are numerous in the beechen woods. An oil expressed from them is used in some countries in place of butter.

The wood of the beech is brittle, and apt to decay; but, being easily wrought, it is much used for various domestic purposes. The poets, who celebrate the simplicity and frugality of the early ages, speak much of the beechen cups and bowls, some of which received an extraordinary value from the hand of the carver. In our days, beech is a common material of the turner and cabinet-maker; the former using it for his larger ware; and the latter, for common chairs and other articles of furniture. It is, indeed, almost the only English wood employed by the London cabinet-makers. Its lightness causes it to be chosen for the handles of tools; and it is split into thin scales for band-boxes, sword-scabbards, and the like. It is a common wood for fuel, and, in some counties, is regularly grown in plantations for that purpose. The dried leaves of the beech make a very good stuffing for mattresses.

THE CHESNUT.

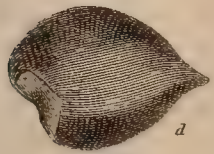
FAGUS CASTANEA.—*Pl. 3.*

Fructification. As the beech.

Specific character. Leaves spear-shaped, with sharp serratures; naked underneath.

THIS tree is usually called the *Spanish Chesnut*, as growing in the greatest perfection in Spain and others of the warm countries in Europe. Many, however, think it an original native of this island; at least it arrives to the full bulk of a timber tree in our woods and groves. The appearance of an aged chesnut is striking and majestic. It throws out arms equal in size to those of the oak, and they often shoot in an angular manner, and thwart each other, so as to produce an uncommon

a. Male ca
b. Female B
c. Capsule.
d. Nuts.



a. Male catkin.
b. Female Buds.
c. Capsule. opening
d. Nuts.

Chesnut.

effect. The deep furrows of the rugged trunk sometimes form a kind of net-work by interlacing. The branches are richly clothed with long jagged leaves, of a pleasant green; and the head is massy and spreading. In autumn the leaves fade to a gold yellow, affording a very conspicuous variety of tinge in the woods. Few trees arrive at greater longevity. A chesnut at Tortworth, in Gloucestershire, is proved to have stood ever since the year 1150, and to have been then remarkable for its age and size. The chesnut tree thrives in almost all soils and situations, though it succeeds best in rich loamy land. Nothing will grow beneath its shade.

Among the mast-bearing trees this may be reckoned the most valuable, since its nuts, by their sweet and farinaceous quality, are rendered good food for man, as well as for other animals. The chesnuts cultivated for their fruit are usually grafted ones, called by the French

marronier; and in many parts of the south of Europe they afford great part of the sustenance of the poor, who make bread of their flour. They are also eaten as a delicacy at the best tables, either roasted or stewed. In this country the fruit of the chesnut is small, and seldom comes to maturity; it is therefore left to the hogs and squirrels.

The wood of the chesnut is strong and durable, and is used for most of the purposes in which oak is employed. Some of the oldest buildings in London are said to be timbered with chesnut. The trunks, however, are often found decayed at the heart when they appear sound externally; and the wood on working is apt to turn out brittle, and to separate in roundish masses, which fault is termed being *cupshakey.* It is preferable to any for making tubs and vessels to hold liquor, as not being liable to shrink after being once seasoned. The principal use of chesnut wood among

us is for hop-poles, of which it makes the straightest, tallest, and most durable. Being cut at an early age for this purpose, it is rare to see large chesnut trees in our woods; but they are frequent ornaments of our parks and pleasure-grounds.

THE ELM.

Ulmus Campestris.—*Pl.* 4.

Fructification. Flowers in clusters, each having about five chives, succeeded by an oval bordered capsule, containing a single roundish flattened seed.

Specific character. Leaves doubly serrated, unequal at the base. Bark of the trunk cracked and wrinkled.

The common elm is a large timber-tree of great beauty and use. It grows to a great height, and at the same time, if permitted, throws out expanded arms, so as to cover a large extent with its shade. Hence it is often planted singly or a few together in village greens, where it affords both a majestic object and a pleasant summer shelter. The elm is, however, often seen trained to a vast height with a single naked trunk, which mode

a

b

a. A Branch in Flower.
b. A Seed.

Elm?

of rearing destroys its beauty, though it better fits it for a particular use. In this state it is very common in hedge-rows, especially in the neighbourhood of London. Elms are not frequent in woods or forests, but are generally planted in avenues or in other artificial situations. The diversity in the form and site of elms is agreeably sketched by Cowper, the poet, who, of all others, viewed natural objects with most taste and correctness. He first mentions them as growing by the river's side.

> ——————— There, fast rooted in his bank
> Stand, never overlooked, our favourite elms
> That screen the herdsman's solitary hut.
>
> *Task*, b. 1.

Then they are seen encircling a cottage upon a hill.

> 'Tis perch'd upon the green-hill top, but close
> Environ'd with a ring of branching elms
> That overhang the thatch. *Ibid.*

Next, they form a walk or avenue.

——— The grove receives us next;
Between the upright shafts of whose tall elms
We may discern the thresher at his task. *Ibid.*

He also notices its hue, as of a deeper green than the ash.

The elm best loves an open situation and a black clayey soil. It bears transplantation well. It does not injure the grass beneath it; and its leaves are agreeable to cattle, and in some countries constitute a considerable part of their food. The ancients made great use of elms properly trimmed as props or supports for their vines; and the poets frequently allude to the *marriage* of these dissimilar plants, and the aid derived to the weak and fruitful vine by twining round the strong stem of her husband elm.

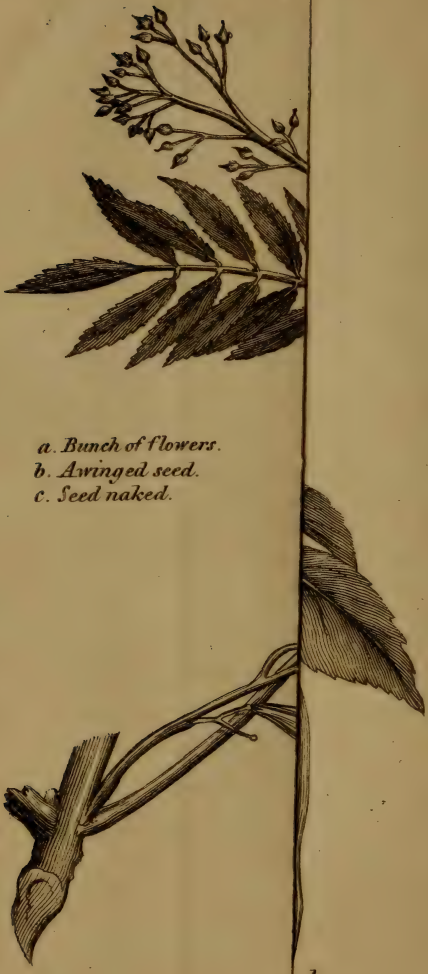
The wood of the elm is hard and tough, and useful for a variety of purposes. It is

particularly serviceable for occasions which require its being kept constantly wet; as in the keels and planking beneath the water-line of ships, mill-wheels and water-works, and especially for water-pipes, the great demand for which is the cause of its frequency about London, and of the practice of training it without branches to a tall straight trunk, which may admit of boring in long pieces. It is likewise used for axle-trees, naves, gate-posts and rails, floors, dressers, blocks, &c. and it is very fit for the carved and ornamental works belonging to architecture.

