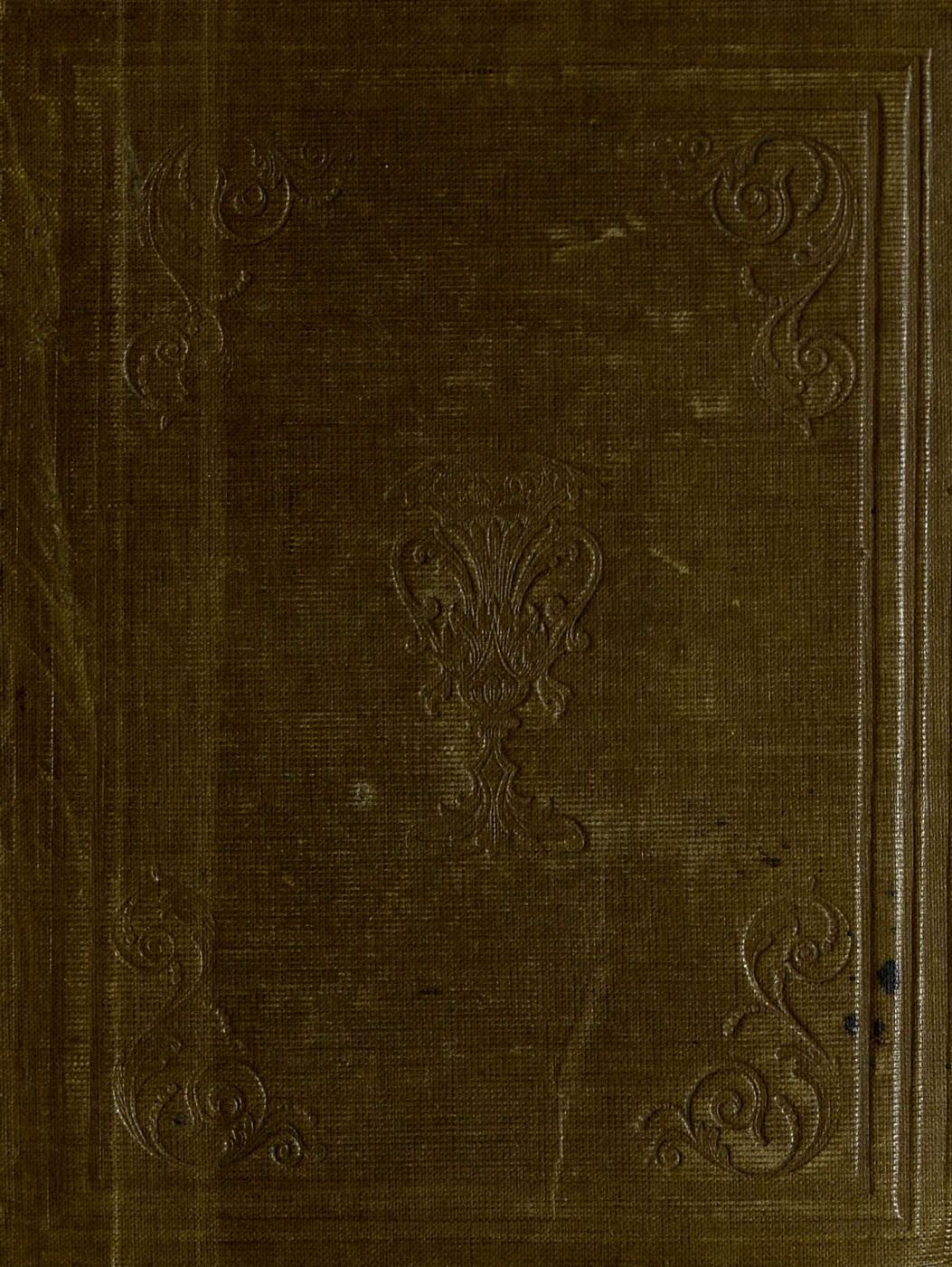

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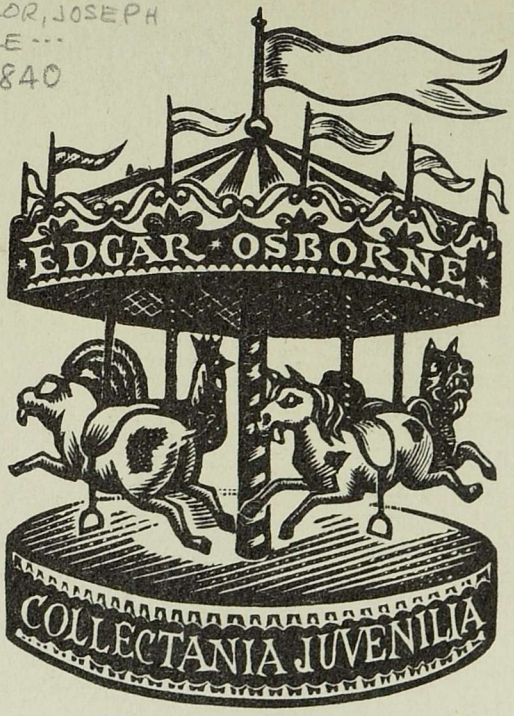

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THE

BIBLE GARDEN.

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BIBLE GARDEN.

DEAN AND MUNDAY, PRINTERS,
THREADNEEDLE-STREET, LONDON.

PALM TREES.

THE BIBLE GARDEN:

containing

a brief description of all the

TREES and PLANTS,

mentioned in the

HOLY SCRIPTURES.

— by —

JOSEPH TAYLOR.

The Illustrations selected and etched on Steel by

W. H. Brooke F.S.A.

"The Myrtles that deck the gay Bowers,
The herbage that springs from the sod;
Trees, plants, cooling fruits and sweet flowers,
All rise to the praise of my God".

Oratorio of Abel.

SECOND EDITION
Revised & Corrected.

LONDON

Dean & Munday, Threadneedle Street.

THE

BIBLE GARDEN:

OR,

A FAMILIAR DESCRIPTION

OF THE

TREES, PLANTS, SHRUBS, AND HERBS,

MENTIONED IN

THE HOLY SCRIPTURES.

BY JOSEPH TAYLOR,

AUTHOR OF "REMARKABLE PROVIDENCES,"—"NATURE THE BEST PHYSICIAN," "INSTRUCTIVE POCKET COMPANION," &c. &c.

I will plant in the wilderness the Cedar, the Shittah-tree, and the Myrtle, and the Oil-tree; I will set in the desert the Fir-tree, and the Pine, and the Box-tree, together.

ISAIAH, xli. 19.

SECOND EDITION.

LONDON:

DEAN AND MUNDAY, THREADNEEDLE-STREET.

PREFACE.

On reading the Bible, when a boy, my curiosity was greatly excited when I came to the words "Almug, and Gopher-wood trees;" and also to the names of Spikenard, Anise, Cummin, and several other herbs and plants mentioned by the prophets and apostles: I much wished to see some of those plants so frequently mentioned in Holy writ, and to examine their properties, but at that time my wishes could not be gratified.

As I advanced in years, I read, with inexpressible delight, the works of Mr. Ray, Dr. Derham, and other eminent naturalists, and was much pleased with their descriptions of the wonderful works of Nature; but felt disappointed at the concluding declaration of one of these writers, (I forget which,) that in consequence of age and infirmities, he was under the necessity of declining to put in practice his favourite projection, of forming a work to be called "The Bible Garden," or a description of the trees, plants, and flowers, mentioned in Scripture.—This was to me a great disappointment, as I had a thirst for such knowledge, and was

very partial to botanical information. After frequently revolving the subject in my mind, I was at length induced to exert my utmost efforts to form, in the best manner I possibly could, a small volume on this truly interesting subject; a subject so delightful and improving in itself, that I trust a pursuit of the same kind must be gratifying to all rational persons.—"In almost every description of the seats of the blessed, (says an elegant writer), ideas of a garden seems to have predominated."

The word Paradise itself is synonymous with Garden.—The fields of Elysium, that sweet region of poesy,

are adorned with all that imagination can conceive to be delightful. Some of the most pleasing passages of Milton are those in which he represents the happy pair engaged in cultivating their blissful abode.—Lucan is represented by Juvenal, as reposing in his garden; and Solomon, that great and wise King, "planted him vineyards, and made him gardens and orchards; and planted in them trees, and all kinds of fruit:" Trees, independent of their general uses, are also emblematic of the passions, and are calculated to awaken apposite feelings in the mind. In all ages, characters have been assigned them.—The Olive is an em-

blem of peace;—the PALM, of victory; —the OAK, of strength;—the WILLOW, of sorrow.—The psalmist, pursuing this analogy, represents the captive Jews bewailing their exile, and hanging their unstrung harps upon the Willows of Babylon.

To render this little work a pleasing and profitable companion to all admirers of Scripture history, a short description of each plant follows the sacred text, as given by the most celebrated writers on Biblical subjects; and the whole being illustrated with many plants, correctly drawn, and neatly engraven on steel plates by that esteemed artist, W. H. Brooke, esq. F. A. S. the Author hopes

this unique little volume will be kindly received by the serious public, and that the enchanting study of Scripture Botany will no longer be neglected, but in the words of the poet, they will agree, that

> Take but the humblest Lily of the field,
> And if our pride will to our reason yield,
> It must by sure comparison be shown,
> That on the royal seat, great David's son,
> Array'd in all his robes, and types of power,
> Shines with less glory than that simple flower.

JOSEPH TAYLOR.

Manor-place, Clapham.

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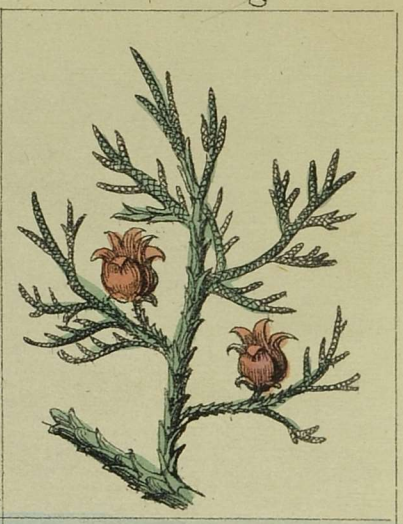


Apples (Citron) Ash Tree.

ALMOND-TREE

Amygdalus Communis.—Plate 1.

And it came to pass, that on the morrow Moses went into the tabernacle of witness; and, behold, the rod of Aaron for the house of Levi was budded, and brought forth buds, and bloomed blossoms, and yielded *almonds.—Numbers*, xvii. 8.

The Almond-tree is a native of Judæa, blossoming in January, and by March producing fruit, and much resembles the peach-tree; it also deserves to be mentioned among the spontaneous productions of Spain and Portugal, France, Italy, Barbary, and other warm countries. The flowers of

the Almond are pentapetalous, consisting of five leaves ranged like a rose, and the pistil becomes a fleshy fruit, containing a seed or kernel enclosed in a stone, which is the Almond, and which drops out when the fruit is arrived at maturity. Almonds are of two kinds, sweet and bitter; the former are of a most grateful taste, and reputed as cooling, healing, emollient, and nutritive; the oil drawn from them is a safe and useful remedy in nephitic pains, and in hoarseness, coughs, asthmas, and all disorders of the chest; the latter sort are seldom eaten, on account of their bitterness, but they afford a proper medicine on many occasions, being of a stimulating, detergent, and aperient quality.

The rod of Aaron, which Moses displayed

to the Children of Israel as bearing blossoms and fruit in the wilderness, and by this securing to him the priesthood, was a branch of the Almond-tree.

ALMUG-TREE.

Pinus Orientalis.—Plate 1.

And the navy also of Hiram, that brought gold from Ophir brought in from Ophir great plenty of *almug-trees* and precious stones. And the king made of the *almug-trees* pillars for the house of the Lord, and for the king's house, harps also and psalteries for singers: there came no such *almug-trees*, nor were seen unto this day.—*I Kings*, x. 11, 12.

Commentators generally suppose the Almug-tree to be of that species which produces gum Arabic, and that it is the same with Moses' shittim wood; the word

Aloe-Wood Tree. 2 Aloe plant.

Barley. Anise.

a beautiful polish, and has ever been considered invaluable, being impenetrable to the worm, and possessing a similar fragrant smell to that of the cedar.

ALOES.

Aloe Succotrina.—Plate 2.

ALL thy garments smell of myrrh, and *aloes*, and cassia, out of the ivory palaces whereby they have made thee glad.—*Psalm* xlv. 6.

And there came also Nicodemus, which at the first came to Jesus by night, and brought a mixture of myrrh and *aloes*, about an hundred pounds weight.—*John*, xix. 39.

ALOES is a precious wood used in the East for perfumes, and the drug prepared from it is useful for embalming bodies. The best sort of Aloes is of a higher price than

gold, and was considered the most valuable present given by the King of Siam to the King of France in 1686. The choicest of this kind grows in the island of Ceylon and Sumatra, in Asia, and near Cape Comorin in Hindostan; it also is found in Judæa, growing from the height of three to twelve feet, its leaves are prickly and thick, and a very bitter gum is extracted from it, now used for medicinal purposes, and anciently for embalming dead bodies.

LIGN ALOE.

Agallochum.—Plate 2.

As the valleys are they spread forth, as gardens by the river's side, as the trees of *lign aloes* which the Lord hath planted, and as cedar trees beside the waters.—*Numbers*, xxiv. 6.

THIS is a small tree growing from six to ten feet high, the flowers of which yield a fragrant effluvia, perfuming all around; and its strong aromatic odour has always been esteemed amongst the Eastern nations as the most precious for perfuming their habits and apartments.

The Aloes of Syria, Rhodes, and Candia, called Aspalathu, is a shrub full of thorns; the wood is used by perfumers, after they

have taken off the bark to give consistency to their perfumes.

ANISE.

Anethum graveolens.—Plate 2.

Woe unto you, Scribes and Pharisees, hypocrites! for ye pay tithe of mint, and *anise*, and cummin, and have omitted the weightier matters of the law, judgment, mercy, and faith; these ought ye to have done, and not to leave the other undone.—*Matthew*, xxiii. 23.

Anise, or *Pimpenella*, is an aromatic annual plant much used in medicine. It is a native of Egypt, but cultivated abundantly in Malta and Spain; and in our physical herb gardens it flowers in the month of July. It is a delicate plant, and rises only about one foot in height: the

stem is striated, smooth, jointed, and branching; the lower leaves are roundish, lobed and toothed; but the upper ones are divided into narrow pinnated segments: the flowers are small and white, in flat terminal umbals; the seeds are oblong, swelling, and of a greenish colour.

The Anise grown in this country ripens its seed sufficiently to be gathered about the middle of August; a considerable quantity is cultivated at Mitcham, in Surrey, chiefly for the use of the rectifiers of British spirits. A greater quantity of seed, however, than is grown here, is annually imported from Malta and Spain, and an inferior sort from Germany; the Spanish is small, usually called *Alicant* Aniseed, and is generally preferred.

APPLE-TREE.

Pyrus Malus.—Plate 1.

A WORD fitly spoken is like *apples* of gold in pictures of silver.—*Proverbs*, xxv. 11.

BY this expression, Bishop Louth remarks, Solomon means that weighty and hidden meanings are as much commended by a concise and well-turned speech, as apples exquisite for their colour appear more lovely and pleasing when they shine through the net-work of a silver basket delicately chased.

The Apple-tree of this country, *Malus Sativa,* grows to a considerable size, with spreading branches rather more depressed

than those of the pear-tree; the flower consists of five leaves, which expand in the form of a rose, with yellow apices in the middle, and a green calyx divided into five parts, which turns to a fleshy, roundish fruit, generally umbilicated at each end, and are of different sizes and shapes according to the different kinds of fruit, which are generally so well known as to need no description.

The native wild crab is subject to considerable diversity in the appearance of its leaves, as well as in the colour, shape, and flavour of its fruit; by selecting and cultivating the best of these, all our varieties have been produced: several have also been brought from Normandy, and other parts of the Continent.

Our present translation of the Bible, however, is now considered erroneous, in having rendered the original, Apples, which with much greater propriety ought to have been translated Citron. This tree is noble, large, and beautiful; its leaves never falling off; of an exquisite smell, and affording a delightful shade: it is peculiar to the garden of Cairo, Rosetta, and Judea; and the taste and exhilirating effects of the fruit are so delicious, that the comparison is much more suitable to the Song of Solomon, xi. 3, 5,—vii. 8,—viii. 5, than that of Apples, which, in Egypt, Rhodes, and Damascus, are bad and ill-flavoured.

ASH-TREE.

Arbor Arabica spinosa baccifera.—Plate 1.

He heweth him down cedars, and taketh the cypress and the oak, which he strengtheneth for himself among the trees of the forest; he planteth an *ash*, and the rain doth nourish it. *Isaiah*, xliv. 14.

The Septuagint and Vulgate translation of the Scriptures render this as the pine tree; it seems, however, to denote a vibrating tree shaken by the wind, much more descriptive of the Ash than of the pine, to which species both the cedar and cypress, mentioned in the first part of the verse, more particularly belong. It is a well-known tree, grows rapidly, and the wood is of almost universal use.

BALM.

Aymris Gileadensis.—Plate 4.

And they sat down to eat bread: and they lifted up their eyes and looked, and behold a company of Ishmaelites came from Gilead with their camels bearing spicery, and *balm*, and myrrh, going to carry it down to Egypt.—*Genesis*, xxxvii. 25.

Is there no *balm* in Gilead? is there no physician there?—why then is not the health of the daughter of my people recovered?—*Jeremiah*, viii. 22.

This is evidently the Balm of Gilead, so much celebrated by Strabo, Pliny, Diodorus, Siculus, and others, for its costliness and medicinal virtues, and is the product of a particular spot in Judæa. The word Balsamon is derived from the Hebrew Baal-shemen, signifying "*Royal Oil*," or

the most precious of all perfumed oils. Josephus states that the tree was originally brought by the Queen of Sheba as a present to King Solomon, out of Arabia Felix.

BALSAM-TREE.

Balsamum Judaicum.—Plate 3.

An evergreen shrub, and a native of Arabia Felix, growing to about fourteen feet high without culture, along the coast of Babelmandel; the trunk is about ten inches in diameter, and covered with a smooth bark; its flowers are like those of the acacia, but the tree being flattened at top has a stunted appearance. The three

kinds of Balsam extracted from this tree, were Opo-balsamum, which flowed spontaneously by incision; Carpo-balsamum, by expressing the ripe fruit; and Hylo-balsamum, by a decoction of the young tender twigs and the buds of the flowers; this latter was held the lowest in estimation. The vineyards of En-gedi, mentioned in the Song of Solomon, are believed to have been gardens of the Balsam Tree. This tree is still cultivated in the plains of Jericho, one species of which is described as being similar in form to the fir and palm trees, though not so lofty.

BARLEY.

Hordeum. Holcus Shœir.—Plate 2.

And Solomon had forty thousand stalls of horses for his chariots, and twelve thousand horsemen; and those officers provided victuals for King Solomon, and for all that came to King Solomon's table, every man in his month: they lacked nothing: *barley* also and straw for the horses and dromedaries brought they unto the place where the officers were, every man according to his charge.—*I Kings*, iv. 26—28.

So Naomi returned, and Ruth the Moabitess, her daughter-in-law with her, which returned out of the country of Moab; and they came to Bethlehem in the beginning of the *barley* harvest.—*Ruth*, i. 22.

So she gleaned in the field until even, and beat out that she had gleaned; and it was about an ephah of *barley*.—*Ruth*, ii. 17.

Barley is mentioned in two or three other places of the book of Ruth, and also in various parts of the Bible.

In Palestine, this well-known grain was sown in Autumn and reaped in Spring; the Rabbis sometimes call it the food of beasts, because they fed their cattle with it, I Kings, iv. 38. At the trial of women for adultery among the Jews, the offering was of Barley-meal, whereon no oil was poured nor frankincense put, because it was a sacrifice of jealousy, Numbers, v. 15. The Jews frequently ate Barley-bread, and Christ and his Apostles had no other provision than five Barley-loaves and two small fishes, John, vi. 9. Hosea says, (iii. 2) that he bought his wife for fifteen pieces of silver, and an omer and a half of Barley. Barley is used sometimes to signify a thing of low price. Ezekiel (xiii. 19) complains of false prophets who seduced the Lord's

people, and made vain promises to them, for a handful of Barley and a morsel of bread.

