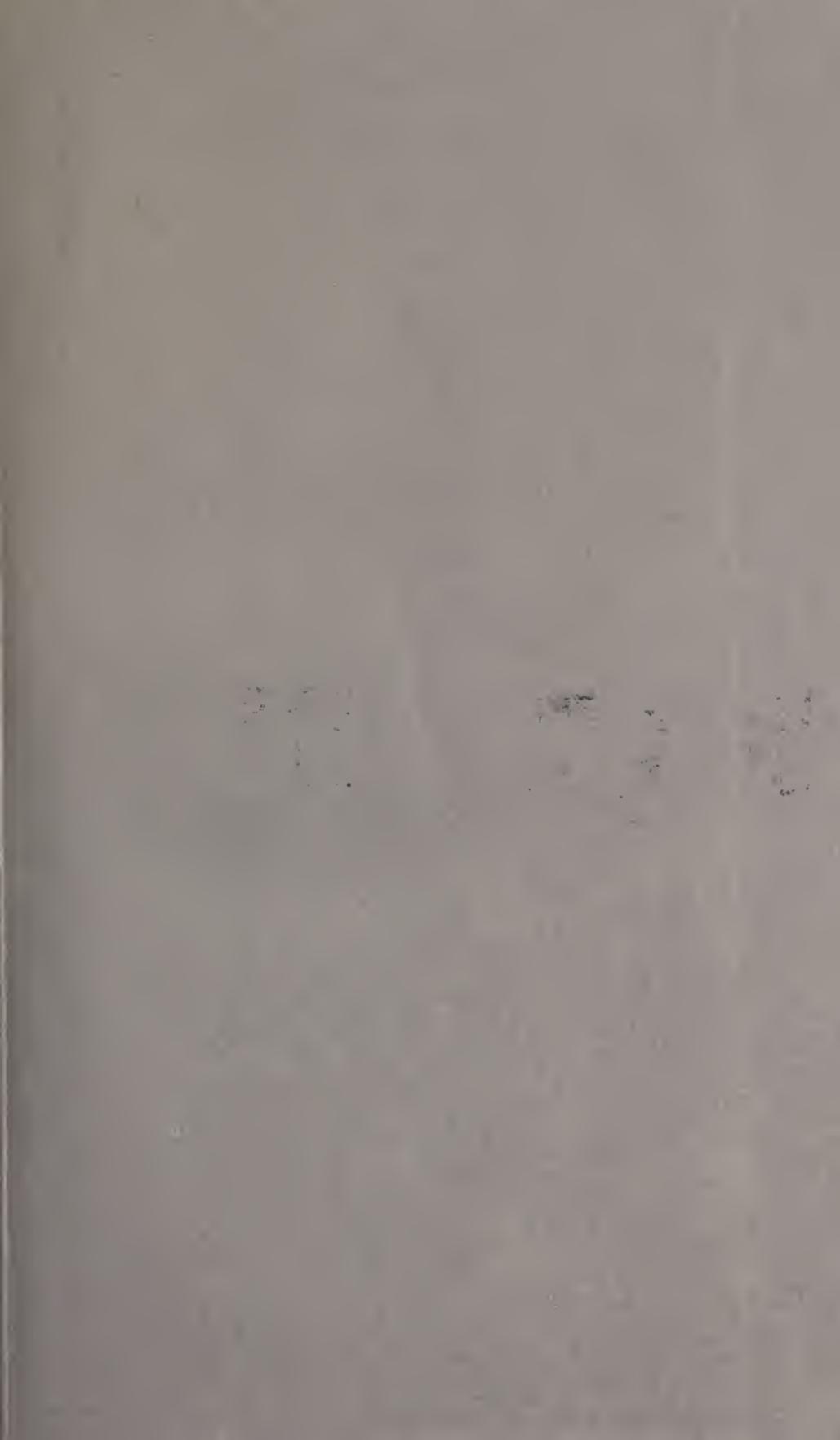


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POMARIUM BRITANNICUM

AN

HISTORICAL AND BOTANICAL ACCOUNT

OF

FRUITS

KNOWN IN GREAT BRITAIN

BY

HENRY PHILLIPS

I 10:

SECOND EDITION

Printed 1823

Δένδρα δ' ὑφιπέτηλα κατακρήθην χιέε καρπὸν,
Ὅρχαι καὶ ρόδιαι, καὶ μηλῖαι ἀγλαόκαρποι,
Συκαὶ τε γλυκεραὶ, καὶ ἐλαῖαι τηλεθώσται.

HOM ODYSSEY

"I have often been astonished at our indifference respecting the applause of those who have introduced useful plants into their country, the fruits of which are to this day so delightful. The names of these public benefactors are chiefly unknown, whilst their benefits pass from generation to generation: whereas, those of the destroyers of the human race are handed down to us in every page, as if we took more account of our enemies than our friends."