There are several varieties of the elm, differing in the roughness and smoothness of their leaves, and manner of growth. A dwarf kind is employed for making tall hedges or screens in gardens, or nursery grounds.

A distinct species of elm, growing mostly in the North of England and Scotland, is

that called the *Wych hazel* (Ulmus montana) from the resemblance of its leaves to those of the hazel. It is smaller and more branchy than the common elm; its boughs are more depending, and its leaves and seeds much bigger.



a. Bunch of flowers.
b. Awinged seed.
c. Seed naked.

b

THE ASH.

Fraxinus Excelsior.—*Pl. 5.*

Fructification. Flowers with chives and pointals upon some trees, with pointals only upon others. Two chives in each flower. Seed-bud oval, compressed, changing into a long membranaceous seed-vessel, containing a single seed.

Specific character. Leaves generally winged, consisting of four or five pair of small ones, serrated, with an odd one at the end.

The ash is a tall tree, having a light thin foliage, which gives it a graceful appearance, especially when contrasted with trees of greater mass and depth of shade. It flourishes most in woods, but will also thrive well in good soils upon open ground. It runs its roots a great way near the surface; which quality, together with

a. Bunch of flowers.
b. Awinged seed.
c. Seed naked.

Ash.

the destructive property of its drippings, renders it injurious to herbage, and still more to corn. When growing near water it sometimes hangs down its boughs like the weeping willow. No tree is so often met with in ruins and upon ancient walls, probably on account of the readiness with which its winged seeds are borne by the wind. It insinuates its roots far into the crevices of these old buildings, and thereby becomes an instrument of the destruction of what affords it support. In like manner it fastens upon loose slaty rocks, and decorates them with its verdure. It is one of the latest trees in coming into leaf, and loses its leaves early in autumn. The bunches of long skinny seeds, called keys, on the fertile trees, have a singular appearance. It is observed that while some ash-trees bear great quantities of keys yearly, others seem never to bear any. The former, however, are naked of leaves and unsightly; whereas the latter abound in foliage, and are pleasing objects.

The bark is smooth and light-coloured; the leaves dark green. A well grown ash is a handsome and elegant object, though all may not agree with the Roman poet in giving it the prize of beauty above all the natives of the forest. There are few which excel it in utility; for its wood, next to that of the oak, is employed for the greatest variety of purposes. Thus our Spenser, mentioning the particular uses of a number of trees, characterises the ash as

——————— for nothing ill.

It may be peculiarly termed the *husbandman's tree;* for it is one of the principal materials in making ploughs, harrows, waggons, carts, and various other implements for rustic use: hence a proportional number of ash-trees should be planted in every farm. The toughness of its wood rendered it a favourite with the heroes of old for the shafts of their potent spears; whence it is poetically termed "the martila

ash." With us it is much employed in poles for various purposes, and also in spokes of wheels, tool-handles, and the like. Dairy utensils are mostly made of ash. Its loppings make good fuel, and it has the quality of burning when fresh as well as dry, and also with little smoke. Its ashes afford good pot-ash. The bark of the ash has an astringent quality, and is used in tanning calf-skin. Its leaves are eaten by cattle.

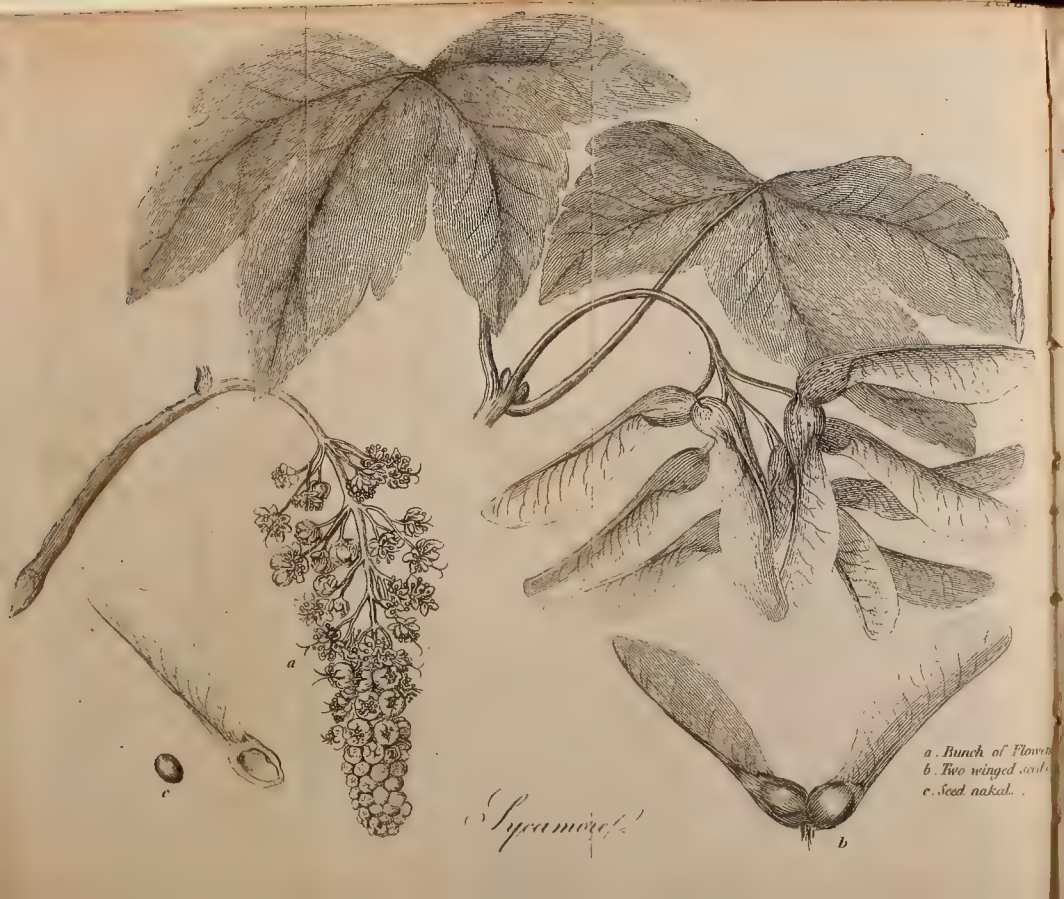
THE MAPLE.

ACER CAMPESTRE.—*Pl. 6.*

Fructification. Flowers, fertile and barren upon the same tree: the chives in both, eight in number. In the fertile, the seed-bud changes into two capsules united at the base, and terminating above in large membranous wings, with a single seed in each.

Specific character. Leaves lobed, blunt, notched.

THE maple is a tree of no great figure, and with us chiefly grows in thickets and hedges as an underwood. It may, however, be trained to a considerable height. Its wood is soft and fine grained, and is excellent for the turner's use, who can bring it to an almost transparent thinness. It excels beech for the purpose of making cups, dishes, and the like; and is often mentioned by the poets as the


a
c
b
a. Bunch of Flowers
b. Two winged seed
c. Seed naked.
Sycamore

material of these utensils in rustic and simple life. The beautiful variegation of its knots, however, has given it value in ornamental works; and the ancient Romans, for their luxury of curiously-veined tables, prized the maple next to their famous citron-wood. Musical instruments are also frequently made of maple. This tree grows very full of branches, which, from the opportunity they give of the lodgment of the rain-water, is probably the cause of that disposition to internal decay of which Spenser accuses it:

—— the maple, seldom inward sound.

Cowper describes it as

—— glossy-leaved, and shining in the sun.

