

477031P

*A few Copies are printed on Royal 8vo. Price 5s. each Part. * * About 10 Parts will complete the Work.*

PART VIII.]

[PRICE 2s. 6d.

A
HISTORY
OF
BRITISH FOREST-TREES,
INDIGENOUS AND INTRODUCED.

BY
PRIDEAUX JOHN SELBY, F.L.S., M.W.S., ETC.

ILLUSTRATED BY A WOODCUT OF EACH SPECIES,
AND NUMEROUS VIGNETTES.



LONDON:
JOHN VAN VOORST, 1, PATERNOSTER ROW;
BOOKSELLER TO THE ZOOLOGICAL SOCIETY.

S. BENTLEY,

[1st. March 1842.]

SHOE LANE.



Digitized by the Internet Archive
in 2018 with funding from
Wellcome Library

https://archive.org/details/b30388399_0008



Genus *Carpinus*, LINN.

LINN. *Syst. Monœcia*
Polyandria.

Carpinus betulus. LINN.

COMMON HORNBEAM.

Carpinus betulus,

LINN. *Syn.* pl. 1416.

HOOKER'S *Fl. Scot.* p. 274.

SMITH'S *Eng. Flor.* vol. iv. p. 155.

MACKAY'S *Flor. Hibern.* 256.

LINDLEY'S *Syn.* p. 240.

LOUDON'S *Arb. Brit.* ch. cv. p. 1004.

COMMON, and widely diffused as the Hornbeam is found throughout the greater part of the kingdom, it is nevertheless much better known as an underwood or as a hedge plant, than in its form of a timber tree with dimensions sufficient to place it among those of the second, if not of the first rank. Sir J. E. Smith, indeed, and Sir W. J. Hooker, in their botanical works, call it a small and low tree, but this is by no means its general character, or applicable to it when allowed to grow unmutilated and in soils suited to its habit; under favourable circumstances it attains a height of from forty to fifty feet, with a trunk of commensurate thickness, and which often reaches a circumference of six or eight feet.

Specifically the Hornbeam is distinguished, according to Smith, by the bracteas of the fruit being oblong, flat, serrated, with two lateral lobes.

In general form and appearance it bears a considerable resemblance to the beech, though its head is even closer, more rounded, or what may be termed cabbage-like, being composed of a confused assemblage of long flexible branches, and usually destitute of any prominent or determinate leader.

The leaves are without the gloss of those of the beech, and are not unlike those of the elm; they are pointed and



doubly serrated, with numerous parallel, transverse, hairy ribs, and when expanding are beautifully crimped or plaited. The barren, or male catkins, are two or three inches long, loose and scaly, of a yellow colour; and the female catkins, which when young are covered with close brownish scales, become gradually enlarged, “and,” as Sir J. E. Smith describes them, “form unequally three-lobed, sharply-serrated, veiny, dry, pale green bracteas, each enveloping an angular nut, scarcely bigger than a grain of barley.”



The trunk of the Hornbeam is rarely, in trees of above twenty-five or thirty years' growth, found of a round or regular form, but appears twisted, and as it were composed of several stems, grown or united together; this peculiar growth, it would seem, arises from the irregular deposition of the annual layers which, instead of being deposited in regular circular lines, as in most other trees, are undulated or zigzag, at the same time that the medullary or transverse rays are stronger and wider apart.

The Hornbeam is indigenous to a great part of England, and abounds in Essex, Kent, Norfolk, &c.; it is also

common in parts of Wales, in Lancaster, and the north midland counties; it does not, however, extend to the northernmost counties, nor do we think it is truly indigenous to Scotland, although Sir J. W. Hooker includes it in the "Flora Scotica," as we have never met with or seen it in natural woods, or in situations where it appeared to grow native, but always where it seemed to have been artificially introduced. It is also a native of Ireland. Its range upon Continental Europe is very extensive, and reaches northward as high as 55° and 56° N. L. In Asia it is found in the Caucasus, Western Asia, and Asia Minor, but is not met with upon the African Continent.

By the Greeks it was considered a kind of maple, and like it went under the name of *Zeugia*, the wood of both trees, from the tenacity of their fibre, being employed for making the yokes for oxen. By the Romans it does not appear to have been held in much repute, as no mention is made of it by Virgil or other poetical authors. Pliny describes it under the name of *carpinus*, by which title it is also alluded to by Vitruvius. Amongst our early writers it is described by Gerard as "very like unto the elm or wich-hasell, having a great body, the wood or timber whereof is better for arrows and shafts, pulleys for mills, and such like devices than elm or wich-hasell, for in time it waxeth so hard, that the toughness and hardness of it may be rather compared to horn than unto wood, and therefore it was called Hornbeam, or Hardbeam." By the author of "An Old Thrift Newly-revived," it is classed among the British timber trees, and he says "it doth much resemble the beech tree in quality." Parkinson, in his "Theatre of Plants," considers it to be the *Ostrya* of Theophrastus, and he so names it. Evelyn, after enumerating several of the uses to which its timber

was applied, eulogizes its adaptation for topiary works, and particularly mentions the Hornbeam hedges in the nursery-garden of London and Wise, at Brompton; he also adds, "that admirable espalier hedge in the long middle walk of the Luxembourg garden at Paris (than which there is nothing more graceful) is planted of this tree, and so is that cradle or close walk with that perplexed canopie which covers the seat in his majesty's garden at Hampton Court."

In those days, when geometric gardening so generally prevailed, the Hornbeam, from its hardy nature, its patient endurance of the shears, the height to which it could be trained, and its quick growth, was very extensively used; in this style of gardening the ground was divided into compartments by Hornbeam hedges and palisades, and these again diversified by others arranged in various forms, amongst which the star, the goose-foot, the labyrinth, and the bosquet, were conspicuous; but as a detailed description of each of these would occupy more room than our work will afford, we refer our readers to the "Retired Gardener," where ample details for executing works of this description will be found.

A similar application of the Hornbeam existed, and indeed still partially exists, upon the Continent. In France, the *Charmille*, or trained Hornbeam hedge, was very common, and Hunter, in his edition of Evelyn, describes from Agricola, a German author, the mode of making a strong Hornbeam fence or hedge, by planting the sets so as to form a cross, XX, and then, after scraping off a little of the bark of both sets where they touch each other, binding them together, an operation which speedily causes the two plants to unite and form an impenetrable living *chevaux de frise*.

As an ornamental tree, even in its highest state of developement, it is inferior to the beech, its outline being hard, formal, and lumpy from the rounded and closely-matted nature of its head; its pretensions to picturesque effect, therefore, are very slight, and it is only for the variety it produces when planted with other trees, and the shelter it affords, that we can recommend its admission into ornamental grounds, or what is called landscape gardening. As a nurse, however, to other trees, in plantations where profit is the object, we are inclined, from the observations and the trial we have made, to think more favourably of the Hornbeam than the encouragement it has hitherto received seems to warrant.* Its natural habit, which affects cold, stiff, clayey soils, points to it as a fit tree in all districts where soil of this nature intended to be planted prevails; upon such, therefore, it may form a constituent of one of the combinations we have recommended, and, in addition to the portion intermingled with the other trees, might be planted so as to form a belt of shelter, perhaps even more effective than that of the Scotch or any other fir, as by proper management and trimming it might be converted into a lofty and impenetrable hedge. Nor would it as a nurse or intermediate occupant be less profitable than many of the trees we are accustomed to introduce, as we find that its growth is nearly on a par with that of the beech, the elm, the sycamore, and the ash, and its wood, in the form of thinnings, when it has attained the age of twenty-five or thirty years, equally as valuable as that of most of the trees abovementioned at the same age, (much more so than that of the beech), as we find besides other pur-

* Boutcher recommends it as a nurse, and considers it as one of the fittest plants to encourage and protect valuable delicate trees.

poses, it makes excellent barrel staves for the fish-curers, the demand for which is now very great, and annually increasing, and is adding greatly to the value of woodland; as the thinnings which previously, with the exception of the larch, did little more than repay the cost of cutting down, now make a large return, particularly in those instances where the proprietor cuts up the wood himself by means of the circular saw.