BAY-TREE.

Laurus Nobilis.—Plate 3.

I HAVE seen the wicked in great power, and spreading himself like a green *bay-tree.—Psalm* xxxvii. 35.

THE name of this tree occurs only once in the Holy Scriptures, and is translated in the Septuagint and Vulgate, as *cedar*; but in the old Saxon version, and the High Dutch of Luther's Bible, the French, Spanish, and the Italian translation, it is rendered the *laurel*, to which the brilliant

green of its foliage, and its general flourishing appearance, is more peculiarly applicable.

BEANS.

Faba rotunda oblongata.—Plate 3.

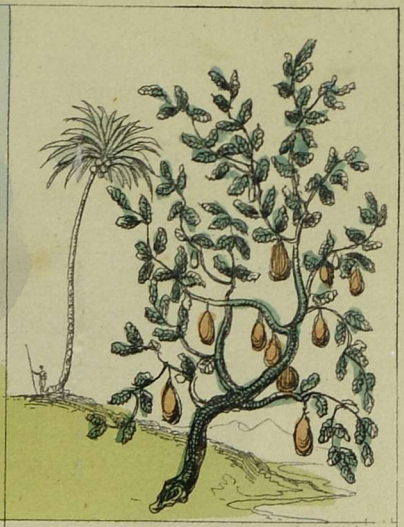
TAKE thou unto thee wheat, and barley, and *beans*, and lentiles, and millet, and fitches, and put them into one vessel, and make thee bread thereof.—*Ezekiel*, iv. 9.

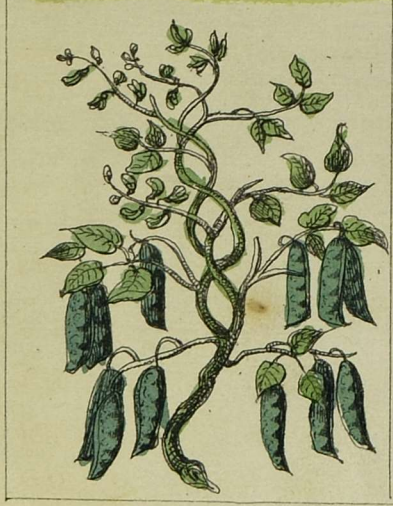
And it came to pass when David was come to Mahanaim, that Shobi, and Machir, and Barzillai the Gileadite, brought beds, and basons, and earthen vessels, and wheat, and barley, and flour, and parched corn, and *beans*, and lentiles, and parched pulse.—*II Samuel*, xvii. 27, 28.

BEANS are a description of pulse, which is the usual term for leguminous plants, and are much cultivated in Syria, Africa, and Egypt, of which the most common

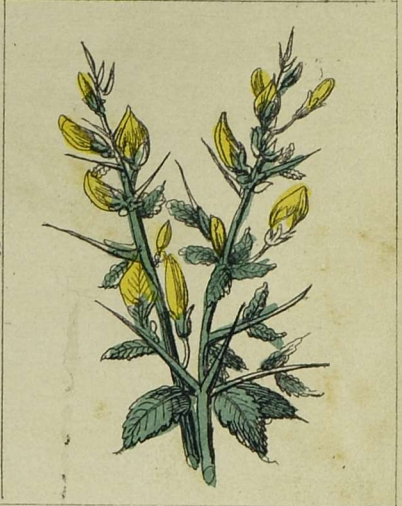
Bay Trees.

Balsam Tree.





Beans.



Bramble.

sorts are the kidney-bean and the white horse-bean, much in use as food by the inhabitants, and is there called by the name of *ful*-bean, in Hebrew *phul*, and in Arabic, *phoulon*, from whence most probably is derived the term of pulse.

BOX-TREE.

Buxus sempervirens.—Plate 4.

I WILL plant in the wilderness the cedar, the shittah-tree, and the myrtle, and the oil tree; I will set in the desert the fir tree, and the pine, and the *box-tree* together.—*Isaiah*, xli. 19.

The glory of Lebanon shall come unto thee, the fir tree, the pine tree, and the *box-tree* together, to beautify the place of my sanctuary; and I will make the place of my feet glorious.—*Isaiah*, lx. 13.

ALMOST all the translators of the Holy Bible, both ancient and modern, have rendered this as the buxus, or box-tree, being classed along with the trees of the forest. There are six kinds of the Box-tree; its flower is of the apetulous kind, composed of several stamina, arising from

Balm (of Gilead)

Box.

Brier.

Cypress.

the square bottom of a cup of leaves; this flower is barren, and the embryo fruit appears in other parts of the plant, which when ripe is like an inverted vessel, and burst, into three parts, in each of which a case containing seed is found. This shrub is evergreen, and is much used for ornamenting gardens: the wood is yellow, and so very solid and heavy that it does not swim in water, and so hard that it can scarcely rot or be worm-eaten, and easily takes a fine polish. Saints are likened to Box-trees for their comeliness, true solidity, and steadfastness, and the incorruptibily of their grace.

This tree is a native of the South and East, and preserves its verdure during the most severe winters in our northern cli-

mates; the ancients held the Box-tree in great estimation, as it is susceptible of being cut into various forms; as such, it was also many years ago considered an ornament in the gardens of our country, but this has long ceased to be a fashion.

In the entertaining letters of the younger Pliny, we read that at his country-seat, there are Box-trees cut into the forms of men on horseback; a huntsman preceded by his hounds, various quadrupeds, elegant vases, &c. &c.; and there was also in this great man's garden a Box-tree of vast dimensions, cut into different apartments; in the centre was a verdant saloon, enlivened by the warbling of birds, in which was introduced a waterfall, that rushed into a marble bason covered with moss;

this charming retreat was decorated with a bench of white marble all round.

The late Sir Henry Mildmay, when in possession of his estate upon Box Hill, in Surrey, sold the box for fifteen thousand pounds; the purchaser was to be allowed fourteen years to cut it down. In the year 1802, fifty tons were cut.

BRAMBLE.

Synobastus.—Plate 3.

And thorns shall come up in her palaces, nettles and *brambles* in the fortresses thereof; it shall be an habitation of dragons, and a court for owls.—*Isaiah*, xxxiv. 13.

This, in common with the briar and the thorn, means a prickly, tangling shrub,

well known in this country; it is, however, indigenous to Palestine and all the East, where it grows, as with us, stunted, low, and overrunning uncultivated lands; it is one of the most painful inconveniences of the vegetable thickets of Egypt. The original word "*atad*," frequently occurs in the Scriptures, and has been variously rendered in our present English translation of the Bible, as Bramble, thorn, brier, &c.

BRIER.

Carduus Arabicus.—Plate 4.

And I will lay thy vineyard waste; it shall not be pruned nor digged; but there shall come up *briers* and thorns. I will also command the clouds that they rain no more rain upon it.—*Isaiah*, v. 6.

Brier is a prickly sort of plant well known; figuratively, it means an enemy, Isaiah, x. 17; mischievous and hurtful persons, Ezekiel, xxviii. 24; sins, lusts, and corruptions, which spring from a stoney and unregenerated heart. Hebrews, vi. 8.

CALAMUS.

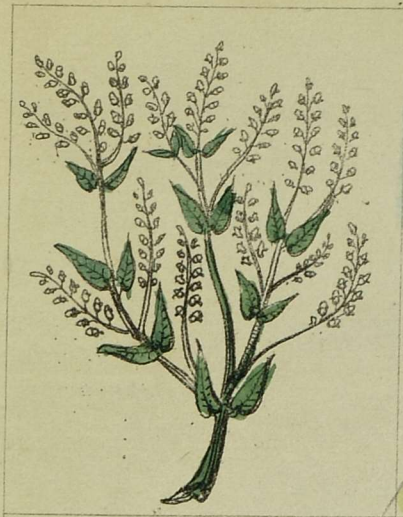
Calamus Aromaticus.—Plate 5.

TAKE thou also unto thee principal spices, of pure myrrh five hundred shekels, and of sweet cinnamon half so much, even two hundred and fifty shekels, and of sweet *calamus* two hundred and fifty shekels.—*Exodus*, xxx. 23.

Spikenard and saffron, *calamus* and cinnamon, with all trees of frankincense; myrrh and aloes with all the chief spices.—*Song of Sol.* iv. 14.

CALAMUS is a plant common to Syria and Arabia, and supposed by commentators to be the sweet cane mentioned in Jeremiah, vi. 20; and one of those precious perfumes which the Queen of Sheba presented to King Solomon; as when it is cut down, dried, and pulverized, it scents all the air around with the most fragrant smell, and

Calamus.



Camphire Tree.

Cassia.

Cinnamon plant.

is on that account still very much esteemed by the Arabs. Calamus is a kind of sweet Indian cane, and in form and appearance similar to what the Hollanders sell to us, and used for walking-sticks and other purposes.

CAMPHIRE.

Cyprus Al-henna.—Plate 5.

My beloved is unto me as a cluster of *camphire* in the vineyards of En-gedi.—*Song of Sol.* i. 14.

Thy plants are an orchard of pomegranates, with pleasant fruits; *camphire* with spikenard.—*Song of Sol.* iv. 13.

Camphor, or Camphire, is an odoriferous gum obtained from a tree called *Dryobalanopsis camphoru*, a native of the north-western coast of Sumatra: it grows to an amazing height, sometimes near three hun-

dred feet, and can scarcely be grasped by twenty men: the Camphor is formed in the heart of the tree, occupying portions of a foot to a foot and a half long, at certain distances; it is found in a concrete state, and resembles whitish flakes in perpendicular layers, occupying a space the thickness of a man's arm: a middle sized tree will yield nearly eleven pounds, and a large tree nearly double that quantity; it is also obtained from the wood, which is cut in chips and submitted to a kind of distillation. It is imported into this country in chests or casks, and is in small granular friable masses of a dirty white, resembling in appearance half refined sugar; it often contains earth and other impurities.

Camphor flames in an open fire, and when kindled burns till it is totally consumed; it also burns as it floats upon water, and sends forth a thick, dark smoke, which produces a blackish soot. Its specific gravity is less than that of water, which only acquires its smell, but does not visibly dissolve it. Camphor has a peculiar aromatic odour and a strong taste, and readily dissolves in æther or alcohol.

CASSIA.

Cassia Fistularis.—Plate 5.

And of *cassia* five hundred shekels after the shekel of the sanctuary.—*Exodus*, xxx. 24.

All thy garments smell of myrrh, aloes, and *cassia*, out of the ivory palaces, whereby they have made thee glad.—*Psalm* xlv. 8.

Cassia is said to be the bark of a tree, supposed the cinnamon, and that it grows in the East Indies: it is called *Kidda* by the Hebrew, and *Iris* in the Septuagint: it is a fine aromatic plant, and one of the ingredients in the composition of the Holy oil used in anointing the sacred vessels in the Tabernacle. The fruit of this tree is a round long woody dark brown, or rather

black pod, about one inch in diameter, and two feet in length; it is divided into numerous transverse cells, each containing one smooth, oval, yellowish, shining seed, embedded in a soft black pulp; the heaviest pods, in which the seeds do not rattle on being shaken, are the best, containing the greatest quantity of pulp, which is the part used for various medicinal purposes; has a slight, and somewhat sickly odour, and a mucilaginous taste.

CEDAR.

Pinus Cedrus.—Plate 6.

And he built the inner court with three rows of hewed stone, and a row of *cedar* beams.—*I Kings*, vi. 36.

They gave money also unto the masons, and to the carpenters; and meat, and drink, and oil, unto them of Zidon, and to them of Tyre, to bring *cedar* trees from Labanon to the sea of Joppa, according to the grant that they had of Cyrus, king of Persia.—*Ezra*, iii. 7.

THE Cedar tree is much celebrated in the Scriptures, and great quantities of them grew about Mount Labanon. This tree shoots out its massive branches at ten or twelve feet from the ground, they are large and spreading, and at some distance from one another; the leaves are something like rosemary, and always green; the wood

CEDAR OF LEBANON.

is incorruptible, beautiful, solid, and inclining to a brown colour, and distils a kind of gum, to which different effects are attributed. This tree bears a small cone or apple, like that of the pine. Cedar wood was made use of in all the public buildings of the Hebrews; and served not only for the beams and planks which covered those edifices, but was likewise placed in the substance of their walls; in which it was so disposed, together with the stone, that there were sometimes three rows of stone, and one of Cedar wood.

On the Mountain of Labanon there are some few of these ancient forest trees still remaining, of great dimensions, and growing to the height of eighty to one hundred feet; they are, however, fast dimi-

nishing, both in number and magnificence. About the year 1550, there were then reckoned twenty-eight Cedars of superior size and age, their trunks measuring from seven to nine feet in diameter; these trees formed a grove by themselves, and were situated in a hollow at the foot of the ridge of Mount Labanon. Maundrell, Pococke, Richardson, and Buckingham, who have since severally visited the Cedars of Mount Labanon, state, that but few indeed of these noble vestiges of its former grandeur and luxuriance, are now in existence.

On the 1st of January, 1779, a remarkably large Cedar tree was blown down in the park of George Peters, esq. at Hendenplace, Middlesex; its height was seventy feet, the diameter of the horizontal extent

CHESNUT TREE.

of the branches, one hundred feet; the circumference of the trunk, at seven feet from the ground, sixteen feet; and the limbs from six to twelve feet in girth. The gardener, two years before it was blown down, made fifty pounds by the sale of the cones.

CHESTNUT-TREE.

Plantanus Orientalis.—Plate 7.

The cedars in the garden of God could not hide him: the fir-trees were not like his boughs, and the *chestnut-trees* were not like his branches; nor any tree in the Garden of God was like unto him in his beauty.—*Ezekiel*, xxxi. 8.

THE Chestnut tree is a native of Arabia and Palestine, as well as Italy, and the southern parts of Europe; it grows to an

enormous size, and is remarkable for its longevity. The largest in the known world grow on the sides of Mount Etna, and some are found to be of great size in England.

As an ornamental tree, the Chestnut has great beauty, though it yields in elegance to the beech, and in dignity to the oak; as timber, it is often employed as a substitute for oak; and where no great dependance is to be placed on its strength, it answers extremely well; it is chiefly valued however, for making the staves of liquor casks, and as underwood for hop-poles; its fruit is relished by many animals, and may be employed as a substitute for flour.

CINNAMON.

Canella.—Plate 9.

MOREOVER the Lord spake unto Moses, saying, take thou also unto thee principal spices, of pure myrrh five hundred shekels, and of sweet *cinnamon* half so much, even two hundred and fifty shekels, and of sweet calamus two hundred and fifty shekels.—*Exodus*, xxx. 22, 23.

CINNAMON, a species of the laurel or bay tree. God commanded Moses (vide the above chapter) to take Cinnamon, &c. and make a perfumed oil, to anoint the tabernacle and the vessels belonging to it; beds were perfumed with Cinnamon, as appears from Proverbs, vii. 17. Saints and their graces are likened to Cinnamon, Song of Solomon, iv. 14.

The Cinnamon is a well known spice,

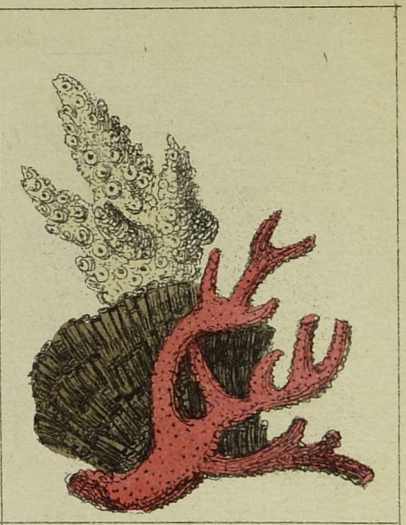
it being a bark or rind that is sometimes exceeding thin, and sometimes thick, and rolled up into tubes or pipes of different lengths; the substance is ligneous and fibrous, but brittle, and the colour is of a yellowish red, with an acrid, pungent, pleasant, and agreeable taste, and a most delightful smell.

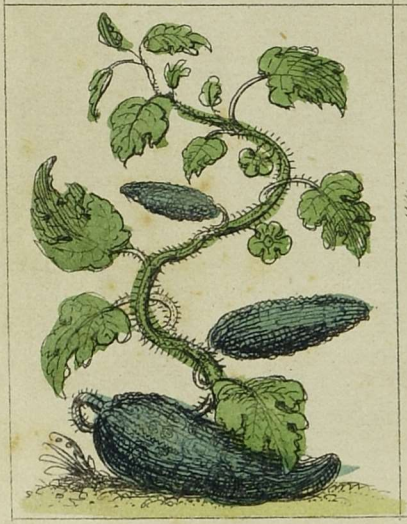
It is the second and inward bark of a tree called *Canella Zafanica*, a native of Arabia and Syria, it is commonly taken from trees that are three years old, in the spring or autumn; the ash coloured outside is taken off, and it is then cut into pieces, and exposed to the sun, and while drying it rolls itself up in the manner it is brought to us. When the tree is stript of its bark it continues naked for two or

three years, and then another grows again, which serves for the same purpose. When it is distilled fresh, it yields plenty of oil, but when old and dry, very little; however it is of two sorts, one of which sinks to the bottom of the water, and the other swims on the surface; this last is pale, but the former of a reddish yellow colour; they are both limpid, and of a most fragrant smell, and when tasted are very pungent. When the bark of the root is distilled, it yields an oil, with a volatile salt or camphire, which is lighter than water, limpid, yellowish, and soon flies away; it has a strong smell between camphire and cinnamon, and a very pungent taste. The camphire obtained from it, is exceedingly white, and has a much finer

smell than the common sort, but is extremely volatile, and takes fire immediately. The fruit of this tree is an oblong roundish berry, somewhat above the third of an inch long, smooth and green at first, but afterwards turns to a dusky blue, sprinkled with white specks; under the green pulp, there is a thin brittle shell, containing a roundish kernel. Cinnamon is common in the island of Ceylon, where it grows in as great abundance as Hazel trees with us. This valuable spice has lately been cultivated at Jamaica, with such success, that it is expected in a few years we shall, if necessary, be supplied with a sufficient quantity from our West India Islands.

Coriander. Coral.





Cucumber. Corn.

CORAL.

Gorgonia Coralloides.—Plate 8.

No mention shall be made of *coral*, or of pearls: for the price of wisdom is above rubies.—*Job*, xxviii. 18.

Syria was thy merchant, by reason of the multitudes of the wares of thy making: they occupied in thy fairs emeralds, purple, and broidered work, and fine linen, and *coral*, and agate.—*Ezekiel*, xxvii. 16.

Coral is a production of the sea, and was called a marine plant; it is now, however, classified as one of the natural order of the zoophytes; it grows on stones and rocks without any root, or without penetrating them as plants do the earth. The red Coral is found in several parts of

the world, but more particularly in the Ethiopic ocean, and the Mediterranean sea.

Coral usually grows in caverns, or on the prominent parts of rocks at the bottom of the sea, but it vegetates the contrary way to all other plants, the root adhering to the top of the cavern, and the branches shooting downwards.

For many ages, Coral was considered as a plant, and as deriving nourishment from its roots; modern investigation, however, has detected the error of this opinion, and placed it in its proper class. It is now ascertained to be the work of minute submarine insects, in the same manner as the honeycomb is that of the bee; and it is at once their habitation and their tomb.—

Hence it is that its peculiarity of appearance is accounted for.

It often becomes a rock, very dangerous to the navigator, and the more so from its sudden appearance in situations where it was not previously known.

There are three kinds of Coral, white, red, and black; but the first is the rarest, and the most esteemed.

CORIANDER.

Coriandrum Sativum.—Plate 8.

And the house of Israel called the name thereof manna: and it was like *coriander*-seed, white; and the taste of it was like wafers made with honey.—*Exodus*, xvi. 31.

Coriander is a native of Egypt, Arabia, and Italy, it also grows abundantly in many parts of this country; it is much used for medicinal and other purposes. It flowers in June, and the seeds ripen in August, the stem is erect, branching out, and about two feet in height; the flowers are white, or inclining to red, and the whole plant, when green, has a very disagreeable smell; the dried seeds have a

grateful aromatic odour, and a moderately warm pungent taste; they are carminative and stomachic, and are used by the confectioners in large quantities; when encrusted with sugar, they are called coriander comfits.