Its bark is furrowed and spungy, like cork.

a. Bunch of Flow
b. Two winged see
c. Seed naked.

THE SYCAMORE.

ACER PSEUDO-PLATANUS.—*Pl.* 7.

Fructification. As the Maple.
Specific character. Leaves with five lobes, unequally serrated. Flowers in bunches.

THIS species grows to a larger size, and is more sightly than the common maple. The name Sycamore, (Wild Fig), is an improper one, and that of Greater or Broad-leaved Maple is more suitable. The Latin appellation *Pseudo-Platanus* (False Plane) well expresses its appearance. It is of quick growth, and flourishes best in open places and sandy ground. It is not uncommonly planted in streets, and before houses, on account of its shade. It has also the property of being

a . *Flowers with floral leaf*
b . *Capsule* .
c . *D°. cut transversly* .
d . *Seed* .

The Lime

less injured by the neighbourhood of the sea, and the dashing of the salt spray, than almost any other tree; and hence is often set in rope-walks in maritime towns. It comes early into flower, and usually bears a vast profusion of pendent light-green bunches or catkins, which make a handsome show. The flowers smell strong of honey, and afford much pasture to bees. The foliage of the sycamore soon loses its spring verdure, and changes its hue. Cowper calls it

> ——————— capricious in attire,
> Now green, now tawny, and, ere autumn yet
> Have changed the woods, in scarlet honours bright.

Its wood is soft and very white, and hence proper for the use of the turner, who makes from it bowls, trenchers, and other utensils. From its lightness, it is also occasionally used for cart and plough timber.

If the sycamore is tapped in the spring, it affords a sweetish watery liquor which may be

used to save malt in brewing, and will yield a sugar upon inspissation. Most of the species of the maple, indeed, afford sweet juice; but none so remarkably as the sugar-maple, which is a very common native tree in North America, and from which large quantities of coarse sugar are made by the settlers in the inland parts.

THE LIME.

TILIA EUROPÆA.—*Pl.* 8.

Fructification. Flowers with five petals and many chives; the seed-bud turning to a dry berry, or capsule, having five cells with a single seed in each. Generally, only one seed comes to perfection, pushing aside the rest.

Specific character. Flowers without a nectary, whitish. Leaves heart-shaped, serrated. A floral leaf to each bunch of blossoms.

THE lime or linden is one of the beauties among trees, and is cultivated rather on that account than for its utility. It grows straight and taper, with a smooth erect trunk, and a fine spreading head inclined to a conical form. Its leaf is large, and its bark smooth. In a good soil it arrives at a great height and

a. A bunch of Flowers.
b. The capsule of Nuts.

size, and becomes a stately object. But it is seldom viewed single, and its chief glory arises from society. No tree is so much employed for avenues, and for bordering streets and roads. Some of the straight walks of ancient limes, which modern taste has hitherto spared, are beautiful specimens of the pointed arch made by the intersection of branches, which has been supposed to be imitated in the Gothic architecture of cathedrals. In viewing one of these noble works of nature disciplined by art, who will not exclaim with Cowper,

> Ye fallen avenues! once more I mourn
> Your fate unmerited, once more rejoice
> That yet a remnant of your race survives.
> How airy and how light the graceful arch,
> Yet awful as the consecrated roof
> Re-echoing pious anthems! while beneath
> The chequered earth seems restless as a flood
> Brushed by the wind. *Task*, b. 1.

The lime comes early into leaf, and its ver-

dure is one of the first harbingers of spring beheld in great towns, where it often decorates the squares and public walks. Its flowers are highly fragrant, and are very attractive to the bees, which gather much honey from them. An infusion of them is said to make a pleasant tea. The sap of the tree contains sugar. Lime wood is soft and light, and therefore only fit for uses requiring little strength. It is used by shoe-makers and leather-cutters to cut leather upon, as not being liable to turn the edge of their knives. The closeness of its grain, joined with softness, and the property of not being readily attacked by the worm, has caused it to be chosen by carvers for the rich ornamental work with which churches and palaces were formerly decorated. Mr. Evelyn mentions it as the material employed by the celebrated artist Gibbon for his beautiful festoons and other sculptures. It makes good charcoal for designers. Its inner bark,

soaked in water, yields a fibrous matter fit for ropes and fishing-nets. The Russia mats, and the bark shoes of the peasants, are made of this material.

THE HORSE CHESNUT.

Æsculus Hippocastanum.—*Pl.* 9.

Fructification. Flowers in a long spike, each having five petals, seven chives, and one pointal: seed-bud changing into a spinous capsule of three cells, with two seeds in each, some of which are abortive.

Specific character. Leaves blunt, spear-shaped, serrated, growing by sevens on one stalk, the middle one largest.

This tree, which is originally a native of the East, has not very long been naturalized in England. Its introduction here has been solely owing to its beauty, in which, at the flowering season, it certainly excels every other tree of its bulk that bears our climate. In early spring it puts forth large buds, which burst into verdure among the first greens that enliven the year; and its ample palmated

a. *A bunch of Flowers.*
b. *The capsule or Nuts.*

a. Male catkin.
b. Female D°
c. Seeds in their place.
d. A single Seed.

Hornbeam

leaves have an appearance both uncommon and handsome. Not long after, it puts forth its long upright spikes of white and variegated flowers, generally in such number as to cover the whole tree, and give it the resemblance of one gigantic *bouquet*. No flowering shrub is rendered more gay by its blossoms than this tall tree; hence it combines beauty with grandeur, in a degree superior to any other vegetable of these climates. The head is also shapely and regular in its growth, and well adapted to the symmetry required in walks and avenues. It has the defect of changing and losing its leaves early in autumn, the natural consequence of its early spring verdure. It is also accused of not well resisting tempestuous winds. The wood of the horse chesnut is of little value; it is, however, of some use to the turner. Its fruit or nuts are of a farinaceous quality, but so bitter as to be unfit for human food. Deer are said to be fond of them, and sheep will eat them; and

when boiled, they have been used to fatten poultry. When left to decay, they turn into a kind of jelly, which has been employed like soap in washing linen. The bark has considerable astringency, and may be used for tanning leather.

THE HORNBEAM.

Carpinus Betulus.—*Pl.* 10.

Fructification. Barren and fertile flowers in catkins upon the same tree. The barren, with from eight to sixteen chives in each: the fertile, with two seed buds each, changing into nuts.

Specific Character. Leaves oval, pointed, sharply serrated. Bark smooth, white.

The hornbeam is not commonly found as a timber-tree, though it may be reared for this purpose, and will grow to a great height, with a fine straight trunk. It thrives well upon a cold stiff clay, on the sides of hills, bears lopping and transplanting, and is capable of resisting the wind. It is, however, principally cultivated as a shrub and underwood, and is excellent for forming tall hedges or screens in nursery grounds or ornamental

b
a
a
b
a a Male catkins.
b Female flower.

gardens. It is of quick growth, and has a glossy verdure which is very pleasing to the eye. It keeps its leaves long, and even all the winter when sheltered. The wood of the hornbeam is very white, tough, and strong. It is used for yokes, handles for tools, and cogs for mill-wheels, and is much valued by the turner. The wood is very inflammable, and will burn like a candle, for which purpose it was anciently employed. The inner bark is much used in the North of Europe for dyeing yellow.

a.a Male catkins.
b Female flower.

b
a
a

THE HAZEL.

CORYLUS AVELLANA.—*Pl.* 11.