The wood of the Hornbeam is white, close-grained, very tough, but with little flexibility, hard, and heavy. It does not, however, take a good polish, and from the disposition of its fibres is what is called cross-grained, and difficult to work or make smooth under the plane. For cogs of wheels it is the best wood that can be used, excelling, according to Evelyn, either the crab or the yew; but as iron wheels and machinery are now almost universally substituted for those of wood, its application to this purpose is nearly at an end. Its strength and tenacity is shown in the trial recorded by Loudon, where a piece of Hornbeam, two inches square and seven feet eight inches long, supported a weight of two hundred and twenty-eight pounds, while a similar one of ash broke under two hundred pounds, one of birch under one hundred and ninety pounds, of oak, under one hundred and eighty-five pounds, of beech under one hundred and sixty-five pounds, and of all other woods under a much less weight. As a fuel it stands in the highest rank, emitting much heat, burning long and with a clear bright flame, or as Boucher expresses it "like a candle, and easily lighted." Its charcoal is also highly prized, not only for culinary purposes and the forge, but for the manufacture of gunpowder, into which, upon the Continent, it enters in large proportion.

As already observed, the Hornbeam thrives best upon

a soil of adhesive nature, and is naturally found in cold clayey districts; it attains its greatest dimensions in stiff soils of moderate quality, and never thrives upon land of a dry gravelly nature or upon chalk. When propagated in the nurseries, which is done to a very moderate extent as compared with other forest-trees, it is by seed, which ripens in the autumn, and ought to be gathered when ready to fall to the ground. If sown immediately, a portion will vegetate the following spring, the remainder not till the second spring, which is also the case with all the seed kept in dry sand over the winter months. From the seed-beds they are transplanted into nursery-rows, whence, in the course of two or three years they may be removed to their permanent stations. Lopping and pruning of the Hornbeam ought never to be practised in spring, as it suffers injury from excessive bleeding; at other times it may be done without injury, and no tree is more patient of the knife. It seems subject to few diseases, and, from the tough and wiry nature of its branches, and the firm hold it obtains of the ground by its numerous and deep-descending roots, is rarely injured by storms of wind. The insects which feed upon it are not numerous, and the foliage is seldom severely injured by their attacks. Amongst the lepidopterous larvæ, which either wholly or partially subsist upon the leaves, are those of *Himera pennaria*, *Hybernaria prosapiaria*, *Geometra carpinaria*, *Campœa margaritata*, which belong to the Geometridæ. The larva of *Tenthredo carpini* also feeds upon the leaves, and one of the scale insects (*coccus*) infests the stems and branches of the trees.

In addition to the list contained in the "Arboretum Brittanicum," where several trees, measuring from fifty to seventy feet high, with trunks of six or eight feet in cir-

cumference are recorded, we may mention several specimens at Brocket Hall, the seat of Viscount Melbourne, averaging upwards of six feet in circumference at three feet from the ground, forty feet in height, and with a head whose diameter measures nearly seventy feet. At Twizell, twenty-seven years planted, it is three feet in circumference at eighteen inches from the ground, and upwards of thirty feet high.





ORD. *Platanaceæ.*

Genus *Platanus*, LINN.

LINN. *syst. Monœcia*
Polyandria.

Platanus orientalis. LINN.

THE ORIENTAL PLANE.

Platanus orientalis,

WILLD. *sp. pl.* iv. p. 473.
Hort. Cliff. 447.
MILL. *Dict.* No. 1.
Hort. Kew. iii. p. 364.

THE specific characters which distinguish the Oriental Plane from the occidental species, are, leaves five-lobed,

palmate, and wedge-shaped at the base, the divisions lanceolate and sinuated ; stipulas almost entire.

For beauty and nobleness of aspect the *Platanus* yields to no other tree in the East ; to a lofty height it adds a massive trunk and wide-spreading head, which, at the same time that it affords a delightful and almost impenetrable shade, does not offend the eye by any of that lumpish regularity of outline, which so often characterizes the sycamore, the horse-chesnut, and the lime-tree. The branching of the Plane is free and bold, and often in tier-like masses, and the spray, from its crooked and zigzag course, is devoid of formality, and, indeed, is often picturesque. The trunk is covered with a smooth bark of a greyish white colour, which scales off every year in large irregular patches, often producing a pleasing variety of tint. The leaves are large, cut into five deep segments, the two outer of which are slightly lobed, and all have their margins acutely indented. The petioles are rather long, with an enlargement at the base which covers the nascent buds. On the upper surface the leaves are of a pleasant shining green, the under surface is paler, with the angles of the veins slightly tomentose. The catkins which contain the seed are of a globular form and from two to five in number, on axillary peduncles ; they vary greatly in size, and are found from four inches to scarcely one in circumference. The flowers are very minute. The balls appear before the leaves in spring, and the seed ripens late in autumn ; these are small, and not unlike the seed of the lettuce, and are surrounded or enveloped in a bristly down.

Although this beautiful and classic tree appears to have been introduced into England nearly three hundred years ago, as it is mentioned by Turner in his "Names of

Herbes” as early as 1541, it never seems to have been encouraged to the extent it deserves, even as an ornamental appendage to the residences of our gentry, and the specimens now in existence are neither very numerous nor are they distinguished for their dimensions, at least as compared with those gigantic Planes which are met with in Greece, Persia, and other native habitats of the species. Whether this apparent neglect of the Oriental Plane has arisen from a supposed delicacy of constitution, (though, in fact, it is found to be hardier than the occidental species,) from its frequent failure, in consequence of having been planted in unfavourable soil, or from a like liability to suffer from late severe spring-frosts, which at intervals have proved so fatal to the American species, does not appear, though it is probable that these circumstances combined have created a prejudice against it and prevented its more extended distribution.

In the south of England and around London, where specimens are most numerous, the largest trees mentioned by Loudon seem to have attained a height of from seventy to ninety feet, and a diameter of trunk of from three to upwards of four feet. The oldest recorded British specimen is that at Lee Court in Kent, which was seen by Evelyn in 1683, and was then a fine tree; a portrait of the same was given by Mr. Strutt in his “*Sylva Britannica*,” and its dimensions were found by that gentleman to be as follow;—circumference at six feet from the ground fourteen feet eight inches, height sixty-five feet. In the north of England it is rarely seen, and few attempts are made to rear it, though its occidental congener is often planted in ornamental grounds. In Scotland it grows as far north as Ross-shire, where a tree fifty feet high, with a trunk of two feet in diameter, is mentioned by Loudon, growing

at Brahan Castle: healthy specimens in the neighbourhood of Edinburgh are also mentioned, and in Ireland it seems to grow vigorously, and at as rapid a rate of increase as it does in England.

The Oriental Plane is indigenous to Greece, and other parts of the Levant, and is also a native of Persia, extending, according to Royle,* as far south as Cashmere; it is also found in Asia Minor. Being a tree of no great power of occupancy it is rarely found in numbers together or forest-like, but usually growing single or in detached groups, and, as it requires a deep, rich, and rather moist soil to attain its full developement, is always found of the greatest magnitude upon rich, alluvial plains, and in the vicinity of running water. Such were the situations where those enormous Plane trees grew mentioned in the earliest records of Greece, one of which, as we learn from Herodotus,† so delighted Xerxes, when he invaded Greece, by its colossal form and shade, that he encircled it with a collar of gold and committed it to the especial care of one of the ten thousand. To this account, Elian adds, that an entire day was spent by Xerxes beneath its shade, a delay of portentous consequence to Greece, as it was one among other causes that contributed to the subsequent defeat of the mighty armament of the Persian king. Another Plane, remarkable for its size and beauty, which grew in Arcadia and was said to have been planted by the husband of Helen, is recorded by Pausanias, who saw it when it was supposed to be one thousand three hundred years old. Pliny, also, mentions that, in his time, a Plane tree was shown in Phrygia, against which the inhabitants affirmed Marsyas was suspended when flayed by

* See Royle's illustrations.

† Herod. Bib. ἡ πολύμνια, sec. 31.