CORN.

Annona.—Plate 8.

And it came to pass that he went through the *corn*-fields on the Sabbath-day, and his disciples began as they went to pluck the ears of *corn.—Mark*, ii. 23.

We cannot sufficiently admire the wisdom manifested in the structure and vegetation of corn; those who are accustomed to reflection will discover it in the least stalk;

even the leaves which surround it before it has attained its full stalk, for the same reason that an architect raises a scaffolding round a building he is about to construct, and when it is finished removes the scaffolding; for when the Corn has acquired its full strength, the leaves which defended it dry and perish: it is some months before the ear ventures to appear and expose itself to the inclemency of the weather; but as soon as all the preparations for the flower and fruit are ready, it comes forth in a few days. The stalk and the ears of corn are both constructed with equal intelligence.

The Hebrew word for the stem of Corn is *Teben,* so called from the surprising and regular disposition of its structure, and

this structure displays the most eminent wisdom; it is proper that it should be somewhat tall, that its head may be sufficiently elevated above the earth; but then how difficult to support a vegetable to such a height as five feet, when it is not above the sixth part of an inch in diameter! here it is wonderfully contrived that it should be divided off into several partitions, and each separate part be strengthened by a knot, and that from each knot should proceed a ligament to preserve the division above it. Thus the unerring wisdom of the divine Creator may be traced even in a straw; nor is there any object in nature so minute, but it must lead the reflecting mind to the adorable Source of all.

A grain of Corn sown in the earth, soon corrupts and dies, but afterwards springs up entire; its very death is a disposition to renewed life. Hear our blessed Saviour's remark:

Verily, verily, I say unto you, except a corn of wheat fall into the ground and die, it abideth alone; but if it die, it bringeth forth much fruit.—*John*, xii. 24.

Thou fool, that which thou sowest is not quickened except it die, and that which thou sowest, thou sowest not the body that shall be, but bare grain; it may chance of wheat or of some other grain; but God giveth it a body as it hath pleased him, and to every seed his own body.—*I Corinthians*, xv. 36—38.

These are the essays of God's power in works of returning nature. Flowers and fruits in their season, instruct us how

easily he can make those that are in the dust awake to life eternal.

In like manner, as in every grain of Corn there is contained a small imperceptible or natural faculty, which is itself the entire future blade and ear, and in due season, when all the rest of the grain is corrupted, unfolds itself visibly into the form of the plant; so our present mortal and corruptible bodies, may be but the outer coat, as it were, of some hidden and at present imperceptible spark or germ of nature, which at the great day of the resurrection shall discover and unfold itself into its proper form.

CUCUMBER.

Cucumis Sativus.—Plate 8.

And the daughter of Zion is left as a cottage in a vineyard, as a lodge in a garden of *cucumbers*, as a besieged city.—*Isaiah*, i. 8.

Cucumbers of large size grew formerly in great plenty in Palestine and Egypt, where it is said they constituted the greatest part of the food of the poorer people and the slaves. This plant is thus noticed by ancient poets:

How Cucumbers along the surface creep
With crooked bodies, and with bellies deep.—

Dryden's Virgil.

The common Cucumber has straight roots with many white fibres, and thick,

long, branched, hairy stalks, creeping on the ground, on which are leaves alternately disposed, a palm or two in breadth, serrated on the edges, and rough to the touch; they are furnished with claspers; and the flowers proceed from the places where the leaves join to the stalks, which are in the form of a bell, divided into five segments, and half an inch in length. They are of a pale yellow colour; some are fruitful, and others barren; the fruitful have an embryo which ultimately becomes the Cucumber, and frequently growing to the length of sixteen inches, particularly in Palestine and Egypt, where it grows in great abundance, more palatable and wholesome, and of far superior growth and flavour to those of this country.

CUMMIN.

Cummimum.—Plate 9.

WHEN he hath made plain the face thereof, doth he not cast abroad the fitches, and scatter the *cummin*, and cast in the principal wheat, and the appointed barley and the rice in their place. For his GOD doth instruct him to discretion, and doth teach him. For the fitches are not threshed with a threshing instrument, neither is a cart-wheel turned about upon the *cummin*, but the fitches are beaten with a staff, and the *cummin* with a rod.—*Isaiah*, xxviii. 25—27.

WOE unto you, Scribes and Pharisees, hypocrites! for ye pay tithe of mint, and anise, and *cummin*, and have omitted the weightier matters of the law, judgment, mercy, and faith: these ought ye to have done, and not to leave the other undone. Ye blind guides, which strain at a gnat and swallow a camel.—*Matthew*, xxiii. 23, 24.

CUMMIN is a plant not much unlike fennel, and which produces its branches and blossoms in the form of a nosegay. The

Ebony . Flax .

Jews sowed it in their fields, and threshed it out with a rod. This plant is a native of Egypt, but the seeds used in Britain are brought chiefly from Sicily and Malta. Cummin seeds have a warm and somewhat bitter taste, accompanied with an aromatic flavour, not of the most agreeable kind, residing in a volatile oil, which is reckoned very serviceable in cases of rheumatism.

CYPRESS.

Cupressus Sempervirens.—Plate 4.

He heweth him down cedars, and taketh the *cypress* and the oak, which he strengtheneth for himself among the trees of the forest.—*Isaiah*, xliv. 14.

The Cypress-tree grows remarkably high, and has very great strength; it is an evergreen, and never either rots or is worm-eaten: the Romans reckoned it a fatal tree, and used it in funeral ceremonies.

——————— Poison be their drink;
Their sweetest shade a grove of Cypress-trees.

Shakspere.

Cypress wood is supposed to be imperishable, and is used for making musical instruments, chests, &c.

In ivory coffers I have stuffed my crowns,
In Cypress chests my arras counterpanes.

Shakspere.

The imperishable chests which contain the Egyptian mummies were of Cypress; and the gates of St. Peter's church at Rome, which had lasted from the time of Constantine to that of Pope Eugene IV., that is to say eleven hundred years, were also of Cypress, and had at that time suffered no visible decay. According to Thucydides, the Athenians buried the bodies of their heroes in coffins of Cypress, because the wood was not subject to decay.

This celebrated tree is a native of Arabia and Palestine; it grows towards the summits of Mount Lebanon and the mountains of Hermon; they have also been found on the summit of Mount Ida, and the mountains of Persia.

DATES.

Palmæ.—Plate 9.

And as soon as the commandment came abroad, the children of Israel brought in abundance of the first fruits of corn, wine, and oil, and honey,* and of all the increase of the field; and the tithe of all things brought they in abundantly.—*II Chronicles*, xxxi. 5.

Dates are the fruit of the palm-tree, they are brought to us from Egypt, Syria, Africa, and the Indies; the best come from Tunis and Persia. Among the Egyptions and Africans they constitute a principal article of food, but at the same time

* In the marginal notes of our English translation of the Bible, *Dates* are always mentioned after the words corn, wine, oil, &c. in the text.

are deemed an unwholesome diet; and persons who are in the habit of eating them in any quantity, are said to become scorbutic, and soon afterwards to loose their teeth; others, however, assert that they are a great restorative to dry and exhausted bodies, by augmenting the radical moisture: one particular species called *Palma Ægyptiaca* has been much commended for its virtues against drought.

> Fruits of the Palm-tree, pleasantest to thirst
> And hunger both.—MILTON.

Dates are in form something like acorns, have a thin, dusky yellow skin, with a fat, firm, sweet pulp, and a thick oblong hard stone, furrowed longways. The best Dates are those that are large, soft, and

yellowish, with few or no wrinkles, and are full of pulp. Dates grow beneath the broad spreading leaves of the palm-tree, in large clusters like grapes, and sometimes from three to four hundred pounds weight are annually gathered from a single palm-tree, while in its full growth and vigour.

EBONY.

Hebeninos. (*Vulgate.*)—*Plate* 9.

THE men of Dedan were thy merchants, many isles were the merchandise of thine hand; they brought thee for a present horns of ivory and *ebony*.—*Ezekiel*, xxvii. 15.

EBONY-WOOD is brought from the Indies; it is exceedingly hard and heavy, and

susceptible of a very fine polish, and on that account is used in Mosaic and inlaid works, toys, &c. There are many kinds of Ebony; those most in use amongst us are the black, red and green, all of them the product of the Island of Madagascar, where the natives call them indifferently *Hazon maintha,* black wood. The Island of St. Maurice, belonging to the Dutch, likewise furnishes part of the Ebonies used in Europe. The Indians made statues of their gods, and sceptres for their princes, of this wood. It was first brought to Rome by Pompey, after he subdued Mithridates: it is now much less used among us than formerly, since the discovery of so many ways of giving other hard woods a black colour.

Of green Ebony, besides Madagascar and St. Maurice, it grows on the Antilles, and especially in the Island of Tobago; the tree that yields it is very bushy, its leaves are smooth and of a fine green colour; under its bark is a white substance about two inches thick, all beneath which is a deep green approaching to black, though sometimes streaked with yellow veins; its use is not confined to Mosaic work, but is likewise used in dyeing, yielding a fine green tincture. As to the red Ebony, called also Grenadilla, we know but little more of it than the name.

Cabinet-makers, inlayers, &c. make pear-tree and other woods pass for Ebony, by giving them the same black colour; this is effected by a few washes of a strong

ELM TREE.

decoction of hot galls, to which is added a small quantity of vitriolated iron, and afterwards polished with a stiff brush and a little hot wax.

ELM TREE.

Ulmus Camestus.—Plate 10.

THEY sacrifice upon the tops of the mountains, and burn incense upon the hills, under oaks, and poplars, and *elms*, because the shadow thereof is good.—*Hosea*, iv. 13.

THE Elm is a well known and useful tree; its timber is good, the bark, leaves, and juice are medicinal, and used for the cure of burns, &c. This beautiful tree is of great value, and well adapted for groves and shady walks. The elm does not de-

stroy the grass, and its leaves are relished by horses, cows, goats, hogs, and sheep, all of which feed on them eagerly: the wood being hard and tough is used for making axles, mill-wheels, keels of boats, chairs, &c.: it is also frequently changed by art so as completely to resemble mahogany.

This tree affords subsistence for a variety of insects that feed upon it, but more particularly to the *Aphis* of the Elm, which generally causes the leaves to curl, so as to make itself a secure shelter against the weather.

We know not a finer rural object than an ancient avenue of Elms; there are many walks of this description in various parts of England, and a very fine one near

London, called Camberwell-grove: long may these fine avenues remain from the assaults of the unhallowed axe, too often raised at the nod of some spendthrift heir! then indeed the man of sentiment joins the poet in regretting the absence of these

"Venerable Elms, whose boughs had made
From winds a shelter, and from heat a shade;
That form'd a vista arched with living green,
Through which the distant seat was grandly seen:
Where cawing rooks were wont their nests to throng,
And feathered minstrels thrill'd their morning song."

This stately tree was too striking an object among the inhabitants of the grove to be neglected by the poets; it is frequently alluded to by Virgil. From the manner of the growth of this tree, its

use as a support for the weak and curling vine was universally deduced; nor is any rural circumstance more often mentioned by the poets, either in simile or description.

The practice of training vines in festoons, over corn and other fields, from one Elm or poplar to another, is still common in Lombardy, Tuscany, the City of Naples, and other parts of Italy. Nothing can be imagined more beautiful than the pendant foliage and fruit of the vine, offering the most agreeable shade from the rays of the sun, and enabling the spectator to contemplate the charming scenery around him, in the midst of the most refreshing coolness.

The Elm-tree has surprising productive

properties; one single tree will, at a moderate computation, produce 33,000,000 grains of seed in the space of one hundred years; and an Elm stock of twenty feet, will be found to contain 15,840,000,000 of seed.

Elm wood is the most durable of all woods, when placed in damp situations, from which peculiar property it has obtained the preference in making coffins.

FIGS.

Ficus Carica.– *Plate* 11.

And they sewed *fig-leaves* together and made themselves aprons.—*Genesis*, iii. 7.

And Isaiah said, take a lump of *figs*. And they took and laid it on the boil, and he recovered.—*II Kings*, xx. 7.

The Fig-tree and its fruit are well known in Palestine, and is very plentiful in Arabia, Barbary, Egypt, and the Isles of the Levant. Frequent mention is made of the Fig-tree in the Scriptures; our first parents used Fig-leaves as a covering; not, it is supposed, those gathered from the common Fig-tree, but the leaves of the Indian Fig, which are not only extremely large, but smooth and flexible; and also

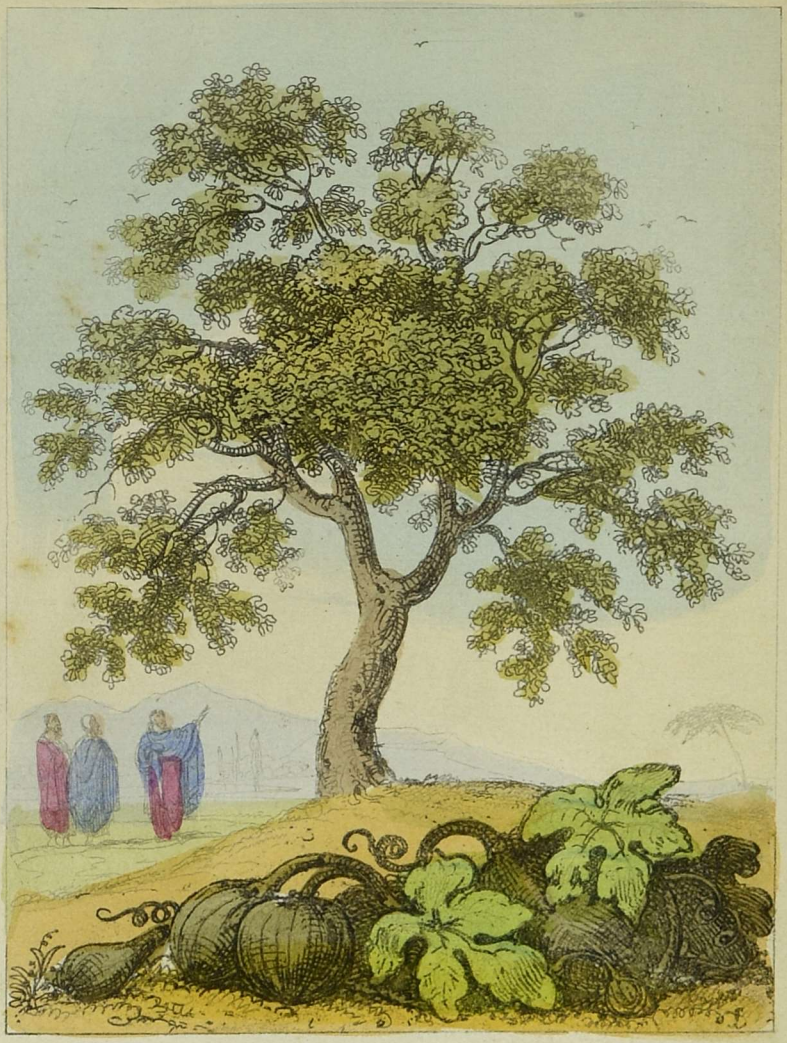


FIG TREE.

sufficiently coarse and tough for the purpose of making even aprons, umbrellas, and bed coverings.

This tree contains a milky or fat unctious liquor, and is very fruitful. M. Turnefort says that in the Islands of the Archipelago, one of their Fig-trees generally produces two hundred and eighty pounds weight of fruit. It becomes barren, either through the defect of the above-mentioned liquor, which the husbandmen cure by sweet water and manure, or through its great abundance, which is remedied by causing the superfluous juice to exude.

Physicians agree that Figs are employed with good success in bringing imposthumes to a ripeness, in healing ulcers, quinseys, and sore throats; and it is presumeable

that Hezekiah had some such disease, though the Scriptures make no particular mention of such a circumstance.

The fruit is produced from the trunk and large branches, and not pendant from the smaller ones, as in other trees. It is considered very nourishing, and possesses great sweetness of taste. It is used both as an article of food and medicine; and when dried is considered more wholesome and easier of digestion than when fresh.

It is said in *Matthew*, xxi. 19, that Jesus coming from Bethany early in the morning, and finding himself to be hungry, drew near to a Fig-tree, with a design of gathering some fruit, and seeing nothing upon it, he said—"Let no fruit grow on thee henceforward for ever," and immedi-

ately the Fig-tree withered to the root. The generality both of ancient and modern commentators have looked upon this action of our Saviour as a figure of the rejection of the Jews; but as our little work has nothing whatever to do with religious controversy, we notice this instance only with a view of concluding this article with the following beautiful hymn by an eminent divine:—

THE BARREN FIG-TREE.

One awful word, which Jesus spoke
Against the tree that bore no fruit,
More piercing than the lightning's stroke,
Blasted and dried it to the root.

Too many, who the Gospel hear,
When Satan blinds and sin deceives,
We to this Fig-tree may compare—
They yield no fruit, but only leaves.

O Lord, unite our hearts in prayer!
On each of us thy Spirit send;
That we the fruits of grace may bear,
And find acceptance in the end!

But could a tree the Lord offend,
To make him show his anger thus?
He surely had a further end—
To be a warning word to us.

The Fig-tree by its leaves was known;
But having not a fig to show,
It brought a heavy sentence down,
"Let none hereafter on thee grow."

FIR TREE.

FIR-TREE.

Pinus Abies.—Plate 12.

My servants shall bring them from Lebanon unto the sea: and I will convey them by sea in floats unto the place that thou shalt appoint me, and will cause them to be discharged there, and thou shalt receive them; and thou shalt accomplish my desire in giving food for my household. So Hiram gave Solomon cedar-trees and *fir-trees*, according to all his desire.—*I Kings*, v. 9, 10.

FIR is an evergreen which grows to a very great height, not only on the rocks and cliffs of the highest parts of the mountains of Palestine and Arabia, but also on hills of moderate elevation in the colder regions of Europe; it abounds with a gum called resin, and the fruit resembles that of the pine-tree, but is not good for food. The

wood of the Fir-tree was formerly used for musical instruments, buildings, and furniture of houses, and for materials in ship-building, &c.

The timber of the Scotch Fir is used for various architectural purposes, and also for ship-building; it produces a variety of useful substances, among which turpentine, pitch, and tar, may be mentioned as of great value. It is a fast-growing tree; the green boughs are food for deer in winter, and they save much hay if given to sheep in snowy weather; the boughs are also of great value for fire-wood and fences. One of the most important uses of this tree is to nurse and shelter young plantations, in which it is desired to rear more valuable timber; in such case the

Scotch Fir must be gradually pulled up, so as to furnish the trees, of which the plantation is finally to consist, with the proper supply of sun and air.

FLAX.

Linum Usitatissimum.—Plate 9.

And the *flax* seed and the barley were smitten; for the barley was in the ear, and the *flax* was bolled.—*Exodus*, ix. 31.

A bruised reed shall he not break, and the smoking *flax* shall he not quench; he shall bring forth judgements unto truth.—*Isaiah*, xliii. 3.

Flax is a well-known plant, of which linen is made; this valuable annual is said to come, originally, from those parts of Egypt which are exposed to the inundations of the Nile; it grows wild in the South of

England, and is cultivated in large quantities: the flowers, which are in full perfection in July, grow on the tops of the branches, on long slender pedicles, and are of a blue colour; they consist of five petals, and when expanded, are in the shape of a clove July flower; the leaves are about the breadth of a straw, and nearly two inches long; they are alternately placed on the stalk, and are smooth and soft.

Flax is a plant with a slender hollow stem, usually about two feet high; the bark consists of fibres or threads, which being dressed and worked in a proper manner, affords us that valuable commodity, linen cloth, which we now make to very great perfection; and the Irish in

particular have, of late years, improved the manufacture to so great a degree of excellence, that they export immense quantities of it to England, and to the British Colonies in America.

Fine linen is constantly alluded to in Scripture; it was always the habiliments of the Egyptian priesthood, and formed the principal dress of the inhabitants. We also find, that on opening the cases containing the ancient mummies of Egypt, that the bodies are swathed in linen bandages made from Egyptian Flax.

Flax not only yields these advantages, but it also furnishes line or lin-seed, and all the several preparations of it, as linseed oil, oil-cake, &c.