ST PIERRE

LONDON

PRINTED FOR T AND J ALLMAN

PRINCE'S STREET HANOVER SQUARE

1822

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TOMMYN
BRITANNIA

THE HISTORY OF THE

FRUIT

PLANT IN GREAT BRITAIN

HEAVY FRUIT

BY

JOHN HENRY
FRUIT

THE HISTORY OF THE FRUIT PLANT IN GREAT BRITAIN
BY JOHN HENRY FRUIT
FRUIT

FRUIT
FRUIT

TO THE
PRESIDENT,
VICE PRESIDENTS,
AND
FELLOWS
OF THE
HORTICULTURAL SOCIETY OF LONDON,

AS A SINCERE THOUGH SMALL

TESTIMONY OF HIS HIGH ESTEEM

FOR THIS

GREAT NATIONAL AND BENEFICIAL INSTITUTION,

THIS WORK

IS MOST RESPECTFULLY DEDICATED,

BY

THEIR MOST DEVOTED

AND

OBEDIENT SERVANT,

THE COMPILER.

REVISED
EDITION

THE HISTORY OF THE

REVOLUTION

OF

THE UNITED STATES OF AMERICA

BY

JOHN ADAMS

AND

JOHN QUINCY ADAMS

THE

REVOLUTION OF 1776

AND

THE

REVOLUTION

OF 1800

BY

PREFACE.

To the first historical account of fruits, which has been attempted in the English language, it may be expected that a Preface should be given. The Author would rather that his should be considered an apology for having undertaken so arduous a task, at a time when his utmost exertions were, from necessity, directed towards other objects. He is now induced to offer it to the world, not relying on his own ability so much as on the indulgence of the Public, to a work that has been finished under the most distressing family affliction.

It will be observed, that the work has been compiled more for general readers than for botanists or practical gardeners. The former, as well as the latter, will find abundance of books worthy their attention, but

which afford the greater part of society but little information, particularly those who have not enjoyed the advantage of a classical education, as Botany is not yet divested of it's Latin garments, although there is no reason why it should continue to be shackled in a dead language, when our own is so copious and so rapidly becoming the dialect of one half of the world. The ancients wrote their botanical and medicinal works in the language of their respective countries, whilst the writings of the moderns on these subjects are so disguised in ancient language, that few but professors thoroughly understand them, thus depriving those whom they intended to enlighten from obtaining information. For many centuries, the profession of the law was worded in a foreign tongue, and the prayers of the church were offered to the Almighty in a language little understood except by the clergy. These inconveniences have been remedied, and the Author hopes to see Medicine and Botany also dispossessed of their foreign

terms to the advantage of society in general.

By those who have made the history of fruits their study, it may be thought that the Author has added but little new information. This will be admitted, as he has not attempted to search for unknown fruits, or to relate anecdotes of them. His object has been to collect the earliest and best information on this interesting subject, and to bring it into a small focus, as the accounts of fruits have hitherto been scattered in voluminous works, of so great rarity and value, that none but those possessing extensive libraries could gratify their inquiries on this subject, and even then it was obtained at a great expense of time; nor would the Author have been able to have compiled this humble volume, but for the kindness of the late Sir Joseph Banks, and several other botanical friends, whose liberality allowed him access to their collections. He is also greatly indebted to many of the members of the Horticultural Society, particularly to several prac-

tical gardeners and nurserymen, whose attention to their profession has not only honoured and enriched themselves, but so benefited and beautified their country, that it has become, as far as nature and art can make it, the paradise of the terrestrial world.

The art of gardening is now so justly appreciated in this country, that the Author does not despair of seeing monuments of brass erected, by a generous public, to commemorate the memory of those neglected personages who first introduced the cultivation of the potatoe, and other useful vegetable productions into this kingdom. Even the brilliant talents of Ireland have not left a more lasting benefit to our sister country, than that man, who, braving the seas, procured for it the potatoe root. Our naval and military defenders are justly rewarded by the gratitude and the purse of the nation, and would gladly divide these honours with those that have made their country more worthy of defence.

The Author considers, among other blessings, that gardening has bestowed on the

City of London, that of it's being a preventive of pestilence and the plague, from the circumstance of it's making cleanliness a matter of profit in this immense metropolis, from whence the soil is so carefully removed to manure the ground occupied by gardeners in the environs, which are now calculated to exceed six thousand acres within twelve miles of London, that are constantly cultivated for the supply of the markets with fruit and vegetables.

Stevenson informs us, that 3,500 acres of ground in Surry alone are employed as market gardens; and Middleton observes, that from Kensington to Twickenham, the land on both sides of the road for seven miles composes the great fruit gardens, north of the Thames, for the supply of the London market. It is gratifying to see the number of hands this ground employs. Even during the six winter months, it is computed that it affords work to five persons an acre, and at least double that number for the summer months, who are principally females; and if we add porters, hawkers, &c. it will be

found to treble the amount, making the number exceed ninety thousand persons, who are in the summer months daily employed by the gardeners, within a circle of ten or twelve miles around London.