Apollo. The same author, also, mentions the famous Plane of Lycia, which grew near to a fountain by the highway side, itself a forest, and in the hollow of whose mighty trunk the Roman governor Licinius Mucianus, accompanied by eighteen of his attendants, had enjoyed a repast. At a later period magnificent examples of this umbrageous tree continued to flourish in Greece, and many of these are existing at the present day; one of the most celebrated is the enormous Plane at Buyukdère or the Great Valley, conjectured by M. de Candolle to be more than two thousand years old; when measured by Dr. Walsh, in 1831, it was found to be one hundred and forty-one feet in circumference at the base, and the diameter of its head covered a space of one hundred and thirty feet. Some doubt, however, seems to exist as to whether it should be considered as a single tree, or as a number of individuals which have sprung from a decayed stock and become united at the base. The hollow contained within the stems of this enormous tree, we are told, affords a magnificent tent to the Seraskier and his officers, when the Turks encamp in this valley. An enormous Plane, known to Chandler, is mentioned by Hobhouse,* growing upon the bank of the Selinus, near Nostizza; Buckingham describes the same tree as being fifteen feet in diameter and one hundred feet high, covered with rich and luxuriant foliage. In Persia, the Chinar or Oriental Plane has been cultivated from the earliest period for the delightful shade it affords, and to the present day it is planted in all the Persian gardens to form avenues and shaded walks, under which, also, the inhabitants prefer to perform their religious exercises. The Chinar and the poplar (*Pop. fastigiatus*) seem, with few

* Hobhouse, "Journal of Travels in Albania," p. 229.

exceptions, to be the only trees that are met with in many parts of Persia, for Fraser, in his historical description of that country, published in 1834, when adverting to the general effect of Persian scenery, remarks, "that no trees gladden the landscape, except the tall poplar or the stately Chinar, which rise above the hovels of the peasants, or the fruit trees of their orchards, or perhaps a few other sorts which may have been planted on the margin of a water-course, to supply the little timber required; and these, dotting the wild plain with their dark foliage, convey to the mind a melancholy rather than a cheering impression."

Loudon remarks, that the Oriental Plane, as an ornamental tree, is much better adapted for pleasure-grounds and for planting near houses, than for extensive parks or for imitations of forest scenery; its character possessing a mildness of expression, combined, at the same time, with a majesty and gracefulness of form, that peculiarly fits it for domestic scenery. Its foliage is beautiful, not only for the shape, colour, and texture of the leaves, but for the tufted or rather imbricated manner in which it is disposed, in consequence of the strata-like form the branches naturally assume; a disposition, it may be observed, which, at the same time that it produces those recesses which give an effective depth of shade, allows, during sunshine, the admission of rays sufficient to create those flickering lights, which divest the tree of that character of heaviness which offends and tires the eye, in such trees as present an unbroken and regularly-rounded outline. As timber, the wood of the Oriental Plane is almost unknown throughout the greater part of the south and west of Europe, but in Greece, Persia, and other native habitats it is extensively used, not only in cabinet work, but in

common carpentry and joinery. Olivier tells us that its wood is equal to that of any European tree for cabinet-making, and that it is almost exclusively employed by the Persians for their furniture, doors, windows, &c.

When young, the wood is of a yellowish white colour, but as it acquires age becomes brown, streaked with reddish veins, and when polished is not unlike the wood of the best walnut. To rear the Oriental Plane in England, and see it acquire dimensions at all corresponding to what it attains in its native districts, it ought to be planted in a rich, light, free soil, sufficiently moist, but not water-logged or wet at bottom. The situation should be well sheltered and warm, not too much shaded or crowded by other trees; neither should it be in very low damp bottoms, as in such the late spring frosts, which have proved so injurious to this but more frequently to the occidental species, are always more severe in such localities than in more airy situations. By our nurserymen it is commonly propagated by layers, as these produce strong and saleable plants within a shorter period than cuttings, which do not root so freely as those of the occidental species. Seed also may be procured from abroad, and plants so raised we should prefer to either of the other methods. The balls or catkins in which the seed is contained are fit to gather in October or November, and the seeds, as soon as extracted and freed from the down, should be either sown immediately in beds of rich well-pulverized earth, and slightly covered or merely beat down by the back of the spade, with some lumber or litter thrown over them to keep out the frost, or they may be kept till March or the beginning of April, mixed with sand, in a situation secure from frost. In two years the seedlings will be fit to run into nursery rows, from

whence they may be planted into their permanent stations in two or more years according to the size considered most advantageous and most likely to succeed by the planter.





Platanus occidentalis. LINN.

WESTERN PLANE.

Platanus occidentalis,

WILL. sp. pl. iv. 495.

MILL. Dict. No. II.

Nov. du Hamel ii. p. 5.

Button-wood, Cotton tree, Amer.

The specific characters of the Occidental Plane, according to Willdenow, are, leaves five-angled, obsolete-ly lobed, dentate, wedge-shaped at the base, the under surface downy.

IN treating of trees which, like the Planes, resemble each other in magnitude, form, and general appearance, and in which this resemblance is so obvious as often to cause them to be confounded together, it seems necessary to point out the discriminating characters by which the one species can always be distinguished from the other. In the Oriental Plane, fig. 1, the leaves are smaller and much more deeply lobed, or divided into segments, than in the Western tree, fig. 2, and the petioles of the leaves,



Fig. 1.



Fig. 2.

which in the Oriental species are green, in the American tree are purplish red; the fruit, or ball-shaped catkins also of the Occidental Plane are larger and not so rough externally as those of the other. In magnitude it fully equals if it does not surpass the Oriental Plane, as its height is usually greater and its stem bulky in proportion. Even in England, specimens of the Occidental Plane of no great age are to be met with one hundred feet high. The beautiful tree growing in the palace garden at Lambeth had, we are informed by Loudon, in 1837, at forty

years' growth, reached that lofty elevation, and another in Chelsea Garden, planted by Miller, was then estimated at upwards of one hundred and fifteen feet in height; from these instances and many others that might be adduced, it is evident that the growth of this species, when planted in appropriate situations, is more rapid than that of its eastern congener. In America, upon the rich banks of the Ohio, and other great western rivers, where it luxuriates in a deep moist soil, enriched by the annual slimy deposits of their waters, and by the yearly recurring layers of fallen leaves, the American Button-wood attains a magnitude and height which constitute it, as Michaux informs us, "the loftiest and largest tree of the United States." This author mentions a Button-wood tree that his father met with, growing on a small island in the Ohio, about fifteen miles above the mouth of the Muskingum, which, at five feet from the ground, measured forty feet four inches in circumference; and he himself, on a journey through the western states in 1802, found, on the right bank of the same river, another Button-wood of still more enormous dimensions, its girth, at four feet from the ground, being forty-seven feet, or nearly sixteen feet in diameter. This tree, which showed no symptoms of decay, but on the contrary exhibited a rich foliage and vigorous vegetation, began to ramify at about twenty feet from the ground, a stem of no mean length, but short in comparison to many large trees of this species that he met with, whose boles towered to a height of sixty or seventy feet without a single branch.

The American Plane is distributed over a great portion of the North American Continent, but is confined by its nature, so Michaux tells us, "to moist and cool grounds,

where the soil is loose, deep, and fertile ;” and he adds, “ it is never found upon dry lands of irregular surface.” It was first introduced into England about two hundred years ago, and in consequence, it would appear, of its more rapid growth and easy propagation by cuttings, had, in Evelyn’s time, become much more common than the Oriental Plane, which it had then nearly supplanted ; and even at present it continues to be planted in preference to the other, though it is evident from the fatal effects produced by the severe spring frost in the month of May 1809, and by the severe winter of 1813 and 1814, that it is in reality of a more delicate constitution, and less able to bear the vicissitudes of our climate, than its oriental congener. In the year and month first named, a severe frost destroyed the tender shoots and leaves, just then bursting from their envelopes, of most of the largest trees of the Occidental Plane in England and Scotland, and though some which were not killed by the first attack, made an attempt to push again late in the season, the feeble shoots they emitted were again destroyed by an early autumnal frost ; this sealed their doom, as nature was too much exhausted to make a successful effort the following spring, and they speedily died.