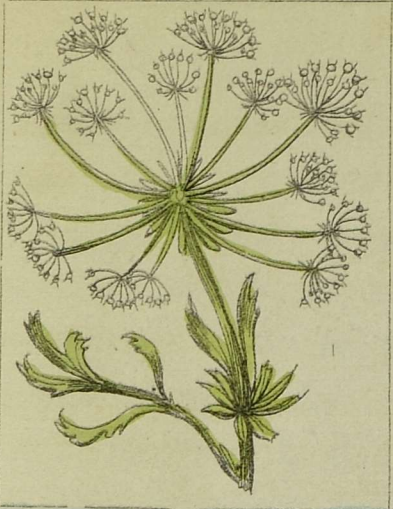
FRANKINCENSE.

Thus.—Plate 13.

WHO is this that cometh out of the wilderness like pillars of smoke, perfumed with myrrh and *frankincense*, with all powders of the merchant?—*Song of Sol.* iii. 6.

THE oderiferous gum or resin which we call Frankincense, anciently burnt in temples as a perfume, distils spontaneously from the tree which produces it during the heats of summer; but notwithstanding the great use of this gum, both in ancient religion and modern medicine, the tree that yields, and even the place where it grows, is but little known. The most common opinion has always been, that it

Frankincense. Garlick.



Grapes. Grasses.

was the product of Arabia Felix, and found near the city of Sabe, whence its epithet Sabæum; and yet the name Olibanum, which it also bears, seems to intimate that there are some of these thuriferous, or incense-bearing trees, near Mount Libanus in Syria; nor is it to be questioned but there are others in the Indies. We are likewise at a loss as to the form of the tree producing incense, as Mr. Ray himself confesses. Theophrastus says, it is about five cubits high, full of branches, with leaves resembling those of the pear-tree, and a smooth back like that of the bay-tree; but others affirm it to be like the mastic-tree, bearing similar fruit and a reddish coloured leaf; and others assert that both its leaves and bark resemble

those of the bay-tree. Frankincense is brought to us from Turkey and the East Indies, formed into small drops of a pale yellow colour, somewhat hard and pellucid, of a bitterish resinous taste, and fragrant smell; sometimes we have it in a mass, but that in drops is preferable.

People of all ages burnt incense in the temples in which they performed their religious ceremonies; and many of the primitive Christians were put to death, because they would not offer incense to the Pagan idols.

The Roman church still retains the use of incense in the daily service of the altar, and in many of their other religious ceremonies, particularly at solemn funerals, bestowing it on persons they would honour

as proselytes, &c., and sometimes also on the people.

GARLICK.

Allium Ascalonicum.—Plate 13.

We remember the fish which we did eat in Egypt freely, the cucumbers, and the melons, and the leeks, and the onions, and the *garlick.—Numbers*, xi. 5.

Garlick is a plant having flowers of the lily kind, which flowers are collected into round heads, and the roots are covered with a kind of skin. In building the great pyramids of Egypt, according to Herodotus, one hundred thousand workmen were employed for thirty years, without intermission, in preparing the materials or

constructing the work; and he adds, that one thousand six hundred talents of silver were expended in radishes, leeks, onions, and Garlick, a sum equal, according to different calculations to about £400,000, or at least £289,379 sterling. Garlick, of all our plants, possesses the greatest strength, affords more nourishment, and supplies most spirits to those who eat little flesh; it seems to have been a considerable article of food in ancient times. It is much used by the lower orders in Spain, as well as in several parts of the European continent.

GOPHER-WOOD TREE.

GOPHER-WOOD.

Cupressus sempervirens.—Plate 14.

MAKE thee an ark of *gopher-wood*, rooms shalt thou make in the ark, and shalt pitch it within and without with pitch.—*Genesis*, vi. 14.

BISHOP WILSON observes that great quantities of this wood grew about Babylon, near which place the ark was built. The wood is incorruptible, so that the remainder of the ark might have been seen in Josephus' time, as he and others say it was. It is thought to be a kind of cedar, or the cypress-tree, which, as it is a lasting and durable wood, makes the ark a type of the Church, in the standing nature of it, as

always existing in the bosom of everlasting love, and ever will rest there to the days of eternity.

The Jewish rabbins translate this wood as the *cedar*, of which there has been such great abundance, that Herodotus states the kings of Egypt and Syria built large fleets of cedar-wood; from the text, however, which appears at the head of this subject, as well as from other parts of Scripture in which this wood is mentioned, we doubt the correctness of the translation.

GOURD.

GOURD.

Cucumis Prophetarum.—Plate 15.

And the Lord God prepared a *gourd*, and made it to come over Jonah, that it might be a shadow over his head, to deliver him from his grief. So Jonah was exceeding glad of the *gourd.—Jonah*, iv. 6.

What kind of Gourd is here intended, the Scriptures do not clearly point out; there can be no doubt, however, but that it afforded a delightful shade, and one that proved very refreshing to Jonah: some think it to be the American plant or tree, called the Ricinus, which grows with great rapidity, is full of branches, exceedingly large leaves, and very shady. This plant

is something like the lily, and the leaves are smooth, scattered here and there, and spotted with black. Discorides says, that there is a sort of it which grows large like a tree, and as high as a fig-tree; the leaves of it are like those of the plum-tree, though much broader, smoother, and blacker, and that the branches and trunk are hollow like a reed. Some think that Jonah alludes to this last species. The wild Gourd, in Hebrew *Pekaah*, is a plant which produces leaves and branches much like garden cucumbers, that creep upon the earth, and are divided into several branches; its fruit is of the size and figure of an orange, of a light white substance, if the rind be pared off, and so bitter to the taste, that it has been called the gall of the earth:

mention is made of this plant in the Second book of Kings, iv. 39.

"And one went into the field to gather herbs, and found a wild vine, and gathered thereof wild Gourds his lap full, and came and shred them into the pot of pottage, for they knew them not. So they poured out for the men to eat. And it came to pass as they were eating of the pottage, that they cried out and said, O thou man of God, there is death in the pot. And they could not eat thereof."

GRAPES.

Uva.—Plate 13.

And they came unto the brook of Eshcol, and cut down from thence a branch with one cluster of *grapes*, and they bare it between two upon a staff; and they brought of the pomegranates, and of the figs. The place was called the brook Eshcol, because of the cluster of *grapes* which the children of Israel cut down from thence.—*Numb.* xiii. 23, 24.

This brook of Eschol was near to Hebron, and was in a valley: some suppose there was a vineyard near this brook, or at least a large vine; and some historians say, that there are vines as large as two men can grasp, and the single Grapes as large as hens' eggs, and the cluster two cubits long; this cluster of Grapes, as it was the

fruit of the land of promise, may be considered as typical.

Travellers assure us, that in the valley of Eschol there were bunches of Grapes to be found still, of ten and twelve pounds weight. Moses commanded, that when the Israelites gathered their Grapes, they should not be careful to pick up those which fell, nor be so exact as to leave none upon the vines; what fell and were left behind, he ordered should be for the poor.

"When thou comest into thy neighbour's vineyard, then thou mayest eat Grapes thy fill at thine own pleasure, but thou shalt not put any in thy vessel." *Deut.* xxiii. 24.

The 21st verse of the xxiv. chap. has the following prohibition against gleaning of Grapes:

"When thou gatherest the Grapes of thy vineyard, thou shalt not glean it afterwards: it shall be for the fatherless and for the widow."

The Jewish vineyards were generally on the north side of a hill. By comparing Matthew xxi. 33, with Isaiah v. and Psalm lxxx. we find that the ground was carefully prepared, the stones picked up, and a wall or hedge made to enclose it.

The wine was kept in skins, or leather bottles, made of the entire skin of a kid or goat, or of pieces of leather sown together, and the seams covered with pitch; water and wine are carried in this manner at the present day in eastern countries.—Hence the expression of our Lord, that no man will put new wine into old bottles.

The various species of vines are almost infinite, and the manner of their culture is different in different countries; the plant itself is naturally weak, but nature has furnished it with small tendrils, which it clasps round bodies that occur in its way, and supports itself by their assistance. In France it is raised on a single prop; but in some countries it is customary to support it by a strong reed pole or wooden forks. It is common in Greece and Italy (as we have already noticed under the article of Elm) to train up their vines close to elm trees, along the branches of which they extend themselves unrestrained, and gradually ascend to the top; this was an ancient practice in Italy, as appears from many passages in the classics, particularly

Virgil, who describes it in the following lines:

> "The next precaution of his rural cares,
> A range of reeds and forked props prepares,
> On these the vines their clasping progress form,
> And brave the rigours of each rising storm;
> Ascend the hospitable Elm, and spread
> Their swelling clusters o'er its verdant head."

In Asia, where they have several species of very large Grapes, they dispose their vines on raised works of lattice, which form so many arbours, under which the natives enjoy a refreshing shade; but none seem to be better acquainted with the management of a vintage, than they are in several provinces of France, especially in Champaign and Burgundy.

As the Grape advances to maturity, the

quantity of sugar in it increases, while that of the malic acid diminishes; when thoroughly ripe, the Grape is one of the most agreeable fruits, it is cooling, antiseptic and nutritious; and in inflammatory diseases, where acids are necessary, Grapes form an excellent article of diet.

Raisins are Grapes which have been carefully dried; by this means not only the water they contained is dissipated, but the quantity of acid seems to be diminished, they become more saccharine, mucilagenous, and laxative than the recent Grape, but are less cooling.

GRASS.

Desha. (*Hebrew.*)—*Plate* 13.

He causeth the *grass* to grow for the cattle, and herb for the service of man; that he may bring forth food out of the earth.—*Psalm* civ. 14.

Grass is a well known vegetable, upon which flocks, herds, cattle, &c. feed, and which decks our meadows, and refreshes our sight with its green colour, which is very grateful to the eye, for who could have borne the dazzling lustre of white, or the brilliant glare of red? If the universal colour had been sable, how gloomy and dismal would have been the face of nature! but the ever-bountiful Creator has

neither injured our sight with colours which our eyes could not support, nor pained it by obscure gloom; on the contrary, he has clothed the fields in colours that strengthen the sight, and please by their diversity, for such is the difference of shade, that scarcely two blades of Grass can be found of exactly the same shade of green. By this arrangement of the vegetable kingdom, God has not provided less for our pleasure than for our advantage, the proofs of which every where present themselves to our observation: and may we never pass them with indifference or disregard, but may our reason ever be employed in tracing out the perfection of wisdom, and the consummation of goodness in all the works of nature. Men are

in many parts of the sacred Scriptures compared to Grass, they being quickly withered by affliction and sorrow, or cut down by calamity and death, vide II Kings, xix. 26. Isaiah, lx. 6, 7. Psalms xxxvii. 2, cii. 4, 11, ciii. 15.

HEMLOCK.

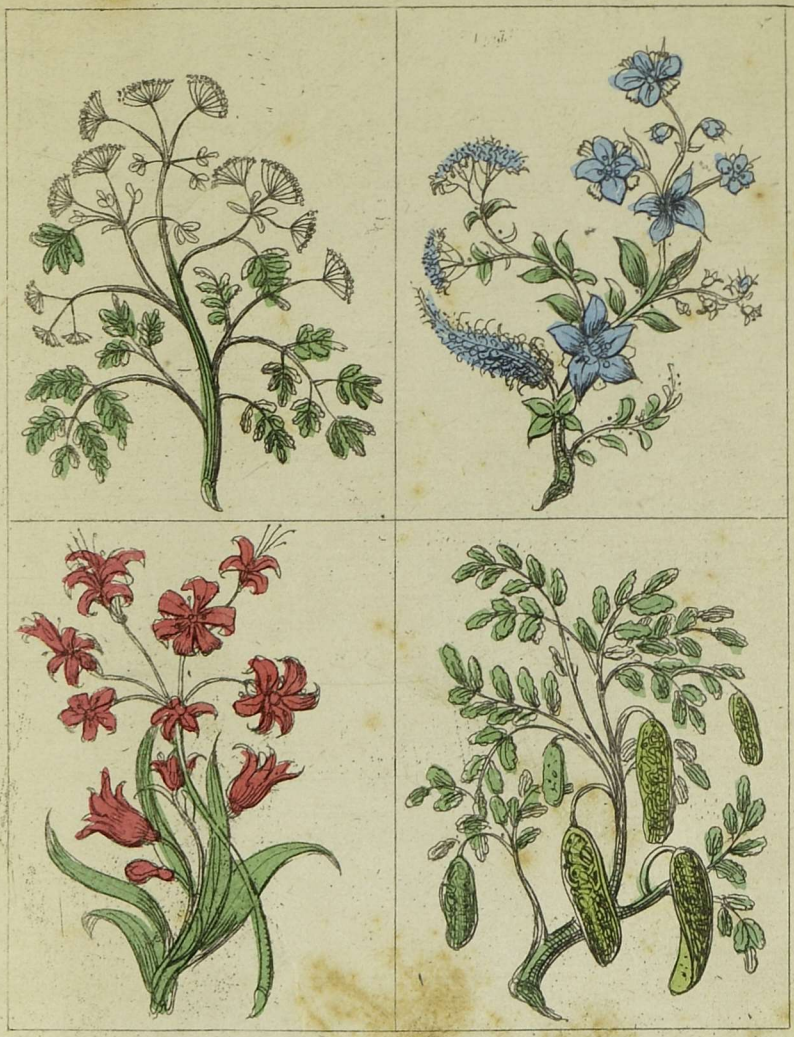
Hyoscyamus reticulatus.—Plate 17.

THEY have spoken words, swearing falsely in making a covenant: thus judgment springeth up as *hemlock* in the furrows of the field.—*Hosea,* x. 4.

Shall horses run upon the rock? will one plough there with oxen? for ye have turned judgment into gall, and the fruit of righteousness into *hemlock.—Amos,* vi. 12.

HEMLOCK is a large biennial umbelliferous plant, which grows very commonly about

Hemlock. Hyssop.



Lily Locust plant.

the sides of fields, under hedges, and in moist shady places. As it may be easily confounded with other plants of the same natural order, which are either more virulent or less active, we shall give a full description of its botanical character: the root is white and long, the thickness of a finger; contains, when it is young, a milky juice, and resembles both in size and form the carrot; in spring it is very poisonous, in harvest less so; the stalk is often three, four, and six feet high, hollow, smooth, not beset with hairs, but marked with red or brown spots. The leaves are large, and have long and thick footstalks, which at the lower end assume the form of a groove, and surround the stem; from each side of the footstalk, others arise, and from these

a still smaller order, on which there are dark green shining lancet-shaped notched leafits; the umbels are terminal and compound;—the flowers consist of five white heart-shaped leaves, the seeds are flat on the one side, and hemispherical on the other, with five serrated ribs: this last circumstance, with the spots on the stalks, and the peculiar, very nauseous smell of the plant, serve to distinguish it from all other plants. It is a very poisonous herb, which causes delirium and strong convulsions: hence, in the meaning of the texts the effect of ungodliness upon the heart is likened to this noxious plant among the herbs of the field.

HYSSOP.

Hyssopus Officinalis.—Plate 17.

And ye shall take a bunch of *hyssop*, and dip it in the blood that is in the bason, and strike the lintel and the two side posts with the blood that is in the bason; and none of you shall go out at the door of his house until the morning.—*Exod.* xii. 22.

Hyssop is an herb very generally known, and in Hebrew called *Esob;* it was commonly made use of in purification, instead of a sprinkler: thus God commanded the Hebrews when they came out of Egypt, to take a bunch of Hyssop, to dip it in the blood of the paschal Lamb, and sprinkle the lintel and two side posts with it, as is mentioned in the foregoing text; some-

times they added a little wool to it of a scarlet colour; so in the purification of lepers, they dipped a bunch of Hyssop, the branches of the cedar tree, and red wool, in water, mingled with the blood of a bird, and with it sprinkled the leper.—Levit. xiv. 4.

David alludes to these ceremonial purifications, in Psalm li. 17, "Purge me with Hyssop, and I shall be clean,"—that is, 'As lepers and other unclean persons are by this appointment purified by the use of Hyssop and other things, so do thou cleanse me, a most leprous and polluted creature, by thy grace, and by the virtue of the blood of Christ,' which is represented, and signified by those ceremonial usages.

Hyssop is a shrub which shoots out abundance of suckers from one root only; it is as hard as any large wood, and grows about a foot and a half high; at particular distances, on both sides of its stock, it pushes out longish leaves, which are hard, odoriferous, warm, and a little bitter to the taste; the blossom of it appears at the top of the stem of an azure colour, and like an ear of corn. There are two sorts of it, the garden and the mountain Hyssop. It is very probable that Hyssop grows to a very great height in Judea, since it is said in the Gospel, that the soldiers having filled a sponge with vinegar, they put it upon a stick of Hyssop, and presented it to our Saviour's mouth, who was then expiring upon the cross, John, xix. 29.—It

is, however, by some commentators, believed to be a species of moss very common on the walls of Jerusalem, or more probably, the little plant still called in Palestine, Hyssopo.

JUNIPER-TREE.

Rothem. (*Hebrew.*)—*Plate* 16.

But he himself went a day's journey into the wilderness, and came and sat down under a *juniper-tree;* and he requested for himself that he might die; and said, it is enough; now, O Lord, take away my life; for I am not better than my fathers. And as he lay and slept under a *juniper-tree*, behold, then an angel touched him and said unto him, arise and eat.—*I Kings*, xix. 4, 5.

Sharp arrows of the mighty, with coals of *juniper*. *Psal.* cxx. 4.

That is, all the reward thou shalt meet with, shall be swift vengeance from the

JUNIPER TREE.

Almighty—this is metaphorically represented by sharp arrows, and burning coals of juniper, the wood of which tree is supposed to burn more intensely than that of any other.

The Juniper is an evergreen shrub, growing on heaths and hilly grounds, in all parts of Europe: the stem rises sometimes to the height of a man, but is slender, and has many branches, with rough reddish bark: the wood is firm and of a brown colour, especially when it is dry, with an agreeable resinous smell; the leaves are very sharp, exceedingly narrow, and seldom above an inch in length, but often shorter; they are stiff, always green, and several of them grow together with some distance between each. It flowers

in May. The berries used in this country are chiefly brought from Holland and Italy; the Italian berries are in general reckoned the best.

Juniper berries have a strong but not disagreeable smell, and a warm, pungent, sweet taste, which, if they are long chewed or much bruised, is followed by a bitterish one; their predominant constituents are essential oil, and a sweet mucilagenous matter.

The essential oil may be separated by distillation; its properties are in a high degree imparted to ardent spirits: the peculiar flavour and well known diuretic effects of what is commonly called Hollands gin, are owing to the oil of Juniper being incorporated with the same.—In warm

countries, a resin exudes from the Juniper tree, which is called sandarac, and is often mixed with mastic.

The name of this tree in Hebrew is *Rothem;* in the Arabic, *Ratam;* and in the Spanish, *Retama:* it is therefore supposed by many commentators to have been in all probability first introduced into Spain by the Moors, and generally signifies a species of broom plant.

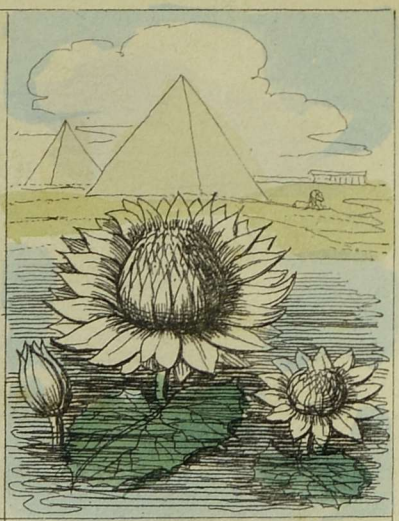
The serious evils which have resulted from the infusion of the berries of this plant are well described by the psalmist in the words of the text.

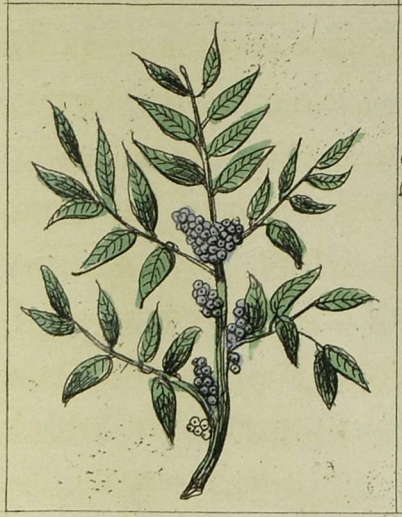
LENTILES.