Fructification. Barren flowers in a long scaly catkin, each flower of eight chives. Fertile flowers on the same tree in buds, distant, each flower with two shafts, the seed-bud changing to a nut.

Specific Character. Leaves oval, serrated, wrinkled; props or stipulæ oval, blunt.

THOUGH the hazel does not arrive at the bulk of a timber-tree, it is on several accounts worth notice among the natives of the forest. Its male catkins, of a yellowish green, are among the first appearances in the year of vegetable expansion, generally unfolding in the month of January. Its fruit-bearing buds make a beautiful show in March, when they burst, and disclose the bright crimson of their shafts. The hazel is met with native in almost every part

a Male Catkin
b Female Flower

of this island, forming hedges or coppices, and thickening the approaches of woods. If suffered to attain their full growth, they shoot into poles of twenty feet in length; but they are usually cut down sooner, in order to form walking-sticks, fishing-rods, stakes, hurdles, and the like, or for burning into charcoal. Hazel-charcoal is preferred to any other by painters and engravers, for the freedom with which it draws, and the readiness with which its marks can be rubbed out. The nuts of the hazel are a generally agreeable fruit. They abound in a mild oil, which may be extracted by expression, and is used by painters for mixing with their colours. Nuts, however, are difficult of digestion, and, when eaten in large quantities, often prove hurtful. They ripen soon after harvest; and Thomson gives an animated picture of the amusement of gathering them, usually termed *nutting*.

Ye swains, now hasten to the hazel-bank,
Where, down yon dale, the wildly-winding brook

Falls hoarse from steep to steep. In close array,
Fit for the thickets and the tangling shrub,
Ye virgins, come. For you their latest song
The woodlands raise; the clustering nuts for you
The lover finds amid the secret shade;
And, where they burnish on the topmost bough,
With active vigour crushes down the tree,
Or shakes them ripe from the resigning husk.
Autumn.

They are a favourite food of squirrels, which lay them up in their winter hoards, and always take care to pick out the best. It is a common observation, that a plentiful year for nuts is the same for wheat.

The filbert is a variety of the common nut, distinguished by a longer fruit, and a thinner skin. It is cultivated in plantations in the Kentish orchards, and yields a valuable product.

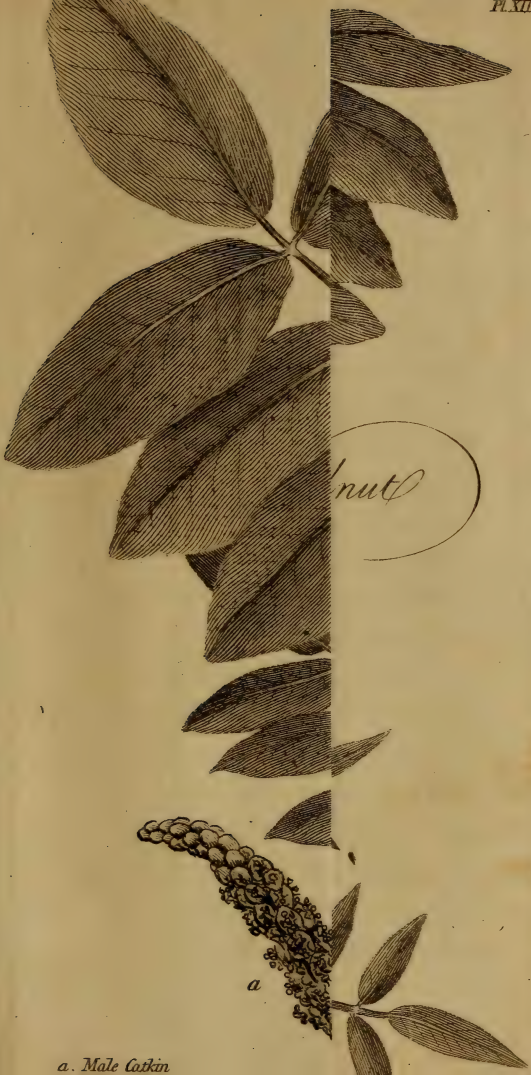
THE WALNUT.

JUGLANS REGIA.—*Pl.* 12.

Fructification. Barren flowers in an oblong catkin, each flower having many chives. Fertile flowers upon the same tree, growing by twos or threes, each succeeded by a large round fleshy capsule containing one nut.

Specific character. Leaves small, oval, smooth, equal, set in pairs with an odd one at the end.

THE walnut, though not a native of our woods, is in many parts planted so freely, and so well perfects its fruit and timber, that it may be considered as fairly naturalized among us. It loves a rich loamy soil, but will grow well on stony ground, if the staple be chalk: hence it is found to thrive on the chalky downs of Surrey, where large plantations of it have been made. The tree arrives at a respectable size, and makes a good figure



a. Male Catkin

Wild Black Cherry.

either set in rows or growing singly, though it has the defect of getting its leaves very late, and shedding them early.

As a timber-tree the walnut was formerly in greater request than at present, when its place is mostly supplied by foreign woods. It has been much used by cabinet-makers for bedsteads, chairs, tables, and bureaus, for which purposes it is one of the most durable woods of English growth; also for wainscots, and stocks for guns. The wood near the root is often beautifully veined, and fit for inlaying and ornamental works. The black Virginia walnut, however, excels our own for these uses. It is for the sake of the fruit that the walnut is chiefly cultivated among us. This is one of the most grateful of the nut kind, and forms a welcome addition to deserts at all tables as long as it continues fresh and moist. It contains much oil, which, like that of the common nut, may be separated by ex-

pression, and is used by painters and varnishers, and, in some countries, also for food, instead of butter. The unripe walnuts, with their green fleshy coat upon them, are commonly used as a pickle. A syrup made with them is a vulgar medicine against worms; and decoctions of the husks and leaves, which are strongly bitter and aromatic, are sometimes poured upon walks and grass plots in order to kill the earth-worms and grubs.

Those singular vagrants, called gipsies, stain their skins of a tawny hue with the juice of green walnut husks.

THE WILD CHERRY.

PRUNUS CERASUS.—*Pl.* 13.

Fructification. Flowers with five petals, from twenty to thirty chives, and one pointal: the seed-bud changing to a pulpy fruit, containing one nut or stone.

Specific character. Umbels of flowers on short foot-stalks: leaves oval-pointed, serrated, smooth, often doubled together.

THOUGH the wild black cherry is not a common tree in our woods, yet it may claim the rank of a native, since it is met with in several counties, of a large size, and propagates itself. Young plants of it are often found within the hollow trunks of old willows, into which the stones have been dropped by birds. Its appearance in spring, when covered with white blossoms, is very beautiful: hence it makes a pleasing ornament in parks and

Wild Black Cherry.

pleasure-grounds, and forms an agreeable variety among other tall trees, few of which make any show with their flowers. It thrives well in light poor land, and particularly loves a sandy soil and elevated situation. The fruit, though small, is pleasant to the taste, and gives a fine flavour to spirits. The wood is hard and tough: it is much valued for hoops of casks; and is also used by the turner and cabinet-maker, and is stained so as to resemble mahogany. It makes excellent stocks for engrafting the garden cherries upon; being, indeed, the original of all the cultivated sorts. The gum which exudes from it is equal in its properties to gum-arabic.

d

c

THE WHITE-BEAM.

Cratægus Aria.—*Pl.* 14.

Fructification. Flowers with five petals, about twenty chives, and two pointals, succeeded by a round berry containing two or four seeds.