In Scotland, where trees of both species were standing near to each other, the Oriental escaped ; and Sang, in the “ Planter’s Calendar,” p. 99, observes, “ It is very singular that of the *Plat. Occidentalis* the largest trees only were killed ; trees of from twenty to twenty-five feet in height were little hurt, and small ones not at all, at least in every instance that came under our observation ;” and he adds, “ we did not observe or hear of a single Oriental Plane being injured in any part of

the country.”* Again the winter of 1813 and 1814, remarkable for the severity of its frost, proved fatal to most of the large Occidental Planes that had escaped in 1809, a circumstance that fully accounts for the rarity of trees of this species throughout the kingdom of any extraordinary dimensions or advanced age at the present time.

As an ornamental tree the Occidental is in no way inferior to the Eastern Plane. Its stem exhibits the same picturesque effect, as its bark is equally liable to scale off, and the tints thus produced by the contrast of colour of the new and old bark, offers to the pencil, as Gilpin observes, “those smart touches which have so much effect in painting.” The same author remarks, “that no tree forms a more pleasing shade than the Occidental Plane. It is full-leaved, and its leaf is large, smooth, of a fine texture, and seldom injured by insects. Its lower branches shooting horizontally soon take a direction to the ground; and the spray seems more sedulous than that of any tree we have, by twisting about in various forms, to fill up every little vacuity with shade.”

The timber of the Occidental Plane may be said to be scarcely known in England, as it has hitherto only been planted for its ornamental properties, and never with a view to profit; from Michaux we learn that, though of a close grain and susceptible of a high polish, it cannot, from its liability to warp, be used for delicate cabinet purposes, but is made into bedsteads and other bulky articles; its colour when old is dull reddish brown, and the medullary rays, extending from the centre to the circumference, and which divide the concentric rings into

* For a further account of the destruction of the Occidental Plane in various parts of England by the frost of 1809, our readers are referred to the “Gentleman’s Magazine” for 1810 and 1813.

numerous sections, are very distinct and visible. Exposed to the weather or to the alternations of moisture and dryness, it quickly decays, and its qualities as a fuel are only of secondary order, as it neither gives much heat nor a bright flame, nor does it yield much charcoal.

The usual mode of propagation in this country is by layers or by cuttings, which root as freely as those of the willow ; it is also sometimes raised from seed imported from America in the globular catkins, and in this way Cobbett stocked his nursery for some years. In his account of the treatment of the seed, previously to and after being sown, contained in his "Woodlands," we find that, after breaking the balls by hand and separating the down from the seeds, he soaked the latter in lukewarm water for forty-eight hours, they were then mixed with finely-sifted fresh earth, ten gallons of earth to one gallon of seeds : the mixture, being put upon a smooth place on the bare ground was turned and remixed every day for four or five days, keeping it covered with a mat whenever the turning and mixing was not going on, and as soon as a root began to appear here and there the seeds were sown upon a bed of sifted earth, mixed with the sifted mould, just as they came out of the heap. No further covering of earth was given them, but they were shaded from the sun by mats during the day, watered with a fine-rosed watering-pot in the evening, about which time the mats were taken off for the night. In about a week most of the seeds had germinated, and shortly afterwards the cotyledons appeared. The young plants were then inured by degrees to the sunshine, till they were hardy enough to be exposed during the whole of the day. In October they had ripened their wood, and the next season were fit to run into nursery rows.

In the list of existing trees recorded in the "Arboretum Britannicum," we find, as might indeed be expected from what we have already stated in regard to the destruction caused by the frosts of 1809 and 1813—14, none of any great age or extraordinary dimensions, but several which show a great rapidity of growth when planted in a suitable soil; amongst the finest are the two trees already alluded to, the one growing in the palace gardens at Lambeth, the other in the botanic garden at Chelsea. Another beautiful specimen of the *P. Occidentalis*, and of large size, stands in the park at Cheply, Somersetshire; it measures twelve feet in circumference at three feet from the ground, with a well-balanced wide spreading head. At Twizell, about twenty years planted, it is four feet in circumference at one foot six inches from the ground, and about forty feet high, the situation a good alluvial soil upon the brink of a rivulet.

Both species of *Platanus* in this country seem equally free from the attacks and ravages of insects, and, in consequence, their foliage is never injured or defaced; it would also appear that, in their native habitats, the insects that infest them must be few, as the foliage and aspect of the two species are always described as luxuriant, beautiful, and affording the deepest shade.



ORD. *Taxaceæ.*

Genus *Taxus*, LINN.

LINN. *Syst. Diœcia*
Monadelpkia.

Taxus baccata. LINN.

COMMON YEW.

Taxus baccata,

LINN. sp. pl. 1472.
 NOV. DU HAM. i. p. 62.
 SMITH'S Eng. Flor. iv. 252.
 HOOKER'S Brit. Flor. p. 434.
 MACKAY'S Flor. Hibern. p. 259.
 LINDL. Syn. p. 241.
 LOUDON'S Arb. Brit. ch. cxii. p. 2066.

SPECIFICALLY the Common Yew is distinguished by having its leaves 2-ranked, naked, linear, and flat; the receptacle of the barren or male flowers globular. The outline of this tree, during its period of growth, is pyramidal or broadly conical, the summit presenting a pointed or peaked appearance, nor does it lose this form or become round-headed for many years, indeed, not until it has attained its utmost growth, and incipient decay in the topmost branches marks the period when it has passed maturity, a condition it frequently does not arrive at, before several centuries have been numbered. It grows with a stiff erect stem, short in proportion to its bulk, and, when left to its natural growth, numerous nearly horizontal branches spring



from within a very short distance of the ground; these, if left unmolested, annually elongate, and at length cover with their umbrageous spray a large space of ground. The trunk, as well as the larger branches of the Yew, are seldom if ever seen perfectly round or smooth, but are deeply grooved longitudinally, much in the same manner as the trunks of the hornbeam and the Lombardy poplar; they are covered with a thin bark of a rich red-

dish brown colour, which exfoliates and peels off in patches like that of the *Platanus*. The leaves, about an inch in length and placed in two lateral rows, are of a linear shape, nearly sessile, their upper surface of a deep glossy green, but paler, and with a prominent midrib beneath.

The flowers are solitary, proceeding from a scaly axillary bud; those of the male plant are pale brown, and discharge a very abundant yellowish white pollen. The female flowers are green, and in form not unlike a young



acorn. The fruit when ripe consists of a scarlet berry, very sweet to the taste though mawkish in flavour, and of a glairy or glutinous consistence, open at the top and enclosing a small, oval, brown, hard-shelled seed or nut, which, though surrounded by, is not immediately connected with, the fleshy cup. The kernels of these nuts are not deleterious, as supposed by many, but may be eaten with impunity, and they possess a sweet and agreeable nutty flavour.

The Yew is indigenous to Britain, growing naturally in various parts of England and Scotland, and particu-

larly affecting rocky and mountainous wooded districts. It is also found in similar situations in Ireland, advancing to as high a range as twelve hundred feet. It seems to prefer a northerly or cool aspect, and grows freely under the shade of many deciduous trees. The soil most congenial to its growth is that of a stiff calcareous nature, and where it is kept pretty moist by the percolation of water or the shade of surrounding trees and herbage. It is not, however, a tree of much power of occupancy, being seldom found growing in large masses together, but usually solitary or intermingled with other trees. It is also indigenous to the greater part of continental Europe, and to parts of eastern and western Asia, and should the *T. Canadensis* be only a variety of *T. baccata*, as supposed by Loudon, in that case its distribution extends to the North American continent. Like most trees of slow growth, tardy, at least, when compared with the rapid advance of many of our deciduous species, as well as several of the Coniferæ, the Yew is long in attaining maturity, and many centuries frequently elapse before it shows any symptoms of decay, a fact we learn from the records of celebrated trees now extinct, as well as from others still in existence, and whose history can be traced for upwards of one thousand years.