Cicer Lens.—Plate 18.

THEN Jacob gave Esau bread and pottage of *lentiles*; and he did eat and drink, and rose up and went his way: thus Esau despised his birth-right.—*Genesis*, xxv. 34.

LENTILES are a particular species of pulse which grow in great abundance in Egypt, the inhabitants of which place make use of them as food, and dress them in the same manner as beans, by which they readily dissolve into a mass of a somewhat reddish colour, and are generally supposed to have formed the same red pottage, for which Esau exchanged his birth-right with his brother Jacob.





Mastick Melons (Water)

LILY.

Lilium Convallium.—Plate 17.

And why take ye thought for raiment? Consider the *lilies* of the field, how they grow: they toil not, neither do they spin: and yet I say unto you, that even Solomon in all his glory was not arrayed like one of these.—*Matt.* vi. 28, 29.

Lily, the beautiful fragrant and medicinal flower so called, as mentioned in the above text, is compared to Christ, who is refreshing and beautiful to all true believers, vide Song of Sol. ii. 1.—his church and people, Song of Sol. ii. 2, 16.

M. De Vaillant gives the following account of a most beautiful and magnificent lily, he saw growing in the interior of Africa.

"It was a lily seven feet high, which waved majestically on its flexible stem, and literally impregnated the passing gales with its exquisite fragrance.—The stem was six inches in circumference, and furnished with flowers that were three feet long, and three feet and a half wide; on the upper part were displayed in beautiful order, thirty-nine corollas or flowers, of which eighteen were in full bloom, six half-bloom, and fifteen just ready to open; the greatest number formed a calyx, one third larger than those of European lilies; their petals, of a charming flaxen grey on the outside, and as white within as unsullied snow, were finely bordered with crimson, and set off by a pistil and stamen whose colours were equal to the finest carmine.—In short," says our author, "this plant, produced in solitude, and pure as the sun which had fostered it, had been respected by all the animals of the district, and seemed sufficiently defended by its own beauty."

Having caused this charming Lily to be cautiously dug up, M. Le Vaillant found that its bulb measured thirteen inches in

depth; and twenty-seven in circumference; in shape and colour it nearly resembled the bulb of a tulip; but instead of being composed of several coats, it was pulpy, full, and weighty; having been properly arranged in a basket, it was carried to our author's tent, where he enjoyed the pleasure of seeing all the flowers open in regular succession, and of inhaling its reviving perfume, till its odour was at length exhausted, and its strength completely decayed.

The Lily of the field sometimes appears with unrivalled magnificence; this remark is justified by the following statement of Mr. Salt in his voyage to Abyssinia.

"At a few miles from Adowa, we discovered a new and beautiful species of Amarillis, which bore from ten

to twelve spikes of bloom on each stem, as large as those of the *Bella-donna*, springing from one common receptacle: the general colour of the smaller was white, and every petal was marked with a streak of bright purple down the middle; the flower was sweet scented, and its smell, though much more powerful, resembled that of the lily of the valley: this superb plant excited the admiration of the whole party, and it brought immediately to my recollection the beautiful comparison used on a particular occasion by our Saviour—'I say unto you, that Solomon in all his glory, was not arrayed like one of these.' "

The fields of the Levant are every where abundant in the golden flowers of the *Amaryllis Lutea*.—The Lily is supposed to have been originally brought from Persia, and with eastern poets it is alluded to as the emblem of purity. Mrs. Tighe, the lamented authoress of *Psyche*, has, among

numerous other interesting poems, the following appropriate lines to the root of this beautiful flower:

"How withered, perished, seems the form
Of yon obscure unsightly root!
Yet from the blight of wintry storm,
It hides secure the precious fruit!

The careless eye can find no grace,
No beauty, in the scaly folds,
Nor sees within the dark embrace
What latent loveliness it holds!

Yet in that bulb, those sapless scales,
The Lily wraps her silver vest,
Till vernal suns, and vernal gales,
Shall kiss once more her fragrant breast.

Yes, lovely virgin, queen of spring!
Thou from thy dark and lovely bed
Shalt burst thy green sheath's silken string,
Unveil thy charms, and perfume shed.

Unfold thy robes of purest white,
Unsullied from their darksome grave,
And the soft petal's silvery light,
In the mild breeze unfettered wave."

LOCUSTS.

Ceratonia dulcis.—Plate 17.

And the same John had his raiment of camels' hair, and a leathern girdle about his loins; and his meat was *locusts* and wild honey.—*Matt.* iii. 4.

It has not been till lately that any of our travellers into Palestine have told what was meant by Locusts in the preceding passage; Dr. Clarke first related, that a tree grows there which is called the Locust tree, and produces an eatable fruit, but the fact was well known to many who had been

in the Mediterranean. This tree grew in several of the countries which border that sea; it has lately been found in much greater abundance in some parts of the East-Indies, whence it has now become an article of exportation; many thousands of its pods were annually warehoused in the warehouses of the East-India docks, and either because the fruit is richer in the more southern climates, or for some other reason, great quantities have been shipped for Venice and Trieste, where, as it was believed, they were intended to be distilled into a liquor, supposed to be an antidote to the plague, or at least useful in curing it. The pods are about twenty inches long, and from half to three quarters of an inch diameter; we call them pods for

want of a term which would more accurately describe them; but they are not flat, neither have they that sort of hinge on one side, and slight fastening on the other, which plainly show how the shells of peas and beans are to be opened; on the contrary, these are round, but there are two opposite lines along them, where the colour alone would induce any one to suppose the skin to be, as it is, thinner than elsewhere.

Having this fruit before us only in its dry state, we can describe it in no other; but as it is at present, a knife could scarcely be made to penetrate the thicker parts, and does not very easily make its way into the thinner: the fruit, which lies in little cells within, is a pulp or paste somewhat

like that of tamarinds, but smoother and not so sweet; there are pipes in it nearly as hard, and about half as large, as those of a tamarind, containing a kernel in each.

Such was a part of the food of John the Baptist, during his abode in the wilderness. It should be added, that in the stems of this Locust tree, the wild bees still deposit their honey.

This explanation of the sense in which St. Matthew uses the word Locusts, is more worthy of notice, as it has escaped Whitby, and several, if not all, of the commentators; nor do any of the lexicons remedy the deficiency, by an additional term synonymous for the Greek word.

LOTUS.

Lotus Nymphæ.—Plate 18.

I WILL be as the dew unto Israel, he shall grow as the *lily*, and cast forth his roots as Lebanon.—*Hosea*, xiv. 5.

THOUGH the word Lotus does not appear in our translation of the Scriptures, yet it is generally supposed that in the above verse it should with much more strictness and propriety have been rendered Lotus, the leaves and flowers of which are peculiarly beautiful.

The Lotus is a kind of water lily peculiar to the land of Egypt; it has large white and odoriferous flowers, and Hero-

dotus describes it as growing on the surface of the water, and all the adjacent fields when overflowed. During the great heats of summer, the Egyptians eat the bulbous root, the stalk, and the upper parts of the plant, which are very refreshing from their cool and watery moistness: when dried and cut down, the seed, which resembles that of the poppy, is pulverised and made into a kind of bread; the root, which is round, and about the size of an apple, is also boiled and eaten by them, being of an agreeable flavour, somewhat resembling the potatoe in taste.

It is also the opinion of some commentators, that in the prophecy of Isaiah, xix. 6, predicting the desolation of Egypt in the following words: "And they shall turn

the rivers far away; and the brooks of defence shall be emptied and dried up; the reeds and flags shall wither" the word now rendered "flags" should more consistently have been translated Lotus.

MALLOWS.

Halimus.—Plate 19.

WHO eat up *mallows* by the bushes, and juniper-roots for their meat.—*Job*, xxx. 4.

MALLOWS is a perennial plant common in Palestine and Arabia, where it grows in the most dry and desert places; great quantities of this vegetable are sold in Aleppo and Bagdad, where it is much used for food by the poorer classes; it is also a

plant very common in Britain, growing under hedges, near footpaths, and among rubbish, and flowers from May to August: the whole plant abounds with mucilage; the leaves were formerly of some esteem in food, for certain complaints; but their principal use now is in cataplasms and fomentations: the flowers when nicely examined, are very beautiful, and the fruit contributes much to the amusement of poor children in the country.

MANDRAKE.

Atropa Mandragora.—Plate 19.

And Reuben went in the days of wheat harvest, and found *mandrakes* in the field, and brought them unto his mother Leah.—*Genesis*, xxx. 14.

Mandrake is a very curious plant, distinguished by botanical writers into male and female; the male Mandrake has a very large, long, and thick root, it is largest at the top or head, and from thence gradually growing smaller; sometimes it is single, and undivided to the bottom, but more frequently it is divided into two, and sometimes into three or more parts; when only parted into two, many whimsically suppose

Millet. Mint.

that it somewhat resembles the human figure:—From this root arise a number of very long leaves broadest in the middle, narrow towards the base, and obtusely pointed at the end; they are a foot or more in length, and about five inches in breadth; are of a dusky and disagreeable green colour, and of a very fœtid smell.

The female Mandrake perfectly resembles the other in its manner of growth; but the leaves are longer and narrower, and of a darker colour, as are also the seeds and roots.

Some authors have spoken very largely and idly of the supposed virtues of this plant; but their opinions are now very generally exploded.

It is reported, that in the province of

Pekin in China, there is a kind of Mandrake so valuable, that a pound of the root is worth thrice its weight in silver; for, they say, it so wonderfully restores the sinking spirits of dying persons, that there has been in many instances time obtained for the use of other means, and thereby recovering them to life and health.

In Samaria, and the vale of Nazareth in Galilee, where the Mandrake grows in great abundance, it is still noted for its genial and exhilarating virtues; and among both the Greek and oriental nations, it has always been held in the highest estimation.

MASTICK.

Pistacia Lentiscus.—Plate 18.

Now then tell me, under what tree sawest thou them? who answered, under a *mastick* tree.—*Susannah*, 54.

THE lintisk, or Mastick tree, is a native of the Island of Scio in Greece, and was supposed not to be known in Syria, Arabia, or the Holy land; so that the first Elder, in accusing Susannah, mentions the name of a tree which was not known in Babylon.

This tree grows to the height of twelve or fourteen feet, dividing into numerous branches, on each side of which the leaves grow alternately, are spear-shaped, and about an inch and a half long, of a bright

green colour, and have a strong odour of turpentine: the flowers grow in small bunches at the end of each branch, and the fruit forms into clusters, like small bunches of grapes, and are white and smaller in size.

Wherever incisions are made in the bark of the tree, a strong liquid gum distils from the scar, in the form and shape of large tears, that gradually harden in the sun, and then fall to the ground; these tears, when gathered and imported into this country, are known by the name of Mastick-gum. The season for this process commences at the beginning of August, and lasts until the end of September.

With the Turkish women, it is customary to put a little of this gum into their

mouth, occasionally, under a notion that it renders their breath agreeable, and tends to whiten their teeth, and strengthen their gums.—It is often used by dentists in this country, to fill up hollow or decayed teeth.

MELON.

Cucumis sativa.—Plate 18.

We remember the fish which we did eat in Egypt freely, the cucumbers, and *the melons*, and the leeks, and the onions, and the garlick.—*Numbers*, xi. 5.

This well-known fruit grows wild in several parts of the east, and is much esteemed in Egypt by the lower classes, especially during the hot months; it grows there in

great perfection, and is considered as one of the most delicious refreshments during the violence of the summer heats in that burning climate. The Melon is produced from a creeping herbaceous plant, a species of the cucumber family, which has leaves with rounded angles; and is cultivated in this country by means of artificial heat.

The water Melon (*Cucurbita citrullus*) is cultivated on the banks of the Nile, as well as all through Palestine, Judea, and Syria: the pulp of some is reddish in that part nearest the centre of the fruit, and the seeds are of a dark coffee colour:—those melons which have a white pulp, are of a very agreeable taste, though not so much esteemed as the other; each sort, however, amply supply the place of drink,

as they dissolve in the mouth, quench the thirst, and are of a cooling quality.

The water Melon is eaten in the greatest abundance during the sultry months by every class of Egyptians, both rich and poor; the juice is most peculiarly agreeable and cooling, and, with its rich and delicious fruit, at once answers the purposes of meat and drink: this therefore at once explains the foregoing text, expressive of the regrets of the children of Israel for the loss of this delicious fruit, whose refreshing liquor had so constantly relieved the weariness of their servitude by quenching their thirst, and which, now deprived of, in the midst of the dry and scorching desert, they exclaimed with tears of bitterness, that there was no food but manna

before their eyes, and that "their soul was dried away."

MILLET.

Millium Turcicum.—Plate 19.

TAKE thou also unto thee wheat, and barley, and beans, and lentiles, and *millet*, and fitches, and put them into one vessel, and make thee bread thereof.—*Ezekiel*, iv. 9.

MILLET is an esculent grain, chiefly used among the inhabitants of Arabia Felix, Syria, and Palestine, where it grows in great abundance, and when made into bread with oil, butter, and camels' milk, it forms the common food of the poorer classes in those countries.—It also grows naturally in India, from whence we are

furnished with it annually; it is also cultivated in many parts of Europe, and the Italians make it into loaves and cakes, which, when eaten hot, are much esteemed for their sweetness.

Millet is chiefly used among us in puddings, and also in medicine; the seeds are said to be of extraordinary service in diseases of the lungs.

A learned commentator informs us that in times of former scarcity, it was usual to mix a large quantity of coarse grain with a little of the better sort, (such as millet) in order to make provisions last the longer; the prophet was commanded to do this, to signify the great scarcity the inhabitants of Jerusalem should suffer during the siege.

MINT.

Mentha viridis.—Plate 19.

Woe unto you, Scribes and Pharisees, hypocrites! for ye pay tithe of *mint*, and anise, and cummin, and have omitted the weightier matters of the law, judgment, mercy, and faith: these ought ye to have done, and not to leave the other undone.—*Matthew*, xxiii. 23.

Mint is a garden herb, common to the Holy land, and well known in this country; its flower is a single leaf, and its seeds are at the bottom of the cup: it generally yields three crops a year; and is very useful for pains in the head and stomach, and for various other purposes. The water, oil, and decoction of mint, are well known. Tournefert mentions twenty-three

different kinds of Mint. Its smell is powerful, and by many people thought fragrant, and the plant is frequently cultivated in gardens.

MULBERRY-TREES.

Morus nigra.—Plate 20.

And when David enquired of the Lord, he said, thou shalt not go up; but fetch a compass behind them, and come upon them over against the *mulberry-trees.—II Samuel,* v. 23.

Mulberry-trees are plentiful in Syria and Palestine; the fruit, when unripe, is of a very binding quality; but when ripe, is cooling, delicious, and good for quenching thirst: the syrup made of it is also very pleasant. The Romans preferred

Mulberry apples to every kind of foreign fruits; at present, the leaves of this tree are much used to feed silk-worms, and the roots are used in medicine.

There are five different kinds of Mulberry-trees; the bark of the paper Mulberry, with palmate leaves and bristly fruit, is used for paper by the Japanese,—whence its name: the leaves, however, of both these and the Tartarian Mulberry are used as food for the silk worms, the former in France, the latter in China. A beautiful vegetable silk may be obtained from the bark and young branches of this tree while it is in the sap, by beating and steeping; and it is said, that the women of Louisiana, obtain a similar material from the shoots which arise from the stock, with which fringes,

Myrrh Tree. 20 Mustard Tree.

Mulberry. Myrtle.

and other ornamental drapery are made; and the finest cloth among the inhabitants of Otaheite, and the South-sea islands, is made from the bark of this tree.

The stain of the Mulberry is difficult of removal; but may be extracted by verjuice or the acid of lemons.

MUSTARD.

Sinapis nigra.—Plate 20.

THE kingdom of Heaven is like to a grain of *mustard-seed*, which a man took, and sowed in his field; which indeed is the least of all seeds; but when it is grown, it is the greatest among herbs, and becometh a tree, so that the birds of the air come and lodge in the branches thereof.—*Matthew*, xiii. 31, 32.

THE phrase in the above text, of the Mustard seed being "the least of all seeds,"

is a mode of expression frequent in oriental countries, and signifies "one of the least." "The globe of this Earth," says the Rabbin, "is but a grain of Mustard seed, when compared with the expanse of Heaven."

The Mustard-tree grows abundantly in Palestine, and is a well-known garden plant in these countries; its seeds are very numerous and globose; the leaves, like those of radishes, are armed above and below with stiff and prickly hairs; the flowers are small, yellow, and in the form of a cross; and are succeeded by hairy pods, that terminate in an empty point, which contain four or five whitish or reddish seeds: it grows wild in fields among corn, and is also cultivated in gardens: it flowers in May and June; and the seeds,

which are ripe in July and August, are very useful for various purposes.

Our Saviour, in the foregoing text, compares the kingdom of Heaven to a grain of Mustard-seed, which, though the least of all grains, being sown upon good land, becomes so great a tree, that the birds of the air come and lodge in the branches thereof.—This would indeed seem almost incredible, were we not assured that, in Palestine and Syria, the Mustard-tree, as well as various other trees, plants, and shrubs, attains a much greater height than in these countries: many travellers have spoken of their size, and the Talmud notices one whose branches spread out on all sides quite enough to cover a tent; and another is also spoken of in Jewish history,

of such large dimensions, that it could be climbed like a fig-tree.

MYRRH.

Myrrha.—Plate 20.

And when they were come into the house, they saw the young child with Mary his mother, and fell down, and worshipped him; and when they had opened their treasures, they presented unto him gifts, gold, and frankincense, and *myrrh.—Matt.* ii. 11.

Myrrh is a vegetable production of the resin kind, issuing by incision, and sometimes spontaneously, from the trunk and larger branches of a tree growing in Egypt, Arabia, and Abyssinia; the incisions are made thrice a year, and the Myrrh is sent to us in loose granules of various sizes,

from that of a pepper-corn to the bigness of a walnut; the generality of them, however, are from the size of a pea to a little more than a horse-bean: they are sometimes roundish, but often irregularly long and contorted.

The colour of Myrrh is a reddish brown, with more or less of an admixture of yellow, and in the purest pieces it is slightly transparent; its taste is bitter and acrid, with a peculiar aromatic flavour, but very nauseous; its smell, though strong, is not disagreeable; it is to be chosen in clear pieces, light, friable, and of a bitter taste.

The magi, who came from the East to worship our Saviour, as is mentioned in the foregoing text, made him a present of Myrrh. In the Gospel of St. Mark, xv. 23,

mention is made of wine mingled with Myrrh, which was offered to our Saviour at his passion, to deaden, it is supposed, the acuteness of his pain. It possesses the property of resisting putrefaction; hence, figuratively, it was a most appropriate offering.

MYRTLE.

Myrtus communis.—Plate 20.

I SAW by night, and beheld a man riding upon a red horse, and he stood among the *myrtle trees* that were in the bottom; and behind him were there red horses, speckled, and white. *Zechariah*, i. 8.

THIS elegant shrub was very common in Judæa and Palestine, as well as in almost all European countries.

It has a hard woody root, that sends forth a great number of small flexible branches furnished with leaves like those of box, but rather less and more pointed; they are soft to the touch, shining, smooth, of a beautiful green, and have a sweet smell: the flowers grow among the leaves, and consist of five white petals, disposed in the manner of a rose, and have a calyx cut into five segments.—Naturalists mention twelve different kinds of Myrtle.

In all ages of the world, the Myrtle has been held in veneration; and at the feast of Tabernacles, even at the present time, boughs of this plant are in much request among the Jews.

NETTLES.

Urtica Indiana.—Plate 21.

AMONG the bushes they brayed; under the *nettles* they were gathered together.—*Job*, xxx. 7.

And, lo, it was all grown over with thorns, and *nettles* had covered the face thereof.—*Proverbs*, xxiv, 31.

To determine exactly the species of plant here meant, is attended with some difficulty: Denon, in his travels through Egypt, says, "One of the greatest inconveniences of the vegetable thickets of Egypt, is, that it is difficult to remain in them, as nine-tenths of the trees and plants are armed with inexorable thorns, permitting only an unquiet enjoyment of the shadow which

Nettles.

Nuts.

Paper Reeds.

Pomegranate

is constantly desireable, from the precaution necessary to guard against them.