Specific character. Leaves oval, unequally or doubly serrated, woolly on the under-side.

This tree has a general whiteness or mealiness in its appearance, which has given it its name. It grows to a moderate size, and loves dry and open situations. It is found on the chalky hills of Kent, Surrey, and Sussex, and also in the mountainous parts of Derbyshire, where it shoots from the fissures of the naked rocks. The fruit is eatable when mellowed by the frosts. The wood is tough, hard, and smooth, and is fit for axles, wheels, walking-sticks, and tool-handles.

b. Berry entire.
c. Do cut transversly.
d. Do cut vertically.

White Beam

THE WILD SERVICE OR SORB.

CRATÆGUS TORMINALIS.—*Pl.* 15.

Fructification. As the former.

Specific character. Leaves with seven angles, the lowermost lobes standing wide.

THIS species, also called the *Maple-leaved Service,* grows in various parts of England, chiefly upon strong soils. In Hertfordshire large trees of it are met with. Its fruit ripens late in autumn, and is then brown; and if kept till soft, acquires an agreeable acid taste, and is eaten; though from the Latin trivial name of *torminalis,* (griping), it may be concluded that it is not very favourable to the bowels. Few of the native fruits of this climate can boast of a much superior quality.

a

a A. Berry

Wild Sc.

a A. Barry

Wild Service

THE HAWTHORN.

Cratægus Oxyacantha.

(Monogyna of *Withering*).

Of this well known species, called also the White-thorn, it is unnecessary to say more by way of description, than that it is distinguished from the rest by its trifid leaves, and by its flowers having but a single pointal. Its fruit, the haw, is like that of the two former kinds, but smaller.

Although the hawthorn is rather a shrub than a tree, it well deserves notice among our foresters. From the closeness of its growth, and its furniture of sharp thorns, it is universally preferred for making live fences or quick hedges; and the peculiar richness of the extensive prospects in England is much owing to the frequency of the enclosures made

by this plant, which affords a delightful verdure. Its flowers, likewise, by the name of May, decorate that month particularly with a profusion of beauty united with fragrance. Its scarlet berries greatly contribute to enliven the winter. The hawthorn, planted singly, acquires a respectable size, and is a fine object in the flowering season. Its wood is tough and strong, and is fit for axle-trees and tool-handles.

THE QUICKEN TREE.

SORBUS AUCUPARIA.—*Pl.* 16.

Fructification. Flowers with five petals; about twenty chives; and three pointals; succeeded by a round berry with three seeds.

Specific character. Leaves winged; seven or eight pair of small ones, spear-shaped, serrated, with an odd one at the end. Flowers white, in large bunches. Berries soft, red.

THIS tree is better known by the name of the *Mountain Ash;* and in the north of England by that of the *Rowan tree.* It is properly a species of the service or sorb. In the southern counties it is generally regarded as a shrub or underwood; but in the north, where it is permitted to grow at pleasure, it arrives at a considerable size. It is chiefly valued as an ornamental addition to plantations, on account

a. A berry cut transversely.
b. Ditto entire.

Quicken

of the elegant lightness of its foliage, and the beauty of its red berries, which remain on the tree during the whole winter. It will thrive in any good soil, but delights most in a hilly situation. The wood is tough and solid, and is valued by the wheel-wright and tool-maker. When bows were in use, it was regarded as next in value to the yew for making those weapons. The berries will make a fermented liquor, and are sometimes added to malt in brewing. When dried and powdered, they afford a kind of wholesome bread. Thrushes are exceedingly fond of them; and in hard winters resort in numbers to the quicken trees, from which they can scarcely be driven away. When the superstitious belief in witchcraft prevailed, the wood of this tree was supposed to be a preservative against its effects.

a. Male catkin.
b. Female D°.
c. D°. discharging its Se

THE WHITE POPLAR, OR ABELE.

POPULUS ALBA.—*Pl.* 17.

Fructification. Male and female flowers upon separate trees. The male in an oblong catkin, each flower without petals, and consisting of eight chives. The female, in a catkin, without petals, having a seed-bud changing into an oval capsule, which contains several small feathered seeds.

Specific character. Leaves rounded at the base, tapering to a point, angularly indented, blackish green above, covered with a thick cottony down beneath.

THIS tree, which grows in woods and hedge-rows, and especially in low moist situations, is very conspicuous from the whiteness of its foliage.

The poplar, that with silver lines his leaf.
Task.

a. Male catkin.
b. Female D°
c. D° discharging its Seed.

White Poplar.

It is a quick grower, and bears cropping well, but its shade is unfavourable to pasturage. The wood is soft and white, and is used for floors, laths, and packing-boxes.

THE BLACK POPLAR.

Populus Nigra.

Fructification. As the former.
Specific character. Leaves trowel-shaped, serrated.

The name of *black* seems given to this species of poplar only in distinction from the *white;* for its leaves are a pleasant green, and the tree has nothing dark in its appearance. The leaves are smaller than those of the preceding, and more angular. The tree arrives at a greater size, and is, indeed, one of the tallest and most stately to be seen, when arrived at full growth. It loves a rich soil in a moist situation, as the banks of rivers and the borders of meadows. The roots run to no great depth in the earth, whence the trees com-

monly lean, and are often blown down in high winds. It is a frequent tree in Lancashire and Cheshire, where the long rows of poplars almost conceal from view the low-seated towns and villages. From its great size, boards are sawn from it very fit for flooring, which have the useful property of smothering rather than flaming, when a lighted coal falls upon them. The wood likewise is not apt to splinter. The bark is light like cork, and serves to buoy up fishermen's nets. Red substances like cherries are sometimes found on the leaves, which are occasioned by the puncture of an insect.

THE ASP, OR ASPEN-TREE.

POPULUS TREMULA.

Fructification. As the preceding.

Specific character. Roundish leaves, angularly indented, and smooth on both sides.

THIS species is remarkable for the constant tremulous motion of the leaves with the lightest breeze, which is owing to the length and slenderness of their foot-stalks. The leaves are smaller than those of the last species. The tree is large, and grows freely in all situations. It is injurious to grass; and its roots spread so near the ground, throwing out numerous shoots, that they suffer nothing else to grow near it. The wood is extremely light, white and soft. Beavers are particularly fond of its bark and young shoots.

Several foreign kinds of poplar flourish well with us, and are introduced into plantations. The *Po* or *Lombardy Poplar* has lately become a great favourite from its quick growth, and the ease with which it is reared in all situations. It is particularly planted in streets and roads for the purpose of a screen; and on the borders of nursery-grounds, to shelter other plants. It grows in a very regular tapering form, its numerous branches spiring upwards into a cone. It makes a handsome figure in full foliage, but has too much of a broom-like appearance in the winter.

a. Male catkin.
b Female D°

THE ORIENTAL PLANE.

Platanus Orientalis.—*Pl.* 18.

Fructification. Male flowers very minute, in globular catkins. Female flowers on the same tree, in similar catkins, changing into balls of seeds, two or three often strung upon one stalk, and hanging downwards.

Specific character. Leaves palmated.

a Male catkin
b Female D°
c Globe of Seeds

Oriental Plane

THE OCCIDENTAL OR VIRGINIA PLANE.

PLATANUS OCCIDENTALIS.

Fructification. As the former.
Specific character. Leaves lobed.