In bygone times, when the Yew tree furnished that formidable weapon the long bow, so destructive in the powerful and skilful grasp of the English archer, and to the decisive effects of which we are said in a great measure to have been indebted for some of our proudest and most momentous victories, witness the fields of Cressy, Poitiers, Agincourt, &c., it was held in high and deserved esteem, and every care was taken to ensure its preservation and foster its growth; statutes having been

passed for these purposes in various reigns, as well as to forbid the exportation of a wood of such value and importance to the kingdom.

In this state of honourable distinction the Yew long continued ; and it was not till the reign of Elizabeth, at which period the introduction of fire-arms began to be general and to supersede the use of the more primitive weapon, that the motives which had previously protected and encouraged its growth, and had given such value to its tough and elastic fibre, ceased to exist, or that those associations long connected with it were forgotten, and no longer exerted their influence in its favour. These feelings once at an end, the Yew seems to have fallen into a state of comparative oblivion and neglect, and so continued till Evelyn again brought it into a certain degree of repute, not, however, for the qualities which at an earlier period had given it such celebrity, but as an ornament to the gardens and pleasure-grounds of the gentry of his day, either for hedges of shelter and defence, or as ornamental appendages, when fashioned by the shears into the forms of birds, animals, cones, pyramids, and other fantastic devices. This practice of torturing the Yew into such a diversity of shapes continued to prevail for many years, or until the time of William III., when it yielded to the ridicule that was launched against it, and gradually gave way to the present less formal style of garden embellishment. Examples, however, of clipped Yew hedges and fanciful forms cut out of the living tree are still to be seen in some few of our oldest English flower-gardens ; and, from the striking and peculiar effect they often produce, we are almost disposed to wish, with Mr. Loudon, that the taste was again, at least partially, revived, and introduced into some of the gardens of those Gothic and

Elizabethan villas which of late years it has been the fashion to erect.

Since the Yew ceased to be employed as a hedge plant, in the manner described, its cultivation has been greatly neglected, indeed, the prevalent feeling towards it has long been such as nearly to banish it from the precincts of our residences and pleasure-grounds; not, it would appear, from any valid objection that can be urged, either against its form or the effect it produces, but from the unfortunate habit (old and more interesting recollections being entirely forgotten,) of viewing it in the light of a funereal tree, and associating it with scenes of melancholy and the grave, a feeling no doubt arising from the fact of the tree being very frequently found growing in ancient churchyards, where many of our most venerable and celebrated specimens are still to be seen. Such a distaste towards the Yew is much to be regretted, as we consider it one of the most beautiful evergreens we possess, combining beauty of appearance with other valuable properties, such as a temperament hardy enough to brave our most inclement seasons, extraordinary longevity, and a constitution which enables it to thrive in soils of inferior quality. In this opinion we are not singular, for Gilpin speaks of it in terms of great commendation, and pronounces it, even in a state of nature, to be one of the most beautiful evergreens we have. “Indeed, (he says,) I know not whether it is not superior to the cedar of Lebanon itself—I mean of such as are representatives of that noble plant seen in England;” he also combats most successfully the objection often urged against the colour of its foliage, which, as consonant with our own sentiments, we quote in his own words. “An attachment to colour, as such, seems to me an indication of false taste. Hence arise

the numerous absurdities of gaudy decoration. In the same manner, a dislike for any particular colour shows a squeamishness which should as little be encouraged. Indeed, when you have only one colour to deal with, as in painting the wainscot of your room, the eye, properly enough, gives a preference to some soft pleasant tint, in opposition to a glaring bold one ; but when colours act in concert, (as is the case in all scenery,) red, blue, yellow, light green, or dingy green are all alike. The value of each consists solely in its agreement with its neighbours.”

Whether as an evergreen undergrowth or as a timber tree, the Yew is well deserving of a cultivation more extended than it has hitherto received. As an underwood, it is in our opinion scarcely inferior to the Holly, and only so in failing to produce those sparkling effects of light which distinguish the larger and more highly glazed dark green foliage of that plant ; in hardihood it is its equal, and it bears, with the same comparative impunity, the drip and shade of many of our loftier deciduous trees, a quality of great importance where an evergreen underwood is desired. The great value and durable properties of its wood ought also to favour its introduction into our mixed plantations, even where profit is the chief object in view, and we should like to see it supplanting a certain portion of the evergreen Coniferæ, generally associated with the deciduous trees ; for, though its progress is slower and a longer time would necessarily be required to bring it to a useful and marketable size, yet the additional value of its wood, in a great measure, would compensate for the tardiness of its growth. We may further remark that the Yew, thus situated and fostered by the shelter of surrounding trees, would be drawn up and grow much more rapidly

and with a cleaner stem than when isolated or standing exposed, and that much also might be effected towards a quicker growth by training the plants when young to a single stem, by eradicating supernumerary leaders, and shortening in the side branches where they appear to be too rampant or to detract from the nourishment that ought to go to the central stem. When thus planted, with a view to its timber, the Yew and the oak, as longest in attaining maturity, ought to remain as the ultimate crop upon the soil, such intermediate occupants as it might be thought necessary to plant along with them, whether consisting entirely of the Coniferæ or of a mixture of these with other deciduous trees, being gradually thinned out to give sufficient room and air to the survivors. Planted and treated in this way, the number of Yew plants required per acre would be comparatively few, and their cost (a matter of considerable importance when planting upon an extensive scale,) moderate, as it would not be necessary to place them nearer to each other than from thirty to forty feet.

We have already adverted in a cursory manner to the frequent occurrence of the Yew tree in ancient churchyards, where many of the finest and most venerable specimens are still in existence; the origin of the custom of planting them in this situation remains, however, a matter of speculation, as no ancient historic records refer directly to the subject, or explain why such deference was paid to this tree. In consequence of this want of information, various opinions have been broached by writers upon the subject. By some it is supposed to have been so placed to ensure its preservation from cattle and other injuries, as being a tree, in former days, of national importance for the fabrication of the English long bow; by others, as

intended to afford a supply of branches to the congregation on Palm Sundays; while others, again, have imagined that it was merely introduced as an emblem of silence and death. The most probable and comprehensive view that has yet been taken appears to be that of J. E. Bowman, Esq., F.L.S., contained in an article published in the first volume of the "Magazine of Natural History," new series, and which is free from the objections that may be urged against most of the other suppositions upon the subject, all of which appear to be too limited as to the time when it is supposed the custom first commenced; for there is little or no doubt but that Yew trees existed in places of Druidical worship previous to the erection of Christian churches upon the same sites, and the Rev. W. T. Bree, in the sixth volume of the "Magazine of Natural History," suggests the probability that churches were more frequently built in Yew groves or near old Yew trees, than that Yew trees were planted in the churchyards after the churches were built. Mr. Bowman also observes, "It seems most natural and simple to believe that, being indisputably indigenous, and being, from its perennial verdure, its longevity, and the durability of its wood, at once an emblem and a specimen of immortality, its branches would be employed by our pagan ancestors, on their first arrival here, as the best substitute for the cypress, to deck the graves of the dead and for other sacred purposes. As it is the policy of innovators in religion to avoid unnecessary interference with matters not essential, these, with many other customs of heathen origin, would be retained and engrafted on Christianity on its first introduction." Such, indeed, we find to be the case in regard to other existing customs whose origin is generally unknown, or, if known, confined to the learned

or the antiquarian ; as instances, may be cited the decoration of the interior of our churches and houses with sprigs of holly at Christmas, a custom derived from the heathens, and which originated in the celebration of the Saturnalia in pagan Rome. The suspension of the miseltoe bush, also, within the dwelling-house, which still prevails in some parts of England at the same period of the year, is supposed to be a vestige of Druidical rites which prevailed long anterior to the introduction of Christianity.