Calmet is of opinion that the original Hebrew word *Charul* in Job, rendered into Latin by *Urtica*, and again translated into English as *Nettles*, is erroneous, and ought more properly to be rendered as thorns, brambles, or briers; though the Hebrew word *Kemosh* in Proverbs, and again translated into the Vulgate as *urtica*, most probably in that instance means the Nettle.

The sting of the Nettle, when examined under the microscope, is a very curious object; it is a slender, tapering, sharp, and hollow substance, with a minute hole at the point, and a bag at the base. When the sting is pressed, it perforates the skin, and the same pressure forces up from the

bag, into the wound, a corrosive liquor, which forms there a blister, and excites a burning and painful inflammation.

NUTS.

Pistacia Vera.—Plate 21.

And their father Israel said unto them, if it must be so now, do this; take of the best fruits in the land in your vessels, and carry down the man a present, a little balm, and a little honey, spices and myrrh, *nuts* and almonds.—*Genesis*, xliii. 11.

Nuts, among botanists, denotes a pericardium of an extraordinary hardness, which retains a soft edible nucleus or kernel; of these we have divers kinds, as small nuts, filberts, chestnuts, walnuts, &c. the hazel-

nut is fit for gathering in the month of September.

There is a remarkable kind of nut tree growing in some parts of China, somewhat resembling our sycamore; the leaves are about eight or nine inches in diameter, and have a stalk a foot long. It bears very thick clusters of flowers, and about the end of July, or the beginning of August, there spring out of the branches little clusters of leaves, whiter and softer than the other, which are succeeded by small Nuts or berries, containing a white substance of an agreeable colour.

The Nuts mentioned in our text are, by most commentators, supposed to have been the pistachio Nut, peculiar to Judæa and Syria, and by the inhabitants of those

countries, were considered a great dainty; the tree itself sometimes grows to the height of thirty feet, with oval leaves alternately on each side of the branch, and terminated at the end by a single one; the Nuts are of an oblong and angular shape, rather larger than hazel nuts; are covered with a double shell, and the kernel is of a sweetish oily taste, and of an agreeable flavour.

OAK TREE.

OAK-TREE.

Quercus Ilex.—Quercus robur.—Plate 22.

And there came an angel of the Lord, and sat under an *oak* which was in Ophrah, that pertaineth unto Joash the Abiezite.—*Judges*, vi. 11.

And Absalom met the servants of David.—And Absalom rode upon a mule, and the mule went under the thick boughs of a great *oak*, and his head caught hold of the *oak*, and he was taken up between the heaven and the earth, and the mule that was under him went away. And a certain man saw it, and told Joab, and said, behold, I saw Absalom hanged in an *oak*.—*II Sam.* xviii. 9, 10.

The Oak is a native of Syria, Barbary, and Palestine; it is a well-known tree in all parts of Europe, and has ever been held in the greatest veneration by all the natives of the globe: it also grows abundantly in

the valley near Gethsemane; there are about twenty various species of the Oak, some of which are very different from others.

It was a common custom among the Hebrews to sit under the shadow of Oaks, and to bury their dead beneath them. The Oaks grow in woods, forests, and high mountainous places; the leaves are seen before the flowers, and the catkins may be seen in April and May, but the acorns are not ripe till August.

On the leaves and buds of the Oak, punctures are formed by insects, as the lodgment for their eggs, and a habitation for their young; these assume the appearance of excrescences, and in time become the nutgalls of commerce.

Oak bark is of very great use in tanning leather, and upon these accounts the Oak is called by some the king of trees.

This tree is remarkable for the slowness of its growth, for its great longevity, and the extraordinary dimensions to which it attains: several have been known to flourish for nearly a thousand years, and one, belonging to Lord Powis, and growing in Bromfield wood, near Ludlow, in 1764, measured no less than 68 feet in girth.

The Oak, (says Mr. Gilpin in his *Forest Scenery*,) is the most picturesque tree in itself, and the most accommodating in composition. It refuses no subject either in natural or in artificial landscape; it is suited to the grandest, and may with propriety be introduced into the most

pastoral; it adds new dignity to the ruined tower and gothic arch; by stretching its wild moss-grown branches athwart their ivied walls; it gives them a kind of majesty coeval with itself; at the same time its propriety is still preserved, if it throw its arms over the purling brook, or the mantling pool, where it beholds

"Its reverend image in th' expanse below."

It may not be amiss to mention here, an instance of Oak being preserved by air, when secured from moisture.—Among the curiosities belonging to King's College in the University of Cambridge, is reckoned not the least worthy of attention, the wooden roof which supports the lead of the truly magnificent chapel; above the

stupendous stone roof, is the wooden one just mentioned, made entirely of Oak, which though it has been erected above three hundred years, (the chapel being founded by king Henry the Sixth, A. D. 1444,) has not a worm or insect in it, nor is it in the least decayed, and withal looks as fresh as it could have done within twenty years after its first erection; the timber is reported to have been brought from Ireland, and it is a striking instance of the durability of this species of wood, when kept dry and covered from the vicissitudes of weather: a thousand years hence, if it should be the fate of this beautiful structure to stand so long, the roof, we may fairly conjecture, will have resisted the usual depredations of time, and still be tound and perfect.

"From a small acorn see the oak arise,
Supremely tall, and towering in the skies!
Queen of the groves, her stately head she rears,
Her bulk increasing with increasing years:
Now moves in pomp, majestic o'er the deep,
While in her womb Britannia's thunders sleep;
With fame and conquest graces Albion's shore,
And guards the Island where she grew before."

OLIVE-TREE.

Olea Judaica.—Plate 23.

And the Dove came in to him in the evening; and lo, in her mouth was an *olive leaf* plucked off; so Noah knew that the waters were abated from off the earth.—*Genesis*, viii. 11.

The Olive tree abounds in the land of Canaan, it is also a native of the north of Africa, and the south of Europe; it is cul-

OLIVE TREES.

tivated in France, Spain, and Italy, for the sake of its fruit, and the oil expressed from it; it thrives to perfection in the southern parts of France, particularly in Provence, the oil of which country is by some preferred to that of Spain or Italy.

The leaves of the Olive-tree resemble those of the willow; and its fruit, which has a stone in it, is about the size of a small nutmeg; the Olives, whilst upon the tree, are exceedingly bitter; but this bitterness is corrected by the method of curing such as are preserved for eating; those intended for this use are gathered long before they are fit to yield their oil, and laid to steep for some days in fresh water, after which they are put into a ley made of ashes and lime, and then removed into a liquor of

salt and water, with which they are put up into little barrels, to be sent abroad: to give them a fine flavour, they throw over them an essence, composed of cloves, cinnamon, coriander, fennel, and other aromatics: this is a secret among those who deal in olives, in which, indeed, lies all the difficulty of the preparation.

The trunk of the cultivated Olive is knotty; its bark is smooth, and of an ash colour, and the wood is solid and yellowish. In the month of July, it puts forth white flowers, growing in bunches, each of one piece, indenting toward the top, and dividing into four parts; after this flower succeeds the fruit (which we have before described), and which is principally valued for the oil produced by expression;

for this purpose, they are gathered when fully ripe, and immediately bruised and subjected to the press: the finest oil flows first, and a very bad oil is obtained by boiling what remains after expression, in water.—Good olive oil should have a pale yellow colour, rather inclining to green, of a bland taste, without smell, and should congeal at 38° Fahrenheit: in this country it is frequently rancid, and sometimes adulterated.

As the laurel branch is the symbol of glory, so the Olive branch, covered with leaves, has, from the most ancient times, been the emblem of concord, the symbol of friendship and peace.

When Noah wished to ascertain if the waters of the deluge had abated, he sent

forth the dove, who returned with an Olive leaf in her mouth; a very beautiful and expressive emblem of returning peace to the remnant of mankind.

It was the custom of the Jews to anoint with oil persons appointed to high offices, as the priests and kings, vide Psalm cxxxiii. 2; also I Samuel, x. 1, and xvi. 13:—the anointing with this liquid seems also to have been reckoned necessary on festival dresses, as in Ruth, iii. 3.

Washing the feet and anointing the head with oil, were the first civilities that were paid among the Jews on entering a friend's house; after the slaves had performed the first office, the heads of the guests were anointed with oil, and their hair drenched in aromatic unguent.

Olive oil rubbed upon a wound occasioned by the bite of a viper, and also taken internally, is a certain remedy; on which account the viper-catchers have always a bottle of this oil with them in case of need.

In Scripture we only read of two kinds of Olives, the wild Olive and the cultivated Olive; and the Olive yards so frequently alluded to seem to show that almost every wealthy inhabitant encouraged the produce of the Olive nearly as much as that of the grape.—The Oleaster, or wild Olive, is of a smaller kind.

PALM-TREES.

Phœnix dactylifera.—Plate 9.

And they came to Elim, where were twelve wells of water, and three score and ten *palm-trees:* and they encamped there by the waters.—*Exodus*, xv. 27.

The Palm-tree is found in a variety of the warm countries in the south of Asia, and the north of Africa; they were numerous on the banks of Jordan, but the best were those around Jericho and En-gedi, which latter place is for that reason called Hazazon-tamor, the cutting of the Palm-trees. This tree grows very tall and upright, and its leaves retain their greenness throughout the whole year; the more it is exposed to the sun the better is its growth.

Palm trees produce but little fruit, till about thirty years old; after which, while their juice continues, the older they become the more fruitful they are, and will bear three or four hundred pounds of dates every year. The date is a most sweet, luscious kind of fruit, on which most of the inhabitants of Persia, Arabia, and Egypt, entirely subsist.

A species of rich honey or syrup, and a spirituous fermented liquor called Arâky, are obtained from it; there is also extracted from the Palm-tree a kind of wine, which is perhaps what the Scripture calls *shichar*, or strong drink.

As the sap is chiefly in the top of the tree, when they intend to extract a liquor from it, they cut off the top, where there

is always a tuft of spring leaves about four feet long, and scoop the trunk into the shape of a bason; here the sap ascending lodges itself at the rate of three or four English pints a day; for the first week or fortnight, after which it gradually decreases, and in six weeks or two months the whole juice will be extracted.

As Palm-trees were accounted symbols of victory, branches of Palm were carried before conquerors in their triumphs; and in allusion hereto, the saints are said to have palms in their hands, to denote the victory over sin, Satan, the world, the persecutions of Antichrist, &c. Rev. vii. 9.

A remarkable experiment to prove the fructification of this tree, occurs in the 47th volume of the Philosophical Transac-

tions. There was a great Palm-tree in the garden of the Royal Academy at Berlin, which flowered and bore fruit for thirty years, but the fruit never ripened, and when planted it did not vegetate; this tree Linnæs discovered to be a female plant, and as there was no male Palm in its vicinity, the flowers never came to maturity.

At Leipsic, twenty German miles from Berlin, was a male plant of this kind, from which, in April, 1749, a branch of flowers was procured, and shaken so that the dust, or farina, fell upon the flowers of the unfruitful tree. This experiment was so successful, that the Palm-tree produced more than a hundred perfectly ripe fruit, from which they had eleven young palms; on repeating the experiment next year, the

Palm-tree produced above two thousand ripe fruit. This experiment fully established the fact attested by the ancients concerning the Palm-tree; which some have regarded as fabulous.

This tree exhibits great variety in fruit, size, quality, and colour; twenty different kinds have been enumerated. Perhaps no tree whatever is used for so many and such valuable purposes as the Palm, or date tree; even the stones are given to camels and sheep as food.

PAPER-REEDS.

Cyperus Papyrus Egypticæ.—Plate 21.

THE *paper-reeds* by the brooks, by the mouth of the brooks, and every thing sown by the brooks, shall wither, be driven away, and be no more.—*Isaiah*, xix. 7.

PAPER-REEDS are a kind of bullrushes that grow in Egypt, along the banks of the Nile; of these the Egyptians make baskets, shoes, clothes, and small boats for sailing on the river side,—vide Exodus, ii. 3, and Isaiah, xviii. 2.

To make paper of this bullrush, they peeled off the different skins or films, one after another; these they stretched on a table to the intended length or breadth of

the paper, and overlaid them with a kind of thin paste, or muddy water of the Nile, a little warmed, above which they spread a cross layer of other films or leaves, and then dried it in the sun; the films nearest the heart of the plant made by far the finest paper.

When Ptolemy, king of Egypt, denied Attalus, king of Pergamus, this kind of paper for the writing of his library, he invented, or considerably improved the making of parchment, or paper, of skins; after which, books of note were ordinarily written on parchment, for almost thirteen hundred years.—The parchments that Paul left at Troas, and ordered Timothy to bring with him, were probably either the original draft of some of his epistles, or a noted

copy of the Old Testament,—vide II Timothy, iv. 13.

The Papyrus, or *Cyperus Niliarus*, is a large plant that grows wild in the midst of the stagnant water left in hollow places, after the inundation of the river Nile.

We are told, by Theophrastus and Pliny, that the natives used the roots for fuel, as well as the other purposes of wood; that they built little boats of the plant itself, and formed the inner bark into sails, mats, garments, coverlets, and cordage; that they chewed it both raw and soddened, and swallowed the juice as a dainty; but of all its uses the most celebrated was that of its serving to write upon, like our paper, which derives its name from this Egyptian plant: the intermediate part of the stalk

was cut and separated into different lamina, which were set apart and dried in the sun, for manufacture; these lamina were joined together horizontally and transversely, in sheets or leaves, upon a smooth board; then moistened with water, which dissolved a kind of viscous glue in the pores of the plant, serving to cement, and render the whole uniform. The sheet being thus formed, was put into a press, and afterwards dried for use.

Such was the process of making paper, formerly, in Egypt; but as the sheets were coarse, brown, unequal, and imperfect, the Romans invented methods to bring the fabric to perfection; they contrived a glue or gum, by means of which they could occasionally enlarge the size and thick-

ness; they bleached it to a surprising degree of whiteness; they beat it with hammers, so as to render it more thin, and less porus; they smoothed and polished it with ivory, and by a sort of calendar or rolling machine, gave it a shining gloss equal to that of Chinese paper.

According to the various degrees of delicacy, whiteness, and size, it acquired different appellations, either from the names of particular manufactories, from the great personages who used it, or from the particular uses to which it was put; such as the Faunian, the Leviathan, the Claudian, the Imperial, the Hieratic, and the Amphitheatric.

PINE-TREE.

Pinus Orientis.—Plate 25.

Go forth unto the mount, and fetch olive branches, and *pine* branches, and myrtle branches, and palm branches, and branches of thick trees, to make booths, as it is written.—*Nehemiah*, viii. 15.

THE Pine-tree grows abundantly in Palestine and Syria, as well as in all parts of Europe, and is somewhat akin to the fir: it yields both resin and pitch, and the heart of it, when fully lighted, will burn like a torch:—it thrives best in mountains and sandy places, and if its under branches be cut, it grows the higher, and is the better, if it be often watered while young; it bears fruit during the winter, and unless

PINE TREE.

the bark be pulled off, its abundant moisture causes worms to lurk between the bark and the wood: sometimes its excess of fatness stifles its own growth:—if laid under water, or kept perfectly dry, the wood of it will last for a long time:—the Hebrews used branches of it to form their booths at the Feast of Tabernacles.

There are thirty-three different species of the Pine tree; a few are natives of Asia; many, European; but most are originally from America.—Real Burgundy pitch is collected from the *Pinus puca*, or spruce fir tree; the resinous juice which exudes from this species is less fluid and less transparent than the proper turpentines; it is collected by the peasants, strained through cloths, and put into barrels; if its

consistence be too thick, it is mixed over the fire with a little oil of turpentine.

To obtain this juice, a number of wounds are made through the bark into the wood, beginning at the bottom, and rising gradually upwards, until a strip of the bark about nine feet high be removed, which is commonly effected in about four years; the same operation is then repeated on the opposite side.—The operation is commenced close to the edges of the former wound, which, by this time is nearly closed. A tree worked in this manner will vegetate and furnish turpentine for nearly a century. The juice, or turpentine, which flows from these wounds during summer, is collected in a small cavity formed in the earth at the bottom of the incisions,

from which it is occasionally removed into proper reservoirs previous to its purification.

As these trees exude very little juice during cold weather, no new incisions are made in the winter; but the old ones get covered with a soft resinous crust, called *barras*, when it is impure and mixed with bits of bark dust and sand; *gallipot*, when collected with more care; or *white incense*, when it is allowed to remain so long exposed that it becomes resinified, which is scraped off, and also collected for subsequent purification; in short, all the Pine tribe are valuable for some purpose or other.

POMEGRANATE-TREE.

Malus Punica.—Plate 21.

And Saul tarried in the uttermost part of Gibeah, under a *pomegranate-tree* which is in Migron: and the people that were with him were about six hundred men.—*I Samuel*, xiv. 2.

I would lead thee, and bring thee into my mother's house, who would instruct me: I would cause thee to drink of spiced wine of the juice of my *pomegranate.—Song of Sol.* viii. 2.

The Pomegranate-tree is a species of the apple very common in Persia, Aleppo, and Palestine, and also a native of the south of Europe; its breadth is greater than its height; the wood is hard and knotty, and the bark reddish; its leaves are of a green colour inclining to red, and somewhat like those of myrrh; the blossoms are large,

comely, and reddish, and the cup formed by them is of the shape of a bell: when the flowers are double, no fruit follows.

There are two species of Pomegranate tree, the wild and the cultivated; the wild trees are more prickly than those of the latter kind.

The apple of the Pomegranate-tree is extremely beautiful, reddish both within and without; the juice of it is like wine mixed with little kernels; nay, wine is frequently made of it, as is mentioned in the foregoing text.—The rind or shell is considerably large and hard; and in Peru it seems sometimes used for a barrel. The long robe of the Jewish High Priest was hung round the lower hem with bells and Pomegranate leaves alternately, Exodus, xxviii.

33, 34; and on the net work which covered the two pillars of the temple, Jachin and Boaz, there were two hundred figures of Pomegranates, ninety-six of which were seen on each side, I Kings, vii. 18, 42, and II Kings, xxv. 17.

The Pomegranate-trees at the Cape of Good Hope are much larger than in any other part of the known world; the fruit is also so large and in such plenty, that it is frequently necessary to prop up the branches to prevent their being broken down by their weight: there are two sorts of them, the kernels of which differ in colour; one being yellow, and the other of a bright crimson; but they both contain a very pleasant cooling juice, which is extremely refreshing in hot weather.

POPLAR TREES.

The Pomegranate-tree is sometimes to be met with in our gardens; but the fruit, for which it is chiefly valued, rarely comes to perfection; the flowers are of an elegant red colour, in appearance resembling a dried red rose.

POPLAR-TREE.

Populus Alba.—Plate 14.

THEY sacrifice upon the tops of the mountains, and burn incense upon the hills, under oaks, and *poplars*, and elms, because the shadow thereof is good.—*Hosea*, iv. 13.

THERE are several species of the Poplar-tree, which was a native of the east, and grew plentifully in the land of Judæa and Palestine: we shall, however, confine our-

selves to a brief description of the black and the white Poplar, as those most frequently to be met with in this country; particularly as the latter has been given by the Septuagint as the correct rendering of the original Hebrew word *Libneh,* in the foregoing text of the Scriptures.

The black Poplar, (*populus nigra,*) is distinguished by its leaves from the white, (*populus alba*), being of a dark green colour, and likewise from its greater size; it grows very rapidly near rivers and in shady moist situations; it flowers in the month of March; and excrescenses, occasioned by the puncture of some insect, are occasionally found on its leaves; it is very common in Lancashire and Cheshire. The wood of this species is soft, light, and not

apt to splinter; when sawed into boards and sap dried, it is very durable and useful to the engraver. The bark resembles cork; and is employed by fishermen to support their fishing nets; the leaves are eaten by cattle.

The white Poplar is different from the other by "its leaf lined with silver;" it grows in hedges and brooks, where it flowers in the month of March; it delights in gravelly soils and lofty situations, though it also thrives in clayey lands.

This tree is remarkable for its speedy growth, as it attains its full size in twenty years; it is advantageously employed for wainscotting and floors, as well as for packing-boxes, lathes, and turnery wares: it grows in almost every part of the known

world, and the wood is of much greater use than that of the black Poplar. In France they make wooden shoes of it, and it serves every where for the heels of women's shoes, for which in former days it was principally used, but these heels have long since gone out of fashion. The dried leaves afford excellent provender for sheep during the winter; it bears cropping well, but its shade is unfavourable to pasture.