THE plane trees, as might be inferred from their trivial names, are foreigners, and still rather the cultivated growth of our parks and gardens, than the spontaneous product of our woods. They are chiefly valued for their beauty, and the luxuriance of their shade. The oriental kind, originally a native of the warm climates of Asia, was in singular estimation with the ancients, as affording in the highest perfection that verdant canopy which is so grateful to those who enjoy the open air in the heats of summer. It was consecrated as well to the refreshment of the

philosopher in his academic groves, as to the pleasure of the bacchanalian, who held his revels under its shade, and with appropriate gratitude fed its roots with wine. In those countries it grows to be one of the tallest and most spreading of trees. With us it seldom arrives at a capital size, though the smoothness of its trunk, and fullness of its large leaves, render it a striking and conspicuous object. The occidental plane is a native of North America, and is the most common here of the two. Both species delight in a moist situation, and are quick growers. They greatly resemble each other, the difference being chiefly in the leaf, which in the oriental is palmated or fingered like the hand, in the occidental is divided into lobes. They have the property of annually throwing off their bark in scales.

THE BIRCH.

Betula Alba.—*Pl.* 19.

Fructification. Barren flowers in a scaly catkin, each containing four chives. Fertile flowers, on the same tree, in a scaly catkin, each succeeded by a single seed.

Specific Character. Leaves oval, tapering to a point, serrated. Bark white.

This is a tree of rather humble growth, but valuable for clothing soils which are deserted by almost all other trees. Such are the bogs and mosses, frequent in some parts of this kingdom, and still more in some countries of the North, as Sweden, Norway, and Lapland. The watery parts of forests, which scarcely produce any grass, are often covered with a thick growth of these trees; and they will likewise ascend the mountains, and min-

a. Male catkin
b. Female D°

Birch.

a. Male catkin
b. Female D°

gle with fir and mountain-ash. A tourist in Wales speaks with much admiration of the light, airy, pendent birch, which occupies the highest parts of the hills, and shelters the cottages that dimly appear through its foliage. Its white bark contrasts with the black surface of the peat-mosses, and enlivens scenes otherwise the most gloomy and desolate in nature. The leaves are small and elegant; the boughs finely divided into slender twigs. They are subject to a kind of disease, occasioning the branches to throw out a vast number of suckers, in one part, which intermix so as to form a close resemblance of a rook's nest.

The wood of the birch is of little value, and, except for fuel, is scarcely used but for hoops and women's shoe-heels. In the times of archery it was preferred for arrows. "The birch for shafts," says Spenser. On account of its lightness, it is much employed for scaffoldings about London. Its small branches

or twigs are commonly used for besoms. The bark is a very valuable substance to the northern people, who make various utensils of it, and cover their houses with it. It also makes good torches; for it abounds in a resinous quality, which likewise gives it firmness and durability.

The sap of the birch is an agreeably-flavoured, sweetish liquor, well known as the basis of one of our domestic wines. It is, however, necessary to add sugar or honey in order to bring it to ferment properly. This juice is extracted by boring holes in the tree almost to the centre of the trunk, in the spring, as soon as the sap begins to flow. The leaves of the birch possess an agreeable fragrance.

b

THE ALDER.

BETULA ALNUS.—*Pl.* 20.

Fructification. As the birch, except that the female catkin is rounder, like a fir-cone.

Specific character. Fruit-stalks branched. Leaves nearly circular, serrated, clammy.

THIS tree is also a lover of moisture, and flourishes in boggy situations, and by the side of rivers. It may be reared to a large tree; in which state it must have been, in order to have afforded the first material for boats or canoes by its hollowed trunk, as mentioned by Virgil in his Georgics; and when arrived at full size, bears a very close resemblance to the oak in its general appearance. With us it is more commonly planted for coppice-wood, to be cut down every ninth or tenth year for poles.

a. Male catkin.
b. Female D°.

(Alder)

The wood is chiefly valuable for its property of remaining long sound under water; whence it is used for water-pipes, and for piles to be driven into the ground in order to support buildings in boggy situations. It is also employed for shoe-heels, clogs, and turner's work. Every part of the alder has an astringent quality. Its bark gives a brown dye, and is used by fishermen to stain their nets, and by the calico-printers. With the addition of copperas it strikes a black.

THE WHITE WILLOW.

Salix Alba.

Fructification. Barren flowers in a tiled catkin, each having from two to five chives. Fertile flowers upon separate trees, in a catkin, each succeeded by a capsule of one cell, containing several feathered seeds.

Specific character. Leaves spear-shaped, sharp-pointed, serrated, downy on both sides, the lowermost serratures glandular.

The numerous willow tribe are for the most part aquatics. They differ much as to size; but are in general distinguished by the length of their leaves, and slenderness and flexibility of their branches. The white willow is one of those which arrive at the largest bulk. It is common in moist woods and hedges, and on the side of brooks and rivers, the course of which it often marks by its grey foliage, dis-

tinguishable at a distance by the eye of the traveller. The wood of this tree is very white, and takes a fine polish; whence it is in request for milk-pails and other utensils which require peculiar cleanliness. The bark of this and of some other species of willow is astringent, and will tan leather. It has been used medicinally as a substitute for the Peruvian bark in the cure of agues; a property happily suited to the situations in which these trees principally delight.

b

THE CRACK WILLOW.

SALIX FRAGILIS.—*Pl.* 21.

Fructification. As the former.

Specific character. Leaves oval-lanceolate, serrated, smooth with toothed, glandular foot-stalks.

THIS species also grows to a pretty tall tree. Its name is derived from the brittleness of its small branches, which, if struck with the finger, break off at the year's shoot. It grows quickly, and will thrive in most soils. Its leaves are of a shining green on both sides, and of great length; which give it an elegant appearance.

a. Male catkin
b. Female Dº

Crack Willow

THE WEEPING WILLOW.

Salix Babylonica.

Fructification. As the former.

Specific character. Leaves narrow, spear-shaped, smooth, serrated; branches pendulous.

This species is well known to the lovers of picturesque beauty, from that disposition to hang down in long slender branches, which makes it an admirable accompaniment to a still retired piece of water, with the melancholy character of which it is perfectly in unison. In misty weather, drops of water are seen distilling from the extremities of its branches; which circumstance has given it a name, and wonderfully aids its effect. The weeping willow grows

to a large size, and attains a considerable age. One has lately been cut down, planted in his own garden, by the hand of Pope, and said to have been one of the first of its species introduced into the kingdom.

THE SALLOW.

Salix Caprea.

Fructification. As the former.

Specific character. Leaves oval, wrinkled, downy beneath, waved, indented towards the upper end.

This species also grows to a considerable size. It delights in dryer soils than most of the willow tribe, and will thrive on the tops of hills. Its branches are brittle, smooth, and of a dark green. The catkins are very large and white, and much resorted to by bees early in the spring. The flowering branches are gathered by children under the name of *palms*; and carried about on Palm Sunday. The wood of the sallow is used for fuel, and

makes excellent charcoal for gunpowder and drawing-pencils. It is also employed by turners; and of the smaller boughs hurdles are made. The bark is used by some northern people in tanning.

THE OZIER.