The wood of the Yew possesses qualities of first-rate excellence, being not only hard, compact, of a fine and close grain, and elastic, but susceptible of a very high polish and almost incorruptible. The colour of the matured wood is peculiarly rich, varying from shades of the finest orange red to the deepest brown, and near to the root and at the ramification of the branches it is marbled and veined in a way surpassed by few of the finest foreign cabinet woods ; the sap wood, also, which is white and of a firm and hard texture, may be worked up with the other kind, and thus add to the numerous shades of colour it exhibits. From the qualities above enumerated, the Yew may safely be pronounced, not only one of the most valuable among European trees for cabinet purposes, but scarcely, if at all, inferior to the most costly exotic woods that have been introduced ; unfortunately, from the neglect of not having been treated as a timber tree, or planted extensively with a view to profit, it is not, at present, to be procured in quantity sufficient to make it generally available for the larger articles of furniture, and its application is, therefore, restricted to the making of small tables, work-boxes, &c., when it is generally used in the form of veneers, or for inlaid work and the smaller

wares of the turner. Its extraordinary power of resisting decay and corruption is not, however, restricted to manufactured articles, or where it is protected from exposure to the weather or the alternation of moisture and dryness, as it is equally remarkable for its superior durability when exposed or used in exterior or out-of-door work; thus for piles, pumps, &c., the Yew will last longer than any other wood, and Gilpin gives the advice that, "where your paling is most exposed to wind or springs strengthen it with a post of Yew. That hardy veteran (he adds,) fears neither storms above nor damps below. It is a common saying, among the inhabitants of the New Forest, that a post of Yew will outlast a post of iron."

In France, Loudon mentions that the Yew is found to make the strongest of all wooden axletrees. Even the branches are of considerable value, making stakes and hoops of great durability, and the young shoots, stripped of their bark, may be woven into baskets much stronger and more lasting than those of the willow. Another valuable property possessed by the Yew, given on Boucher's authority, ought not to be omitted: it is, "that the wooden parts of a bed made of Yew will most certainly not be approached by bugs;" a knowledge consolatory to those who have Yew timber to convert to such a purpose, and who are subject to the attacks of this irritating and disgusting insect.

The wood of the Yew after being cut is long in becoming perfectly seasoned; yet it is said to shrink so little in drying as not to lose above $\frac{1}{8}$ part of its bulk, a property no doubt arising from the close and compact nature of its grain, the result of slow growth, and the thinness of the layers of wood that it annually deposits, two hun-

dred and eighty of these, according to Loudon, having been counted in a piece of wood of not more than twenty inches in diameter.

In the earlier part of our history the principal application of the wood of the Yew was to the manufacture of bows, long the most formidable weapon of the English, and in the management of which they always evinced superior skill; on this account, as we have already remarked, the tree was fostered and protected by our ancestors, and archery encouraged by the edicts of several of our monarchs. From authors who have written upon the subject we learn that the English bow, up to a certain period, was made of a single piece of wood, varying from four to six feet in length, the ends tipped with horn to retain the string, as at the present day, but without any felt or other substance wrapped round the middle to support the hand. Roger Ascham, the author of "Toxophiles," a curious and amusing treatise on this subject published in 1544, tells us that "every bowe is made of the boughe, the plante, or the boole. The boughe is knotty and full of pruines; the plante is quick enough of caste, but is apt to break; and the boole is the best." He afterwards gives the following directions how to select a bow:—"If you come into a shoppe and fynde a bowe that is small, longe, heavye, stronge, lyinge streighte, not wyndynge, nor marred with knottes, gaule, wyndshake, wem, freat, or pinch, bye that bowe on my warrant." When fire-arms became more generally introduced, and the bow ceased to be used as a war weapon, the cultivation and care of the Yew seem to have been speedily abandoned, as wood fit for the manufacture soon after appears to have become very scarce, for we find that towards the end of the sixteenth century, in consequence of this de-

iciency, bows composed of two or more pieces of different woods, were invented by a bowyer of Manchester, named Kelsal, who, retaining the belly of the bow of Yew, backed it with ash, or some other wood of elastic fibre. Up to the present day this mode of making the bow is very generally practised; but as various exotic woods from South America, and other parts of the world, have been introduced, possessing even superior qualities for the manufacture, the Yew is rarely used, not on this account alone, but from the difficulty of obtaining a supply of its timber fitted for the purpose.*

Of the deleterious and poisonous nature of the foliage and bark of the tender shoots of the Yew, both to human beings and to certain animals, there can scarcely be a doubt; repeated and well-authenticated instances of fatal effects having occurred after having taken them, not only in this country, but also in France and other parts of the Continent. It appears, however, in regard to animals, that it is only when taken in quantity or unmixed with other food that the effects prove fatal; for in a course of experiments made by Professor Wiborg of Copenhagen, it was shown that although the leaves, when eaten alone, were particularly fatal to horses, when mixed with twice or thrice the quantity of oats they could be given without danger. Loudon also mentions that, in the mountains of Hanover and Hesse the peasants feed their cattle in part with the branches of the Yew during winter; but knowing the poisonous nature of the tree, they commence by giving a very little at first, mixed with other forage, afterwards they gradually augment the quantity, until at last

* To those interested in archery, we refer our readers to Mosley's Essay on this subject, and "Roberts's English Bowman," or "Hints on Archery," published in 1801.

they can almost give them the leaves alone without danger. To goats, hares, rabbits, and sheep it is said to be quite innoxious, indeed we have repeatedly seen the three latter animals browsing upon it with apparent impunity; this, however, might possibly arise from the small quantity eaten at one time, or from having previously partaken largely of other food, which, it has been shown, neutralises the poisonous property, and this seems to account for the fact that cattle and sheep have been known to pasture without any dangerous consequences where Yew trees were accessible to them, and which showed evident signs of having been severely browsed.

The berries do not partake of the poisonous quality of the plant, as the sweet mucilaginous cup which surrounds the nut, as well as the kernel of the latter may be eaten without danger. They are a favourite food of the *Merulidæ*, or thrush tribe, and the female trees are eagerly resorted to by the Missel Thrush, Blackbird, &c., as soon as the fruit begins to acquire its scarlet tinge. Wasps, also, are said to prefer the fruit of the Yew to that of the vine, and under this impression Mr. Knight, in the "Horticultural Transactions," suggests the advantage of planting female Yew trees in the immediate vicinity of vineries.

As a short notice of some of the most celebrated Yew trees, remarkable for their antiquity, dimensions, or other peculiarities, may not be uninteresting to our readers, we shall proceed to select a few from the lists now before us. Commencing, therefore, with those already recorded by former writers, we pass to the Crowhurst Yew, growing in Crowhurst churchyard, close to the ruins of the abbey, which, in Evelyn's time, had a trunk ten feet in diameter. At the present day the trunk is hollow, but it still carries a noble and flourishing head. The Yew trees at Foun-

tains' Abbey are also celebrated for their size and age, having been trees of no mean dimensions when the abbey was founded in 1132, as we gather from the tradition handed down, viz., that the monks who built the monastery resided beneath the shelter of these very Yews during the time of its erection. One of them is beautifully figured in Strutt's "Sylva," and of their dimensions some idea may be formed from the fact that the trunk of one of them is nearly twenty-seven feet in circumference at three feet from the ground:—the Ankerwyke Yew, supposed to be upwards of one thousand years old, within sight of which Magna Charta was signed, and under whose shade Henry the Eighth is said to have made his appointments with Anna Boleyn while she resided at Staines. This tree is also beautifully figured by Strutt, who quotes the following lines:—

“ There, too, the tyrant Henry felt love's flame,
 And, sighing, breath'd his Anna Boleyn's name.
 Beneath the shelter of this Yew tree's shade
 The royal lover woo'd the ill-starr'd maid.
 And yet that neck, round which he fondly hung,
 To hear the thrilling accents of her tongue;
 That lovely breast on which his head reclin'd,
 Form'd to have humaniz'd his savage mind,
 Were doom'd to bleed beneath the tyrant's steel,
 Whose selfish heart could doat but could not feel.”