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REEDS AND FLAGS.

Calamus Scriptorius.—Plate 26.

THEY shall turn the rivers far away; and the brooks of defence shall be emptied and dried up: the *reeds* and *flags* shall wither.—*Isaiah*, xix. 6.

He lieth under the shady trees, in the covert of the *reeds*, and fens.—*Job*, xl. 21.

REEDS grow in fenny and watery places throughout Asia, Egypt, and all parts of Europe, and are of many different kinds: the common Reeds of our own country are of no great use except for thatching houses; the paper-reeds of Egypt (which we have already described); the sugar-reeds, or "sweet cane" of the Scriptures; and the Spanish reeds, of which walking

sticks and weavers' reeds are formed, are of much more account.

The Reeds at Babylon were burnt with fire; either those that were growing on the banks of the Euphrates were deprived of their moisture when the current was diverted, or else they, or those on the roofs of houses, were burnt by the Persians.

A staff made of Reed, was put into our Saviour's hand by way of derision, instead of a sceptre; and with this, they held up to him on the cross, the sponge dipped in gall and vinegar.

Christ will not break the "bruised reed nor quench the smoking flax;" he will not utterly destroy, but kindly help, care for, and comfort the weak saints that are upon

the point of losing all their grace and comfort.

Our Saviour, speaking of John the Baptist, says, that he was not a Reed shaken in the wind, Matthew, xi. 7: he was not of an unsettled mind; but constant and fixed in the truth, his testimony was always the same.

One species of Reed was anciently used for writing on papyrus or parchment, similar to our pen, as will be found in use by the scribes alluded to in the third book of Maccabees, and also the following passages in Scriptures: "The pen of the scribes is in vain," Jeremiah, viii. 8; and again, "I had many things to write, but I will not with pen and ink write unto thee," III John, 13.

Flags are supposed to be the long thick grass, or sedge, which grows in the meadows, and on the marshy banks of the river Nile, in Egypt, on which cattle and oxen plentifully feed; of the fibres and leaves of this plant, when platted, the Egyptians make strong ropes, cordage, matting, &c.

Rose. Reeds & Flags.

Rye. Rue.

ROSE.

Rosa Sharonæ.—Plate 26.

I AM the *rose* of Sharon, and the lily of the valleys.—*Song of Sol.* ii. 1.

The wilderness and the solitary place shall be glad for them; and the desert shall rejoice, and blossom as the *rose.*—*Isaiah*, xxxv. 1.

TOURNEFORT mentions fifty-three kinds of Roses, of which the Rose of Damascus and the Rose of Sharon are among the finest for fragrance of smell, beauty of form, and richness of colour; almost all the celebrated poets of Persia, Arabia, and Europe, have extolled the splendid charms of this flower, and Dr. Jeremy Taylor makes the following remark on its beauties:

"I have seen a Rose newly springing from the clefts of its hood, and at first it was fair as the morning, and full with the dew of heaven as a lamb's fleece; but when ruder breath had forced open its virgin modesty, and dismantled its too youthful and unripe retirements, it began to put on darkness, and to decline to softness and the symptoms of a sickly age; it bowed the head, and broke its stalk; and at night, having lost all its beauty, it fell into the portion of weeds and worn-out faces."

Roses and the tree that bears them, are universally known throughout the world, and their beauty and fragrance are as universally extolled, particularly in eastern countries; where their perfume is much superior to the Rose of Europe: they generally thrive best in a rich, moist, open soil; for where the soil is dry, and the situation too much in shadow, the flowers are less beautiful.

Jesus Christ is called the "Rose of Sharon:" how unbounded his comeliness, delightfulness, and efficacy for the healing of our souls!

Roses in general are delightful to view, fragrant in their perfume, and useful in medicine; the essence of the Damask Rose is an excellent perfume; and a single drop of the Persian extract, called "ottar of roses," imparts an almost-overpowering fragrance throughout all the apartments of the dwelling, and is acknowledged to be the most admirable perfume in vegetable nature.

TO THE ROSE.

BLOOMING, beauteous, fragrant flower,
Emblem of life's fleeting hour!

Smiling scarce a summer's day,
You decline, and die away!
Life's short season both deplore:
We, like you, must be no more.

You this excellence can boast,
When your beauteous bloom is lost,
That in you, we gladly find
Grateful odours left behind;
Though you fade, yet spring, again
Bids you rise, and scent the plain.

Rose! like yours, our season lasts,
Often nipp'd by envious blasts;
Yet shall we, when lost to time,
Flourish in some happier clime,
Climes, where ever verdant grow,
Joys which cannot bloom below!

RUE.

Ruta chalepensis.—Plate 26.

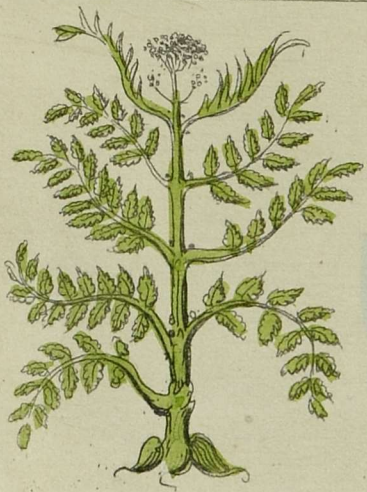
BUT woe unto you, Pharisees! for ye tithe mint, and *rue*, and all manner of herbs, and pass over judgment and the love of God.—*Luke*, xi. 42.

RUE is a native of the south of Europe, Syria, Palestine, and Judæa; and being a hardy plant, is cultivated successfully in our gardens; it has a strong ungrateful smell, and a bitterish penetrating taste; the leaves, when full of vigour, are extremely acrid, so much so as to inflame and blister the skin if much handled.

There are seven species of the Rue, but the most remarkable is the Hortensis, or

common broad-leaved garden Rue, which has long been cultivated for medicinal use.

The leaves of the Rue plant are divided into several segments, and are small, oblong, smooth, and of a sea-green colour, and placed by pairs in a rib terminating in a single leaf; this plant has a woody root furnished with a number of fibres, and sends forth stalks in the form of a shrub, and sometimes rises to the height of five or six feet, and are divided into several branches; the flowers grow on the tops of the branches, and are of a pale yellow colour. Rue may be propagated either by seeds, cuttings, or slips; and is green all the year round.



Spikenard.

Sponge.

RUSH.

Arundo Palustris.—Plate 27.

CAN the *rush* grow up without mire? can the flag grow without water? Whilst it is yet in his greenness, and not cut down, it withereth before any other herb.—*Job*, viii. 11, 12.

"A BULLRUSH without water," is proverbial; it is adapted to the hypocrite, who while he suddenly grows up, withers as suddenly; and while he flourishes most verdantly, is immediately dried up.

The Bullrush grows in marshy grounds, on the banks of the river Nile, similar to the Egyptian paper-reeds: the Rush (*Juncus effuses*) is a genus of plants comprehending forty-one species, mostly natives

of Europe; nineteen are common to the marshes, bogs, and wet pastures of our own country; several indigenous to America, and a few to the Cape of Good Hope. Of the different species nearly half have naked, and the rest leafy, culms; the whole are generally regarded as weeds; yet in many countries, and especially in Holland, several species are regularly tied up in bundles as fuel; a few of them are of still higher value, some by their growth giving tenacity to the banks of rivers, others affording useful matting for floors and chairs, others furnishing from their pith the stem or wick for the night candles called rush-lights.

RYE.

Triticum Spelta.—Plate 26.

But the wheat and the *rye* were not smitten, for they were not grown up.—*Exodus*, ix. 32.

Doth the ploughman plough all day to sow? doth he open and break the clods of his ground? When he hath made plain the face thereof, doth he not cast abroad the fitches and scatter the cummin, and cast in the principal wheat, and the appointed barley and the *rye* in their place?—*Isaiah*, xxviii. 24, 25.

Rye is a grain common to the eastern countries, and was introduced, many years ago, into England, from Candia; it is commonly used for bread, either alone or mixed with wheat; this mixture is called *blend corn* or *maslin*, and was formerly very common in some parts of Britain.

Mr. Marshal tells us, that the farmers in Yorkshire believe that this mixed crop is never affected by mildew, and that a small quantity of Rye sown among wheat, will prevent this destructive disease.

Rye is much used for bread in some parts of Sweden and Norway, by the poor people. About a century ago, Rye bread was also much used in England, but being made of a black kind of Rye, it was of a dark colour, clammy, very detergent, and consequently not so nourishing as wheat.

The straw of this grain is superior to that of wheat, both for the purpose of thatching houses, and for the use of collar makers.

The original Hebrew word for this grain in the Scriptures is *Casam*, signifying to

possess long hair; hence the translators have rendered it as Rye, a bearded grain.

SAFFRON.

Crocus Sativus.—Plate 27.

THY plants are an orchard of pomegranates, with pleasant fruits; camphire with spikenard; spikenard and *saffron*; calamus and cinnamon, with all trees of frankincense, myrrh, and aloes, with all the chief spices.—*Song of Sol.* iv. 13. 14.

FROM this text, it would appear that saffron was considered as an odoriferous spice by the ancients; it is now, however, more used in medicine and in the arts than as an agreeable perfume: it grows abundantly in Palestine, Judæa, Syria, Persia, and other parts of the east; it is

an odoriferous herb, which, in this country, is planted in the month of September, and is in full flower in the February following, after which its leaves spring forth, and continue till May. The Saffron is of a deep orange colour, and a very strong aromatic odour; it is used in medicine as a cordial, and was formerly much esteemed in cookery; it gives a fine bright yellow dye, but is little used as such, the colour being very fugitive. That produced in England is generally esteemed the best; it is chiefly cultivated in Essex, between Cambridge and Saffron Walden. As soon as the flowers appear, they are gathered by hand every morning, just before they open; and as they continue to open in succession several weeks, the Saffron har-

vest, of course, continues as long. It is then dried in a kind of portable kiln, and pressed into a cake for sale.

SHITTIM-WOOD.

Acacia Vera.—Plate 30.

And thou shalt make an altar of *shittim-wood*, five cubits long, and five cubits broad; the altar shall be four square; and the height thereof shall be three cubits.—*Exodus*, xxvii. 1.

Shittim-wood was a kind of timber very valuable, and much used by Moses in the formation of the Tabernacle and its furniture; Jerome represents it as similar to the white thorn. It is most likely to have been the black acacia, which is said to be the

only tree that grows in the Arabian desert; its wood is smooth, beautiful, tough, hard, and almost incorruptible: it was probably from the plenty of this wood there, that a place on the east of Jordan, was called Shittim, and where the Hebrews encamped a considerable time. This tree is so large as to furnish very long planks.

SPIKENARD.

Nardus Indica.—Plate 27.

WHILE the king sitteth at his table, my *spikenard* sendeth forth the smell thereof.—*Song of Sol.* i. 12.

And being in Bethany, in the house of Simon the leper, as he sat at meat, there came a woman having an alabaster box of ointment of *spikenard* very precious, and she brake the box, and poured it on his head.—*Mark*, xiv. 3.

SPIKENARD is an odoriferous plant, abounding in the Island of Java, and other parts of the East Indies; its shoots grow even with the surface of the ground, or even below it; the spica, or ear, is about the length or thickness of one's finger, and is very light, covered with long reddish hairs; and is of a strong smell and bitterish taste.

The plant is of a heart-warming and poison-expelling quality, and as such is used in the treacle of Venice; the ointment made of it was very precious, and in high estimation among the ancients.

SPONGE.

Spongia infundibuliformis.—Plate 27.

And straightway one of them ran out and took a *sponge* and filled it with vinegar, and put it on a reed, and gave it him to drink.—*Matthew*, xxvii. 48.

Whether Sponge, a sea production found adhering to rocks, shells, &c. be a vegetable, a mineral, or an animal, has been not a little disputed; but it is now generally allowed to be of the order of *Zoophytes*,

a class that includes all those excrescent kind of plants that adhere to rocky coasts, and that are at once the habitation and production of myriads of sub-marine insects; they are distinguished by their peculiar property of absorbing a great deal of moisture, and are of considerable use for fomenting wounds, for yielding volatile salt, and for choking noxious animals.

The greatest part of our Sponges are brought from the Mediterranean, especially from Macaria, an island near the coast of Asia, and west of Samos. Mr. Savary, in his letters on Greece, mentions Sime, or Simo, an island north of Rhodes, as famous for Sponges; they grow in abundance round the island; and this fishery, he adds, is the only support of its inhabitants; men,

women, and children: all know how to dive, and plunge into the water in search of the only patrimony bestowed on them by nature; for the island, which is only a rock of large extent, and extremely stony, produces neither grain nor fruit.

The fine or small Sponges are most esteemed, and usually come to us from Constantinople; their goodness consists in their being very white, and light, and the holes small and close together; the larger and coarser Sponges come from the coasts of Barbary, particularly about Tunis and Algiers. Sponges belong to that division of the Zoophytes which are attached to a solid trunk, and are particularized by their base being springy and fibrous.

SYCAMORE TREE.

SYCAMORE.

Ficus Ægyptiacia.—Plate 29.

THEN answered Amos, and said to Amaziah, I was no prophet, neither was I a prophet's son; but I was an herdman, and a gatherer of *sycamore* fruit.—*Amos*, vii. 14.

And Zaccheus ran before, and climbed up into a *sycamore* tree to see him; for he was to pass that way.—*Luke*, xix. 4.

THE Sycamore tree grows abundantly in Egypt, Arabia, and Palestine; it is supposed also to be a native of Germany, and it is reared in Britain, principally for the sake of its elegant and graceful appearance in plantations; it is of thick growth, though increasing in size till it is two hundred years old, and generally attaining the respectable age of four centuries; it will

flourish in exposed situations near the sea; the Sycamore, however, thrives most luxuriantly in a loose black earth: its flowers appear early, and greatly attract the bees. The Sycamore tree is very capricious in its attire, and soon changes its spring verdure for a more sombre tint—

"Now green, now tawny, and ere autumn yet
Have changed the woods, in scarlet honours bright."

Its wood is soft and white, and is employed by turners for manufacturing wooden bowls, dishes, trenchers, &c. the sap is converted by the Highlanders into an agreeable and wholesome wine; the juice of the Sycamore is sometimes used in brewing, instead of malt; there are two varieties of this tree, one having broad

leaves and large keys, while those of the other are variegated; the latter is chiefly propagated by inoculating and ingrafting.

The Sycamore is also called the Egyptian fig-tree, its name being composed of *Sycos*, a fig-tree, and *Meros*, a mulberry-tree; it partakes of the nature of each of these trees, of the mulberry-tree in its leaves, and of the fig-tree in its fruit, which is something like a fig both in size and shape; the fruit grows neither in clusters nor at the ends of the branches, but stretching to the trunk of the tree; its taste very much resembles that of the wild fig. Pliny and other naturalists observe, that this fruit does not grow ripe till it is nibbed with iron combs; after which nibbing, it ripens in a few days; and Jerome

upon Amos, says, that without this management the figs cannot be eaten, because of the intolerable bitterness.

These trees are sometimes so large, that three men can hardly grasp one of them. Sycamores were common in Egypt, Judæa, and other places, where the fruit is much esteemed at the present day, as the inhabitants subsist on it in a great degree; the fruit buds about the latter end of March, and ripens in the beginning of the month of June. As soon as the fruit has arrived to the size of an inch in diameter, they pare off a part at the centre point of each, without which they say it would not come to full maturity.

The wood of the Sycamore was used in Egypt for coffins, and in the mummy pits

has been found fresh when three thousand years old; there were also some very large in Judæa, as appears from Luke, xix. 4. Where Zaccheus is said to have climbed up into a Sycamore tree to see Jesus pass by, being of so low a stature that he could not otherwise see him, because of the multitude.

TARES.

Zizanion.—Plate 28.

ANOTHER parable put he forth unto them, saying, the kingdom of heaven is likened unto a man which sowed good seed in his field. But while men slept, his enemy came and sowed *tares* among the wheat, and went his way.—*Matthew*, xiii. 24, 25.

LEARNED men differ in their opinion concerning this plant, some conceiving it should be translated *Darnel*, or *Infelix Loluim*, which is a noxious weed that commonly grows up among the wheat; whereas Tares are a serviceable kind of pulse, of great use for feeding cattle; as a

Tares.

Thistle.

Thorn.

Vine.

hurtful weed, it denotes the wicked, particularly hypocrites.

The Vetch, or Tare, has several neat stalks, about two feet high, which are angular and hollow; the leaves vary greatly, for some are long and narrow, and others almost round; the flowers are either single or double, and are variegated with purple spots; the pods are full of small white or purple seeds, of the size of a small pea; it is cultivated in the fields; and the meal is sometimes used in medicine. In some years of great scarcity, poor people have been obliged to make bread of it, as was the case in the year 1709; but it is hard of digestion, and lays very heavy on the stomach. As a weed, it is very common in Syria, Turkey, and

Arabia; and pigeons are said to be very fond of the grain as food.

The parable of the Tares shows plainly that the wickedness of men cannot be prevented without disturbing the order of nature; it is not fit always to punish sinners in this life, because of their connection with the righteous, who would necessarily suffer by their ruin. It also teaches us to wait our Master's time, and be patient till the day of the Lord come; when a perfect endless separation shall be made; then the good shall be everlastingly rewarded, and the evil punished eternally.

This weed is called *Zizanion* by the Spaniards, and appears to be the *Zuvan* of the Arabians; in Syria, the plant is

drawn up by the hand along with the wheat, in the time of harvest; it is afterwards gathered out, and bound up into bundles separately, as stated by our Lord in the above parable of the Tares: Gather ye together first the Tares, and bind them in bundles to burn them; but gather the wheat into my barn.—Matthew, xiii. 30.

THISTLE.

Carduus Palestinæ.—Plate 28.

LET *thistles* grow instead of wheat, and cockle instead of barley.—*Job*, xxxi. 40.

Ye shall know them by their fruits; do men gather grapes of thorns, or figs of *thistles*.—*Matthew*, vii. 16.

THE Thistle is a well-known prickly weed, that grows abundantly in Palestine, Egypt, and the East, as well as throughout every part of Europe, both in the open fields and also among corn. Tournefort mentions no less than eighty different species of Thistle; many of which are extremely beautiful, and well deserving the attention of the curious.

The "blessed Thistle," *Carduus Benedictus*, is an annual plant, a native of Spain, and the Islands of the Archipelago: it flowers during the summer months, and is cultivated in many gardens in this country, for its beauty, as well as its medicinal properties; and thrives here as well as in its native soil.

The *Carduus Globosus*, or Globe Thistle, is a very interesting plant; the stalk is downy, furrowed, and grows to the height of three or four cubits, and is without prickles; the leaves are a foot or a foot and a half long, narrow, and covered underneath with down, but are of a black green above, and armed with long, stiff, sharp prickles; there are large round scaley heads on the tops of the branches,

armed with thorns that are not very prickly, among which is a white, thick down, with flowers consisting of several stamina of various colours; the flowers are succeeded by shining ash-coloured seeds, wrapped in a kind of wool or cotton. This plant grows on the sides of highways and uncultivated places, and flowers annually in the months of July and August, and sometimes later.

In the Scriptures, wicked men are compared to Thistles, to denote how useless they are, how barren of all good, and how hurtful to the community at large.

THORN.

Cratægus.—Plate 28.

Thorns also and thistles shall it bring forth unto thee; and thou shalt eat the herb of the field.—*Genesis*, iii. 18.

And Gideon said, therefore when the Lord hath delivered Zebah and Zulmunna into mine hand, then I will tear your flesh with the *thorns* of the wildorness, and with briers.—*Judges*, viii. 7.

THE Thorn grows plentifully in Syria, Judæa, and Arabia, and is a well-known prickly shrub throughout Europe, of which there are innumerable varieties; the lesser kind are called briars, and both are little more than cumberers of the ground, being almost entirely useless for any thing ex-

cepting fuel, and occasionally strengthening and defending hedges, fences, &c.

The crown of Thorns platted for our Saviour in cruel mockery and derision, is supposed to be a species of the white Thorn, because it grows plentifully about Jerusalem, and is very prickly.