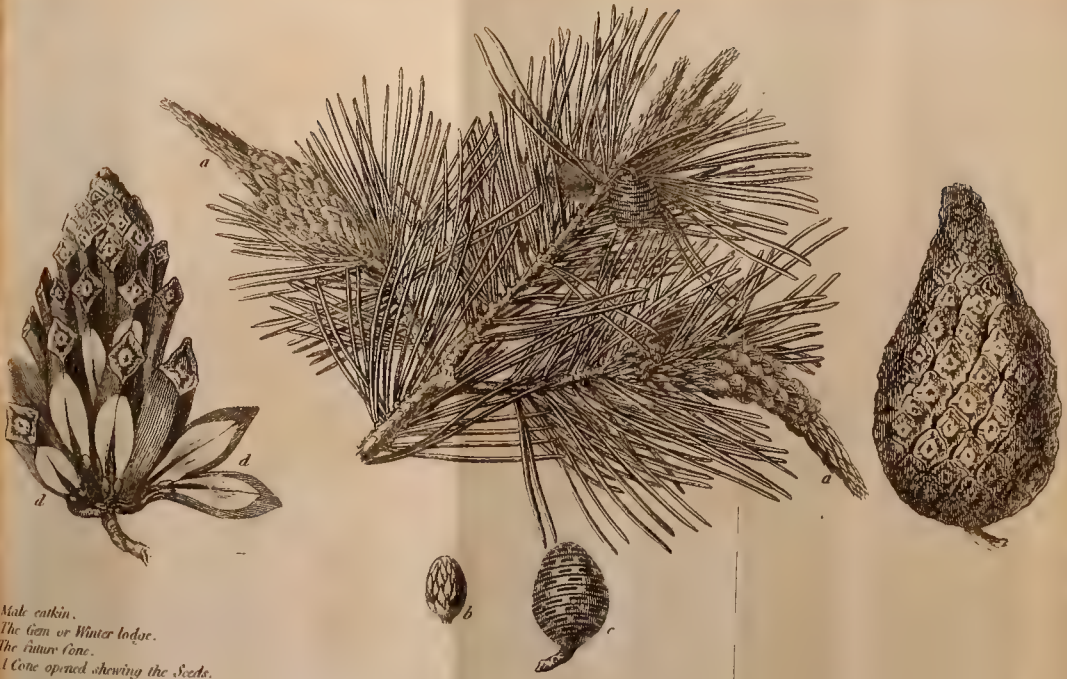
Salix Viminalis.

Fructification. As the former.

Specific character. Leaves very long, narrow, pointed, almost entire, silky beneath; branches rod-like.

This species is the principal example of the shrub-willows, remarkable for their very long and flexible branches, which fit them for being woven into the different kinds of basket-work. The ozier loves a moist situation, and is commonly planted by the sides of rivers and ponds. It covers many of the river-islands of the Thames, and renders very profitable, spots which would otherwise be left waste. It has the further value of strengthening the banks of streams, and pre-

Male catkins.
The Gem or Winter lodge.
The future Cone.
Cone opened shewing the



a Male catkin.
b The Gem or Winter lodge.
c The future Cone.
d d Cone opened shewing the Seeds.

Scotch Fir

venting them from being washed away by the force of the current. It is of very rapid growth, and when properly managed will afford an annual crop of twigs for the basket-maker. There are several kinds of ozier; and some other sorts of willow are trained and cropt for similar purposes, according to the size of twigs required for different works.

There are many other species of willow besides those above enumerated, which, however, in properties all approach them more or less. Some dwarf kinds are met with as far north as almost any vegetables will grow, and dwindle in bulk till they become the very lowest of trees or shrubs.

THE SCOTH FIR, OR PINE.

PINUS SYLVESTRIS.—*Pl.* 22.

Fructification. Barren flowers in bunches, each with many chives united at the tips. Fertile flowers on the same tree in a cone, composed of scales, with two flowers in each; the seed-bud succeeded by a nut having a winged membrane.

Specific character. Leaves growing in pairs out of one sheath; in their first growth solitary and smooth.

THE pine tribe form a large and important family in trees, distinguished by their stiff, narrow, pointed leaves, generally evergreen, and of a dark hue, and scaly cones. Some of them affect mountainous situations; others, bogs and swamps; and they often compose woods of vast extent, clothing barren and desolate regions unfit for human culture.

The species of pine now under consideration is called with us the Scotch fir, because it grows naturally in some parts of the High-

lands of Scotland, perpetuating itself by the seedlings which come up from the fallen cones. It is, however, by no means peculiar to that country, but grows abundantly in the mountainous parts of Norway, Sweden, and Russia, covering the sides of the highest hills, often out of the reach of man. It will thrive in any temperate climate, and delights most in poor sandy soils. When growing in a thick wood or grove, it is drawn up with a straight naked trunk; but in an open sunny exposure it spreads out with wide branches. As only the terminating buds send forth shoots, it will not bear the least clipping. Vast plantations of this tree have been made within the last forty or fifty years in various parts of the island, which will at least answer the purpose of improving the landscape in naked and sterile tracts, though it is suspected that the timber will never be so valuable as that in the natural forests. No wood is at present used among us in a quantity approaching that of the fir; which, under the name of *deal*, is the

principal timber employed about buildings, for flooring, planks, beams, rafters, and the like; also for the upper-deck works of men of war, and for various domestic purposes. It has the advantage of being cheap, light, and easily worked; but it splits readily, and is extremely inflammable. Deals are red, yellow, or white, according to their growth, or the different species of fir whence they are procured. Almost the whole of our consumption comes from Norway, or the countries bordering the Baltic; the firs of our own growth being fit for little more than posts and rails. Those in the native forests of Scotland, indeed, are to be excepted, but these afford a small supply.

Besides the value of their timber, the firs of various species yield the important products of turpentine, tar, and pitch. They abound in a resinous juice, which, exuding from the tree in its natural state, is turpentine. The same, when forced out by a close-smothered

fire, is tar; and this, thickened by boiling, becomes pitch. Rosin is the residuum of turpentine from which the essential oil has been distilled. From all these uses, the fir may be called the *sailor's tree* with as much propriety as the oak. Indeed, the earliest vessels built for navigation were constructed with this material, and in the ancient poets the *pine* is constantly employed as a metaphorical term for a *ship*. Even at present, the cheapness of fir timber in the north of Europe and America causes many vessels to be built of it alone, which have the advantage of swimming light, though they soon decay.

The white inner rind of the Scotch fir is ground to powder and mixed with rye meal in order to make bread in seasons of scarcity, by the poor inhabitants of Sweden and Norway.

Many other species of pine are now become common in our plantations. Of these we shall mention a few of the principal.

THE SPRUCE FIR.

PINUS ABIES.—*Pl.* 23.

Fructification. As the former.

Specific character. Leaves solitary, awl-shaped, pointed, smooth, turned two ways.

THIS is a fine and large tree, growing plentifully in the mountain-woods of Norway, and valuable for its timber, which is said to afford the white deal. From the green tops of this species is made the spruce-beer, so much esteemed in America as a remedy for scorbutic disorders.

Fir

2. Spruce Fir

a. Male catkin

THE SILVER FIR.

PINUS PICEA.—*Pl.* 24.

Fructification. As the former.

Specific character. Solitary notched leaves: cones pointing upwards.

THIS species grows to a straight tall tree, and is one of the most sightly of the kind. It receives its name from the hue of its leaves, which are of a full green in their upper surface, but, in the under, have two white lines running parallel to the mid-rib on each side, which give it a silvery appearance as viewed from below. The leaves in their form and manner of growth resemble those of the yew, whence it has been named the yew-leaved fir. The Latin appellation, *picea,* is borrowed from its being that whence tar or pitch is chiefly extracted. It is a native of Norway, and is said to yield the yellow deal. The cones grow to a great size, and soon shed their seeds.