In Ifley churchyard, near Oxford, is another very ancient Yew, the trunk of which is now nearly reduced to a shell, but which still carries a flourishing head; it is supposed to be at least coeval with the church, whose date is believed to be prior to the Norman Conquest. In the churchyard of Dibdin, New Forest, Sir T. D. Lauder mentions a Yew tree which measures above thirty feet in girth above the roots. The Buckland Yew, growing in Buckland churchyard about a mile from Dover, a description

of which is given by the Rev. W. T. Bree, in the sixth volume of the "Magazine of Natural History," is apparently a tree of very great antiquity, and of very curious formation and grotesque appearance; the latter seems in a great measure to have been caused by the shattered condition to which it was reduced by lightning about the middle of the last century. A figure of its interesting remains is given in the "Arboretum Britannicum." An enormous Yew, with a hollow trunk of thirty-seven feet in circumference, stands in the churchyard of Tisbury, in Dorsetshire; Sir T. D. Lauder, in his edition of "Gilpin," mentions that "seventeen persons lately breakfasted in its interior." The tree is entered by means of a rustic gate.

The Tytherly Yews, two trees growing in the churchyard at Queenwood, near Tytherly, in Wiltshire, are upwards of five hundred years old. The largest is twenty-eight feet high, with a trunk three feet six inches in diameter. Loudon mentions that in the same wood there are two avenues of Yew trees, one of four hundred and fourteen yards long, consisting of one hundred and sixty-two Yews, supposed to be about two hundred years old. They average a height of thirty feet, with trunks two feet in diameter at two feet from the ground. The other avenue, planted upwards of one hundred and sixty years ago, and about four hundred yards long, consists of one hundred and twenty trees, averaging about twenty-four feet high, with trunks nearly two feet in diameter.

In Harlington churchyard, between Brentford and Hounslow, Loudon refers to a Yew not only remarkable for its size, but for having once been clipped into a regular form; a print of the tree in that state appeared in 1729, a copy of which is given in the "Arboretum Britannicum," to which we refer our readers; this tree is stated to be

fifty-eight feet high, with a trunk nine feet, and a head fifty feet in diameter. In the churchyard of Darby in the Dale, Derbyshire, stands the Darby Yew, the circumference of whose trunk, at four feet from the ground, is thirty-one feet eight inches. At seven feet above the ground it forks into two nearly upright boughs, which rise to the height of fifty-five feet. This tree is a female. Wales also contains Yews of very ancient date and huge dimensions; amongst them, the Gresford Yew stands preeminent for its beauty of form and magnificent appearance; it grows in the south-east corner of Gresford churchyard, near Wrexham, Denbighshire, and has a circumference a little below the divarication of the branches of twenty-nine feet, and, at the very base, of twenty-two feet. Its height is fifty-two feet, and the circumference of its head would appear to be upwards of one hundred and sixty feet. The Mamhilad Yew, a female tree in the churchyard of that name, a few miles north of Pontypool, shows, from the hollowness of its trunk, and the growth of a large tree, apparently detached within the central cavity, an extraordinary antiquity, as does likewise the Llanthewy Vach Yew, which, like the former, has a hollow trunk with a lateral opening, and capable of containing five or six persons. It has also, in the centre, a still more remarkable inner trunk covered with bark, and this is detached and distinct from the old trunk below, though united to it above by a branch running into, or more probably proceeding from it. This singular formation of interior trunks within the hollows of more ancient trees, seems satisfactorily accounted for in an article published in the first volume of the new series of the "Magazine of Natural History," where the author observes, "that when the top of the trunk becomes injured

and cracked by the action of storms upon the boughs, rain finds access and causes decay, and the dead leaves, and dung of bats, birds, &c., falling in, combine, with the rotten wood, to form a soft and rich mould, into which a bud shooting out from a neighbouring part (if not actually covered by the mould,) is naturally drawn by the moisture and shade, and transformed into a root, and which root, as the fissure widened and deepened by the slow but sure process of decay, would descend and thicken till it ultimately fixed itself in the soil below. After a lapse of perhaps several centuries, decay gradually advancing would at last reach the circumference of the trunk, and produce a rift on the side; through this the rotten mould would fall out, gradually exposing the root it had inducted downwards, which, in consequence of the combined influence of light and air acting upon it, would forthwith begin to deposit annual layers of true wood, and to be covered with a true bark. In the mean time it would have shot up a stem near its point of union, and have formed for itself an independent head and branches."

In the parish of Ribblesford, near Bewdley, Worcestershire, mention is made in the first volume of the "Analyst," p. 81, of a fine Yew tree growing out of, and nearly filling the hollow of a pollard oak, whose circumference near the ground is seventeen feet. Both trees are clothed with numerous branches, which make a fine appearance; "the dark green foliage of the Yew towering above the boughs of its ancient companion." In this case the seed of the Yew seems to have been deposited in the decaying top of the pollard, where it vegetated, and continued gradually to send down its roots till they penetrated the ground below.

Scotland, also, can boast of very remarkable Yew trees,

among which, that in the churchyard of Fortingal, situated at the entrance of Glen Lyon, in Perthshire, is one of the most ancient and venerable, and, as Dr. Neill remarks, in all probability was a flourishing tree at the commencement of the Christian era. It was first described by Daines Barrington, in the "Philosophical Transactions" in 1769, and he then stated its circumference to be fifty-two feet. Some years afterwards it was seen by Pennant, who found the circumference increased to fifty-six feet six inches. Dr. Neill, who visited it in 1833, observes, in his notice contained in the "Edinburgh Philosophical Journal" of that date, that "considerable spoliations have evidently been committed on the tree since 1769; large arms have been removed, and masses of the trunk itself carried off by the country-people, with the view of forming *quechs*, or drinking cups, and other relics which visitors were in the habit of demanding. What still exists of the trunk now (1833) presents the appearance of a semicircular wall, exclusive of the remains of some decayed portions of it which scarcely rise above ground. The side of the trunk" (he adds) "now existing, gives a diameter of more than fifteen feet, so that it is easy to conceive that the circumference of the bole when entire should have exceeded fifty feet." Inch Lonach in Loch Lomond, commonly known by the name of the Yew tree Island, was formerly covered with a wood of these trees, and Sir T. D. Lauder specifies two individuals upon it, which, when measured, in 1770, were found, the one upwards of ten feet, the other thirteen feet in circumference. Subsequent to this date the produce of the island was doomed to the axe, and three hundred beautiful Yew trees cut down upon it at once. The same author mentions a huge and ancient Yew tree that grew upon the Island

of Bernera, adjacent to the Sound of Mull, and which was cut down by the late Sir Duncan Campbell. "Its precise dimensions," he adds, "were not preserved, but the timber of it deeply loaded a Highland six-oared boat, and was sufficient to form a large elegant staircase in the house of Lochnell, which was afterwards burnt."

At Loudon Castle in Ayrshire is a famous Yew, forty-two feet high and upwards of fourteen feet in circumference at twelve feet from the ground. Under this tree the Bruce is said to have bestowed the ancient castle and estate on the Loudon family. The Dryburgh Yew, supposed to have been planted at the time the abbey was founded in 1136, is still a fine flourishing tree, and its branches cover a space whose diameter is fifty feet. The girth of its trunk is twelve feet. It is a female, and produces abundance of berries, from which we have raised several plants. Sir T. D. Lauder mentions the Ormiston Yew, growing in the garden at Ormiston Hall, a seat of the Earl of Haddington, in Haddingtonshire, as one of the most beautiful Yew trees in Scotland. Its head covers an area of fifty-eight feet in diameter, and its greatest girth at five feet above the ground is nearly eighteen feet. In Ireland, the Mucruss Abbey Yew is supposed to be coeval with the building, which existed, and was celebrated as a sanctuary in 1180. Hayes, also, in 1794, records several Yew trees of considerable dimensions and great age, as existing at that time in Ireland.

Besides the Yews already mentioned, there are many others, in various parts of the kingdom, scarcely their inferiors, either in point of antiquity or dimensions, but which the limits of our work oblige us to omit; there are, also, numerous examples, of a younger age, in a

growing and flourishing state, which bid fair, in process of time, to rival the giants of their race. Among these we shall only mention a Yew in the grounds of J. M. F. Doveston, at Westfalton, near Shrewsbury, which, from its rapid growth and pendulous habit, promises to be a variety well-deserving of extended cultivation; added to which it has the uncommon property of being mon-œcious, one of its branches producing exuberant crops of berries, while all the rest are covered with male flowers. This tree, scarcely seventy years old, at five feet from the ground, is already upwards of five feet in girth. At Twizell, about eighteen years planted, it is seventeen feet high, diameter of the trunk seven inches.