The shrub or tree called *Paliurus*, or the "*Thorn of Christ*," is a native of Palestine, Spain, Portugal, and Italy; it will grow nearly to the height of fourteen feet, and is armed with very sharp thorns; two of them are fixed at each joint, one being about half an inch long, straight and upright, and the other scarcely half that length, and bent backward; and between them both is the bud for the next year's shoot.

The month of June is the time of flowering, and the flowers are succeeded by a small fruit, surrounded by a membrane. This plant is strongly conjectured to be of that sort of which the crown of Thorns for our blessed Saviour was composed, the branches of it being very supple and pliant, and the spines of it at every joint strong and sharp. It grows naturally about Jerusalem, as well as in many parts of Judæa; and there is but little doubt that the barbarous Jews would make use of this instrument of torture for their cruel purpose.

What further tends to confirm the truth of these Thorns having been made use of, are the ancient pictures of our blessed Saviour's crucifixion; the thorns of the

crown on his head exactly answering to those of this tree; and there is great reason to suppose these were taken from the earliest painting of the Lord of Life; and even now, our modern painters copy from them, and represent the crown as composed of these Thorns. These plants, therefore, should principally have a share in those parts of a garden or plantation that are more particularly designed for religious retirement; for they will prove excellent monitors, and conduce in raising our minds in solemn reflection and the deepest gratitude to Him "who hath borne our griefs and carried our sorrows;" who was "wounded for our transgressions, and bruised for our iniquities," that "by his stripes we might be healed," "and to

bare the sins of many, and make intercession for the transgressors." Isaiah, liii. Thorns, in Scripture, frequently denote desolation and calamity, difficulties and hinderances, sore trials and afflictions.

VINE.

Ampelos.—Plate 28.

And Noah began to be an husbandman, and he planted a *vineyard.—Genesis*, ix. 20.

I am the true *vine*, and my father is the husbandman.—*John*, xv. 1.

And your threshing shall reach unto the *vintage*, and the *vintage* shall reach unto the sowing time; and ye shall eat your bread to the full, and dwell in your land safely.—*Leviticus*, xxvi. 5.

There were abundance of Vineyards in Palestine; and it is supposed that Vines were first brought from Asia to Europe by the Phœnicians, who were some of the earliest navigators along the Mediterranean coast; and who transferred them to most

of the islands, as well as the continent of Europe. The Vine succeeded admirably in the Islands of the Archipelago, and was afterwards introduced into Greece and Italy; from thence it passed the Alps, being found at Marseilles and other places, when Gaul was conquered by Julius Cæsar; but its cultivation was prohibited by Domitian: and neither the Gauls nor Spaniards were permitted to plant it till the reign of the Emperor Probus, who was sensible that the promotion of agriculture ought to be inseparable from a good government.

Vines were at length propagated throughout all France and Spain; the German nations on the banks of the Rhine, followed the example; and, by degrees, they

were planted universally in all countries, where the genial temperature of the climate afforded any probability of their success.

In Judæa and Syria there were many excellent Vineyards. Jacob in his blessing to Judah says,—"Binding his foal unto the Vine, and his ass's colt unto the choice Vine; he washed his garments in wine, and his clothes in the blood of grapes."—Genesis, xlix. 11; this was to show the abundance of Vines that should fall to his lot.

Noah planted the Vine after the deluge, and was the first that cultivated it, as we have already noticed in Genesis, xx. 9. Many are of opinion that wine was not unknown before the deluge; and that this

patriarch only continued to cultivate the Vine after this great catastrophe, as he had done before: but the Fathers think he knew not the force of wine, having never used it before, nor having ever seen any one use it; he is supposed to have been the first that pressed out the juice of the grape, and to have reduced it to a potable liquor; before his time, men only ate the grapes like other fruit.

Some Vines bear very large clusters of grapes; that cluster already described under the article Grapes, page 104 of this work, which the Hebrew spies brought from Eschol, was carried on a staff between two of them; and we read of clusters there of about twenty-five pounds in weight. We also read of a cluster in

the eastern part of Persia, that produced about twenty-three Scotch gallons of wine, and of another about three feet and a half long.

As the Hebrews were much employed about their Vines and fig-trees, their customary habit of sitting beneath them imported their safety and prosperity, as in —I Kings, iv. 25, "And Judah and Israel dwelt safely, every man under his Vine and under his fig-tree, from Dan even to Beersheba, all the days of Solomon."

In the grape-house belonging to Hampton-Court Palace, is a most celebrated Vine, the admiration of all travellers; which in one year produced two thousand two hundred bunches of grapes, averaging one pound weight each.

WHEAT.

Triticum hybernum.

And Solomon gave Hiram twenty thousand measures of *wheat* for food to his household, and twenty measures of pure oil; this gave Solomon to Hiram year by year.—*I Kings*, v. 11.

He maketh peace in thy borders, and fillest thee with the finest of the *wheat*.—*Psalm* cxlvii. 14.

Wheat is an universal grain in all parts of the habitable globe, well known for its durableness, and delightful and nourishing substance. The Jews began their Wheat-harvest about Whitsuntide, and their writers say, their best Wheat grew in Michmash, Mezonichah, and Ephraim; but it seems that of Minnith and Pannag

were to the full as good, as mentioned in Ezekiel, xxviii. 17: "Judah and the land of Israel, they were thy merchants; they traded in thy market, Wheat of Minnith and Pannag, and honey, and oil, and balm." With us, Wheat is generally sown at the end of harvest, and is ten or eleven months in the field.

"We see (says a celebrated modern writer) how the young Corn daily increases, and the tender ears ripen insensibly, till in a few weeks they will afford us nourishing bread; a blessing which the bountiful hand of Nature bestows upon the labour of man: let us for a while cast our eyes over a field of Wheat, and endeavour to enumerate the millions of ears which gently wave with every passing breath of air;

and then let us reflect upon the wisdom of those laws, which cause such abundance to bless the earth; what preparations are necessary to procure us nourishment so useful and sweet; and what changes must take place before the ear can be formed! it is nearly ready to reward our care with its nourishing fruits; and invites us to meditate upon its admirable structure."

When a grain of Wheat has been some time in the earth, it shoots up a stalk which rises perpendicularly, but advances very gradually, to favour the ripening of the grain; by its growing so high, the grain is preserved from the moisture of the ground, which otherwise would rot it; and the height of the stalk also contributes to perfect the juices that ascend from the

root; and its round form favours this operation, by admitting the action of heat to penetrate every part of the stem. It seems wonderful that so delicate a stem should support itself and bear so many grains, without sinking beneath its burden, or being laid low by every breath of wind.

But nature has wisely provided against all these inconveniences, in furnishing it with four very strong knots, which strengthen it without lessening its pliability; the structure of these knots evinces infinite wisdom; like a fine sieve, they are full of very small pores, through which the sap rises, and the heat penetrates. The stalk is liable to be beat down by tempests and heavy showers, but its suppleness secures it from injury, it is flexible

enough to bend without breaking; were it more stiff it would be shivered by the storm, and thus rendered totally unfit for straw.

From the principal stalk shoot others, not high, that bear leaves which collecting the drops of dew and rain, supply the plant with those nutricious juices so necessary to its support; while the most essential part of the plant, the ear, is very gradually formed. To preserve its tender sprouts from the dangers and accidents which might destroy them the first moment of their appearance, the two upper leaves of the stalks unite closely, to preserve the ears, as well as to furnish them with the necessary juices. As soon as the stalk is sufficiently formed to be able of

itself to supply the grain with juices, the leaves gradually dry, that nothing may be taken from the fruit, and that the root may have nothing to support which is useless. When these leaves are removed, the young ear waves gracefully in unveiled beauty, and its beard serves it both as an ornament and a defence against birds and insects; refreshed with gentle rains, it flourishes, and inspires the husbandman with the most pleasing hopes; it ripens from day to day, till at length, bowing beneath the weight of its riches, its head yields to the impulsive stroke of the sickle, and the farmer joyfully gathers in the golden sheaves.

Here we discover new marks of the great wisdom and all-beneficent power of

God, ever operating for the good of man. How wonderful is the structure of a single stalk of wheat! and what greater proof can we desire of the goodness of our Creator? open your eyes, ye that are indifferent, and see the fields wide waving round with the choicest gifts of Heaven, and you will no longer withhold the tribute of praise and of gratitude to your all-bountiful Father; remembering that he who can view a field of corn without his soul expanding on the wings of gratitude, or who does not feel rejoiced at the sight, is unworthy of the bread it so abundantly furnishes. Let us think as men endowed with minds capable of that most exquisite of all pleasures, the discovering the traces of an infinitely good, powerful, and beneficent Being, in

all the works of Nature; by this we shall raise ourselves far above the condition of brutes, and approach near to the angels of light.

Corn was adopted by the Jews not only as an emblem of fertility, but also as the symbol of a future state; and the close of life at mature age is compared to a shock of corn fully ripe. "Thou shalt come to thy grave in a full age, like as a shock of corn cometh in (to the garner) in its season."—Job, v. 26.

Wheat (Egyptian)

Wormwood.

Willow.

Shittim Wood.

EGYPTIAN WHEAT.

Triticum compositam Egyptiaca.—Plate 30.

And he slept and dreamed the second time; and behold seven ears of corn came up upon one stalk, rank and good.
And, behold, seven thin ears and blasted with the east-wind, sprung up after them.
And the seven thin ears devoured the seven rank and full ears. And Pharaoh awoke, and behold it was a dream.—*Genesis*, xli. 5, 6, 7.

A REMARKABLE emblem (says the editor of the fragments to Calmet's Dictionary of the Bible), that appears to us an unusual and monstrous production, is the Wheat in Pharaoh's dream just mentioned, which had seven ears full and good on one stalk. This has always been considered as a

liberty taken with nature, by way of furnishing a symbol; whereas the fact is, that a species of Wheat (as represented in our plate) which grows in Egypt, does actually bear, when perfect, this number of ears on one stalk, as its natural conformation. This Wheat differs from our own by having a solid stem, or at least a stem full of pith; in order to yield sufficient nourishment and support to so great a weight as the ears it bears, which demand a proportionate quantity of nutritive juices; whereas the stem of our own Wheat is a mere hollow straw.

By the favour of Mr. Taylor, the proprietor of Calmet's Dictionary, we are enabled to offer our readers a copy of the engraving of this peculiar plant.

The specimen here represented was grown in England, on the island of Foulness in Essex, by Mr. Henry Fisher, in the year 1797: not being in its native soil, it has degenerated from its proper fulness; nevertheless it has produced spread enough to justify the number of its ears of corn, and to demonstrate that when complete it was a very expressive symbol of plenty.

The produce of this Wheat is now much greater per acre than that of any other Wheat, though much inferior to what it was some few years ago, when first imported, and before it had degenerated so far from the parent plant; in another year or two, there will be probably only one ear on a stalk, and then it will be no longer worth while to cultivate it; as the

Wheat, though fine of its sort, is of a particular species called *rivel* Wheat, which does not sell so well in the London market as the common sorts.

A little indulgence of imagination might fancy that a thin blasted ear, not unlike to, or even smaller than, the dimensions of our English degenerated specimen, was such a plant as Pharaoh saw in his dream; while the full ear, significant of plenty, surpassed the magnitude of the plant represented in our plate.

Those parts of this specimen which were perfect, are more strongly shaded on the plate; those inserted by inference, and in conformity to the description of gentlemen who have seen the general body of it in a state nearer to perfection, are lighter;

to show the number of ears distinctly, they are spread somewhat more than in nature.

WILLOW.

Salix Babylonica.—Plate 30.

THE shady trees cover him with their shadow, the *willows* of the brook compass him about.—*Job*, xl. 22.

By the rivers of Babylon, there we sat down; yea, we wept, when we remembered Zion.

We hanged our harps upon the *willows* in the midst thereof.—*Psalm* cxxxvii. 1, 2.

THIS elegant tree is a native of every part of the East, Palestine, Mesapotamia, and throughout all Europe, well known for its very rapid growth within a very short period of time, particularly in moist situa-

tions; it readily grows from slips or cuttings; and even should an old stump, not altogether decayed, lay on the earth, it will sprout forth twigs afresh.

The Jews made use of the branches of Willow, in erecting their tents at the Feast of tabernacles:

"And ye shall take you on the first day the boughs of goodly trees, branches of palm trees, and the boughs of thick trees, and Willows of the brook; and ye shall rejoice before the Lord your God seven days." *Leviticus*, xxiii. 40.

It seems also that Willows were very plentiful on the banks of the river Euphrates, and thereon the captive Hebrews hanged their harps; as useless to them in their distressed and mournful condition.

There are twenty-two indigenous species

of the Willow; but the limits of our work will only allow us to give a description of the *Salix Babylonica*, or Weeping Willow. This plant is chiefly cultivated in England for its beautifully ornamental appearance; it was originally introduced from the east, and flourishes best by the side of rivers and in moist situations. The Weeping Willow is a very picturesque tree; the shape of its leaf is conformable to the pensive character of its branches, which are still lighter than those of the Poplar, and more easily put in motion by every breath of air.

The very celebrated and admired weeping Willow planted by Pope at Twickenham, was sacrilegiously felled to the ground in 1801; it came enclosed as a present from

Spain to the late Lady Suffolk: Mr. Pope was in company when the covering was taken off; he observed that the pieces of stick appeared as if they had some vegetation; and added, "perhaps they may produce something we have not in England." Under this idea he planted it in his own garden, and it produced the Willow tree that has given birth to so many others.

We sincerely grieve to record the almost entire demolition of another far-famed Willow at Lichfield, the property of the very reverend the Dean. It was the delight of Johnson's early and waning life, (we use his own expression), and even still more so of Mrs. Seward's; the ornament and glory of the valley, the subject of every writer, the gratification of every

traveller; nearly half the tree fell to the ground in August 1834; the adjacent arms and branches fronting the city of Lichfield had all been swept away in the violent storms of Saturday, November 10th, 1810; so that little more now remains than the stupendous trunk, its green coronal, and a few side boughs.

It is to be regretted that the age of this majestic tree cannot be ascertained; Dr. Johnson said that he remembered its ample branches laying in the pool that then flowed to its base: this is considered to have been some time during the year of 1735.

The Willow tree has long been associated with feelings of melancholy and

disappointment, and has ever been a favourite subject with poets for descriptive effusions.

One of the most distinguished properties of the Willow is its flexibility; Virgil accordingly terms it *Lenta Salix*, the pliant Willow; from this quality, one of its principal economical uses, that of making basket-work, has always been deduced; the species of Willow which we call sallow, and in Ireland call the Sally tree, was probably the cheap material that composed the hospitable couch of Philemon, thus described by the poet:

"A couch there was with sedgy covering spread,
Shallow the feet, the borders, and the bed."

The principal species of Willow, are the Weeping Willow, the White Willow, and the Osier; which last being of a smaller growth, and the twigs more tough and pliant, wicker baskets are chiefly made of.

WORMWOOD.

Abisinthium Judaicum.—Plate 30.

THEREFORE thus saith the Lord of Hosts, the God of Israel, behold, I will feed them, even this people, with *wormwood*, and give them water of gall to drink.—*Jeremiah*, ix. 15.

THE bitter qualities of this nauseous plant are frequently alluded to in Scripture; it grew wild about the dry waste grounds of

Palestine, and with us is an indigenous, perennial plant, very common in all parts of England, and growing on dunghills, and waste and dry places; it has a ligneous and fibrous root, with stalks of an indeterminate height, branching out into many small shoots, with hoary leaves of a bitter taste, very powerful in smell, and furnished with spikes of naked flowers, hanging downwards, which are placed in long rows towards the top; the odour of the leaves is strong, and although some few may consider them fragrant, yet to most persons they are extremely nauseous and disagreeable. The flowerets are divided into five parts, at the top, and are of a yellow colour. Wormwood has always been consi-

dered a valuable plant for medicinal and other purposes.

Roman Wormwood differs much in appearance from the former; it has a great number of small and woody roots, full of fibres, and the stalks are about a cubit in height, which are round, smooth, and of a reddish green, or purple colour; they are full of leaves from the top to the bottom, which have much the same appearance as those of the Southernwood tree, only they are shorter; the flowers are much like those of the common Wormwood, but less; it is cultivated in gardens, and may be easily raised by the cutting and planting of slips in the spring and autumn. The roots of this plant creep so much, that they will

soon spread over a large piece of ground; it is not so bitter in taste as the common Wormwood, but is more aromatic, for which reason it is more agreeable to the taste; it has the same properties as the Wormwood, but in a slighter degree, and is therefore by many preferred on that account.

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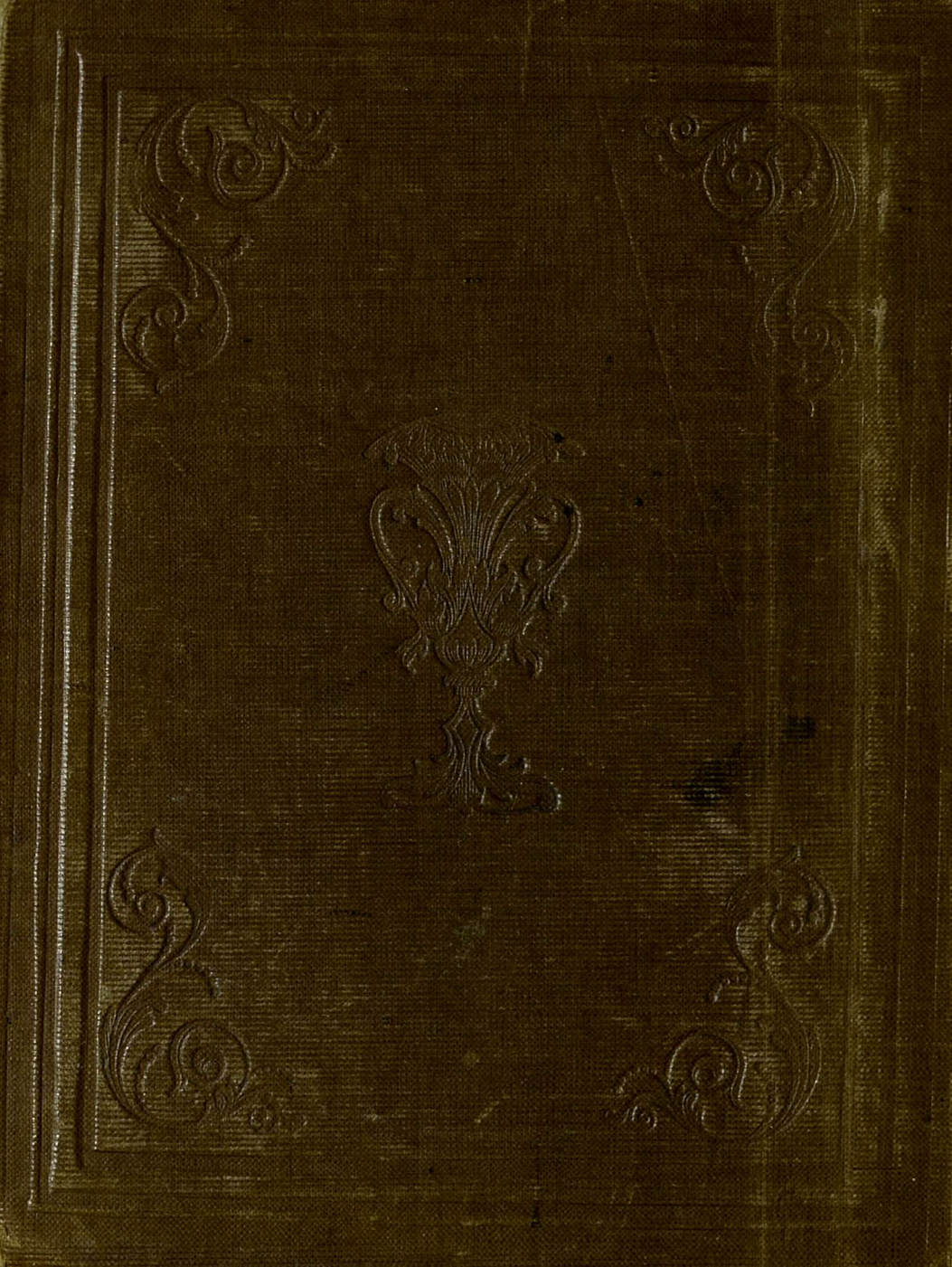
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