THE WEYMOUTH PINE.

PINUS STROBUS.—*Pl.* 25.

Fructification. As the former.

Specific character. Leaves, five growing out of each sheath.

THIS species, a native of North America, where it is called the white pine, grows to the greatest height of any of the tribe, often arriving to that of one hundred feet. It is therefore preferred to the rest for masts of ships; and our largest men of war are furnished with them from trunks of this pine collected in the yards of Nova Scotia. They were first cultivated in England by Lord Weymouth, whence they are generally known here by his name; and they are now common in our plantations.

This tree has a smooth delicate bark, and its branches are well clothed with leaves. Its long cones hang loosely down, and soon shed their seeds.

Weymouth

Weymouth Pine?

a . *Male catkin*
b . *Immature cone*
c . *Female flower*

THE LARCH.

PINUS LARIX.—*Pl.* 26.

Fructification. As the former.

Specific Character. Leaves long, narrow, in bundles spreading like a brush, deciduous.

THIS tree, a native of the Alps and Apennines, has become a favourite with us, and is now extremely common in our nurseries and plantations, and for some years past has sprung up self-sown in the Highlands of Scotland. In beauty of appearance, and durability of wood, it much surpasses the Scotch fir, and will thrive in soils and situations equally unpromising. Its leaves fall in the winter, but not till they are almost ready to be immediately succeeded by fresh ones. Some larches make a beautiful show in flowering-time with

a Male catkin
b Immature cone
c Female flower

Larch

the bright purple tips of their female buds. Their branches have a tendency to hang downwards; and the trees, when they have room to spread, feather quite to the ground, forming an elegant cone of verdure. The wood is considered as almost unperishable in the countries where it is employed for timber. The larch is very resinous, and yields the turpentine commonly called Venice. The young shoots are peculiarly grateful to the stag, and to the squirrel; the latter of which animals is a very mischievous inhabitant of larch plantations, from its practice of gnawing off the leading shoot of the young trees.

b

a. Berry cut vertically.
b. Seed.

THE YEW.

TAXUS BACCATA.—*Pl.* 27.

Fructification. Barren flowers, without petals, consisting of many united chives. Fertile flowers, generally on a separate tree, without petals, succeeded by a berry, succulent, globular, open at the end, containing one seed.

Specific character. Long, narrow, pointed leaves, growing near together. Bark reddish. Berries red.

THE yew is a native tree of this country, and is found in rocky and mountainous situations, where, though of slow growth, and moderate height, it sometimes arrives at great thickness of trunk. It is however, more commonly seen in a planted state, particularly in church-yards, probably on account of its being an evergreen, and furnishing boughs for the decoration of churches at the season of Christmas. This

Yew.

a. Berry cut vertically.
b. Seed.

situation, and the gloomy darkness of its foliage, have caused it to be named "the funereal yew." It is, however, more celebrated for the ancient use of its wood in making the most formidable weapon of our ancestors, the long bow. Its toughness and elasticity rendered it peculiarly fit for this purpose: Thus Spenser characterises it as

> The eugh obedient to the bender's will.

Much force was, however, required in overcoming its resistance, and the archer must have had a strong arm

> ——— ——— who drew,
> And almost joined, the horns of the tough yew.

It was commonly planted near houses, both on account of its utility, and its fitness for being cut into those artificial shapes which were formerly thought highly curious and ornamental. Pyramids, obelisks, birds and beasts of yew decorated the court-yards of our country-houses, and supplied matter of admi-

ration to the gazing passenger. A better use of its obedience to the shears was made in the tall and impenetrable yew hedges, which sheltered and protected the ancient gardens. The yew, however, has always lain under the imputation of possessing noxious qualities. It is thought prejudicial to bees, and horses and cows have been killed by eating quantities of its clippings. There are even instances of a small dose of the fresh leaves proving fatal to children to whom it was given as a remedy for the worms. The sweet and viscid berries are eaten without inconvenience. The wood is at present valued by cabinet-makers and inlayers, on account of its beautiful red veins; and is also a good material for axles, cogs for mill-wheels, flood-gates for fish-ponds, and other works of strength and durability.

THE HOLLY.

Ilex Aquifolium.—*Pl.* 28.

Fructification. **Flowers generally with four chives and four pointals on each, (but sometimes the barren and fertile separate,) succeeded by a berry with four cells and one seed in each.**

Specific character. **Leaves oval, pointed, thorny.**

The holly grows native in woods to the height of twenty or thirty feet; but we more usually see it in gardens in the state of a shrub. It is an evergreen, and by its shining leaves and red berries forms a principal decoration in the winter landscape. Armed by nature in its own defence with thorns projecting from the indentations of the leaves, it has been selected by man for the protection of his cultivated plants, and formed into hedges impenetrable

. Berry.
. D°. cut transv
. Seeds.

a. Berry.
b. Do. cut transversly.
c. Seeds.

Holly

to all the foes of the garden. Were it not for its slow growth, no native of this climate would be preferred to the holly for this purpose. Mr. Evelyn speaks with rapture upon this subject. "Is there," says he, "under heaven a more glorious and refreshing object of the kind, than an impregnable hedge of about four hundred feet in length, nine feet high, and five in diameter, which I can show in my now ruined gardens at Say's Court, at any time of the year, glittering with its armed and varnished leaves; the taller standards at orderly distances, blushing with their natural coral? It mocks the rudest assaults of the weather, beasts, or hedge-breakers, *Et illum nemo impune lacessit.*"

By the skill of the gardener numerous varieties are derived from the common or wild holly, distinguished by the variegations of their leaves, and disposition of their prickles. Some of these are very curious and beautiful, and

afford rich ornaments to a shrubbery. The wood of the full-grown holly is valuable. It is the whitest of all our hard woods, and therefore used by inlayers, and is sometimes stained black to imitate ebony. It is also excellent for the uses of the turner, carver, and mill-wright, being extremely firm and durable. Birdlime is made of the green bark of the holly, first boiled, and then laid in a damp place to ferment, by which it is converted to a perfect mucilage or slime.

THE BOX.

Buxus Sempervirens.

Fructification. Barren flowers with two petals and four chives. Fertile flowers in the same bud, with three petals and three shafts, succeeded by a roundish capsule with three bills and three cells, having two seeds.

Specific character. Leaves oval, thick, glossy. Blossoms greenish white.

The box is another evergreen tree or shrub, which is met with, though sparingly, in a wild state with us, but more commonly as planted in our gardens. Its rareness (probably owing to a foreign origin) may be inferred by its having given a name to those spots where it is principally found; as Box-hill, in Surrey; Boxley, in Kent; and Boxwell, in the Cotswould in Gloucestershire. In all these places the box grows in woods or thickets; it is also

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plentiful upon the chalk hills near Dunstable. A stony shallow soil, of the lime-stone kind, seems best to suit it. In old gardens it was much cultivated for the purpose of being clipped into those artificial forms which were once so much admired; and also for hedges. A dwarf kind is still one of the commonest borderings of flower beds, and pleases the eye by its perpetual verdure. The wood of the box is of a pale yellow colour; and being very hard, smooth, and solid, is much valued for various purposes. The principal of these are the making of combs, mathematical rulers, and other instruments, flutes, shuttles, and turnery wares. It bears a high price, and may be cut about every thirty years.

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Whittingham and Rowland, Printers, Goswell Street, London.

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