In selecting Yew plants, particularly where timber is the object in view, attention should be given to the habit and mode of growth of the young individuals, and those should be preferred which show a strong and upright tendency, with broad healthy-looking leaves; for we find from experience that out of a bed of seedlings there are generally several which, instead of advancing upwards, or throwing their main growth into the leading stem, seem to expend their strength upon the elongation of the lateral branches; at Twizell, a Yew of this description, planted upon the lawn, though only ten feet high, covers with its side branches an area of a diameter of twenty-four feet. The Yew, with the exception of its varieties, is best propagated from seeds, and, as the berries are produced in great abundance by the female plants, there is seldom any difficulty in procuring an adequate supply, provided the trees are protected from the depredations of the thrush tribe during the period of the colouring or ripening of the fruit. After being gathered, they may either be sown immediately in their pulp, or be kept in sand during the

winter to rot off the enveloping matter, and sown in spring; in each of these cases the plant makes its appearance the second year, whereas if the pulp is allowed to dry round the nuts, and these are kept in that state till the following spring, none of them will vegetate till the third year. After remaining in the seed bed a couple of years they should be run into rows, and undergo the usual routine of the nursery till they are two or three feet high, or even much larger, as no tree transplants with greater certainty of success than the Yew, from the mass of succulent roots it emits and the ease with which a considerable portion of the adhering earth may be moved with it. For Yew hedges Boucher recommends plants of seven or eight years' growth, at which age, if they have been properly attended to, they ought to be from seven to eight feet high. Transplanting may safely be performed during eight or nine months in the year, commencing in autumn and continuing during the winter and spring, until renewed vegetation becomes evident in the swelling and bursting of the terminal buds; precaution, however, ought to be taken, in case of long-continued droughts in spring, to refresh the plants by copious and frequent waterings, and in winter newly-inserted plants should be protected from very severe frosts and biting winds, by branches or any other slight covering. The Yew may also be raised from cuttings, which strike pretty readily, particularly when slipped with a heel and run into soil chiefly consisting of sand and shaded from the sun; in this way, the upright, or Irish Yew, and other varieties are propagated. The cuttings should be made of shoots of one or two years' growth, and they are generally two years in becoming sufficiently rooted to be removed and treated as seedling plants. Amongst

the varieties the *Taxus b. fastigiata*, Lindl., Irish or Upright Yew, is well deserving of extensive propagation as an ornamental evergreen, distinctly marked from the common species by its cypress-like form, which tree it may be supposed to represent in our colder climate, and by the disposition of its leaves, which, instead of being in two ranks, like the species, are scattered around the stem. This variety was first discovered in the neighbourhood of Florence Court, Fermanagh, and the original tree, we believe, still exists in a healthy state. It has been extensively propagated in Ireland, and, when last in the north of that island, we saw fine specimens in the neighbourhood of Belfast and Antrim, near which place is the large specimen from which figure 1982 in the "Arboretum Britannicum" was taken. In Scotland there are several fine examples of this variety; Loudon mentions two trees at Nether-place in Ayrshire, and another at Balcarras, in Ayrshire, which is above fifteen feet high. At Jardine Hall, Dumfriesshire, there is a fine plant in the garden, about fifteen feet high; this has frequently produced berries, (the original tree from which they have all been propagated being a female,) from which plants have been raised, but, Sir William Jardine informs me, that none have yet shown the fastigate growth of the parent; Loudon, however, mentions a seedling from this variety, in the Horticultural Gardens, Chiswick, which shows the upright growth of the Irish Yew, but has the leaves disposed as in the common species. The Yellow-fruited Yew, *Tax. b. fructu-luteo* is another variety, also first discovered in Ireland; except in the colour of its berries, it resembles the common Yew. A third variety is the *Tax. b. foliis variegata*, Variegated Yew, the leaves being striped with whitish yellow; this is an unhealthy-

looking plant, seldom found higher than a large shrub, and not worthy of a place in the shrubbery.

The Yew is subject to few accidents from the elements, the tough nature of the wood of the branches resisting the severest storms of wind, and, when loaded with snow, yielding, without breaking, to the weight, or without being torn from their sockets, as is so frequently the case with many other trees and evergreens. The wood, as well as the foliage, is remarkably free from the attacks of insects, as we know of no lepidopterous, and few other larva which make it their food, and the only parasitic plant found in any quantity upon it appears to be the *Sphæria Taxi*.





WORKS OF UNIFORM SIZE.

PROFESSOR RYMER JONES'S GENERAL OUTLINE OF THE ANIMAL KINGDOM, AND MANUAL OF COMPARATIVE ANATOMY. In one thick volume, 8vo. containing 350 Illustrations, price 1*l.* 18*s.* Royal 8vo. 3*l.* 16*s.* Imperial 8vo. 5*l.* 14*s.*

PROFESSOR BELL'S HISTORY OF BRITISH QUADRUPEDS AND CETACEA. 8vo. with 200 Illustrations, 1*l.* 8*s.* Royal 8vo. 2*l.* 16*s.* Imperial 8vo. 4*l.* 4*s.*

MR. YARRELL'S HISTORY OF BRITISH BIRDS. 28 Parts, published at 2*s.* 6*d.* each. Royal 8vo. 5*s.* each part. The Imperial 8vo. edition will not be delivered until the work is complete.

PROFESSOR BELL'S HISTORY OF BRITISH REPTILES, with more than 40 Illustrations. 8*s.* 6*d.* Royal 8vo. 17*s.* Imperial 8vo. 1*l.* 5*s.* 6*d.*

MR. YARRELL'S HISTORY OF BRITISH FISHES. Two volumes. A New Edition, with considerable additions, price 3*l.* A Supplement to First Edition, 7*s.* 6*d.* Royal 8vo. 15*s.* Imperial 8vo. 1*l.* 2*s.* 6*d.*

MR. FORBES'S HISTORY OF BRITISH STARFISHES, SEA-URCHINS, and the other Animals forming the Class ECHINODERMATA, 8vo. with 120 Illustrations, 15*s.* Royal 8vo. 1*l.* 10*s.*

MR. SELBY'S HISTORY OF BRITISH FOREST TREES. To be completed in Ten Parts, Seven published, at 2*s.* 6*d.* each. Royal 8vo. 5*s.*

MR. NEWMAN'S HISTORY OF BRITISH FERNS, 87 Illustrations, 8vo. 10*s.*

INDEX GEOLOGICUS: designed, arranged, and published under the auspices of the Geological Section of the Devon and Cornwall Natural History Society, by G. Bartlett, one of the Vice-presidents, to exhibit chiefly the distribution of the metals and minerals in igneous or metaphoric rocks, or in stratified deposits; the classification and arrangement of the organic remains, by which the origin and ages of the latter have been determined during modern researches; showing also the general agricultural features of each geologically portrayed surface; with the distribution of the rare and characteristic plants and naturalised exotics of the British Flora. Price, on a roller for suspension in the library, or in a case for the shelf, 30*s.*

A CORNISH FAUNA, being a Compendium of the Natural History of the County. Part I, containing the Vertebrate, Crustacean, and a portion of the Radiate Animals. By Jonathan Couch, F.L.S. &c. &c. 8vo. price 2*s.*

A TREATISE ON THE MANAGEMENT OF FRESH-WATER FISH, with a view to making them a source of profit to landed proprietors. By GOTTLIEB BOCCIUS, with a woodcut of the Spiegel, or Mirror Carp. 8vo. price 5*s.*

A NEW EDITION OF MR. YARRELL'S HISTORY OF BRITISH FISHES. This second edition contains thirty-seven new species not included in the first edition, the whole number being now two hundred and sixty-three. Twenty-seven fishes have been newly engraved, and thirty-four new vignettes added. The work now contains nearly five hundred woodcuts. 2 vols. 8vo. price 3*l.*

JOHN VAN VOORST, PATERNOSTER ROW.