The Author of the *Pomarium Britannicum* laid the foundation of his work from historical researches, which he has since endeavoured to make more complete, by selections from Natural History and Botany. It will be observed, that he has referred to Pliny oftener than to any other ancient author; but those who have studied this writer's Natural History, will acknowledge, that he has given more accurate accounts of fruit, than is contained in all the other ancient works together. Gerard was the first English author that wrote largely on fruits and plants; and, as it was at the period when Horticulture first began to be studied in this country, his work also afforded much information. The author is much indebted to the reports of the Horticultural Society, whose liberality is as justly admired, as their prosperity is earnestly wished for.

It is hoped that no part of this work will be found objectionable, as the principal study of the Compiler] has been to render it acceptable to all classes, and to fulfil his engagement with his liberal friends and patronisers, to the utmost of his ability. Should it meet with an encouragement to demand an enlargement, he will consider it the proudest day of his life, when he sets about correcting and improving his first work: to make it more worthy attention, on this account, he solicits from the Public such information as may have escaped his notice.

It is hoped that no part of the year
will be found unprofitable, as the principal
study of the [unintelligible] has been to verify
it according to the laws, and to find the
agreement with the liberal [unintelligible] and the
[unintelligible] to the extent of his ability. Should
it meet with an encouragement to demand
an enlargement, he will consider it the
brightest day of his life, when he sets about
every thing and pursuing his first work: to
[unintelligible] it more worthy attention, on this ac-
count, he writes from the British [unintelligible] in-
formation as may have escaped his notice.

INTRODUCTION.

It is now universally allowed, that no country ever attained to such eminence, either in commerce or the arts, as the British nation has at present.

As the mind has become more enlightened, the taste of course has become more pure; whence it is no wonder that man in this island has now so much directed his attention to an employment which the Almighty deemed best adapted for his happiness in the creation of the world: “And the Lord took the man, and put him into the garden of Eden, to dress it, and to keep it.”

No people of old, in their greatest prosperity, ever ceased to cultivate and honour this useful pursuit, which, far from being considered a mean and vulgar study, commanded the attention of kings themselves. Of Solomon it is written, that “he made cedars to be as the sycamore trees that are in the

vale for abundance," and that he wrote a history of all the plants, from the cedar of Libanus to the moss growing on the wall.

The Chinese have ever been celebrated for their attention to horticultural pursuits. A peasant, whose garden or fields are cultivated with the most care, is rewarded by being made a mandarin of his class.

Among the Persians, horticulture was most strictly attended to, if we may trust the authority of Xenophon, who states that Cyrus the Younger was accustomed to inform himself, whether the private gardens of his subjects were well kept, and yielded a plenty of fruit; that he rewarded the superintendants or overseers whose provinces were the best cultivated; and punished those who did not labour, and improve their grounds. I will not here omit the just compliment of Lysander to this monarch, who was telling him that many of the trees they were looking at had been planted by himself. The Lacedæmonian observed, "That the world had reason to extol the happiness of Cyrus, whose virtue was as eminent as his fortune, and who in the midst of the greatest affluence, splendor, and magnificence, had yet preserved a taste so pure, and so conformable to right reason."

Socrates makes this noble encomium upon agriculture: "It is," says he, "an employment the most worthy of the application of man, the most ancient, and the most suitable to his nature; it is the common nurse of all persons, in every age and condition of life; it is the source of health, strength, plenty, riches, and of a thousand sober delights and honest pleasures; it is the mistress and school of sobriety, temperance, justice, religion, and in short of all virtues, both civil and military."

To prove in what estimation among the ancients they were held who encouraged or improved this art, it will be only necessary to attend to what is stated by Plutarch, who says that Ceres and Bacchus were mortals that were deified for having given to men immortal blessings, by bestowing on them the knowledge of raising fruits. At Rome especially, during the Commonwealth, the greatest generals, consuls, and dictators, with the same victorious hands that overthrew the enemies of their state in war, turned up the earth in time of peace.

Pompey and Vespasian bore in their triumphs trees which they had procured from the conquered nations, as monuments more durable and useful than those of brass or

marble ; and long before their time, after the sacking of Carthage, the Senate reserved from the libraries of that great city only twenty-eight volumes, (the writings of Mago on Husbandry,) which they caused to be translated into the Latin language, notwithstanding Cato had so lately written on the same subject.

As soon as they had in some sort made themselves masters of Britain, the Romans began to clear the forests, and encourage agriculture, which in this country was but little attended to, except upon the coast ; and at that period the island possessed but few fruits, which for want of proper culture must have been very inferior in quality.

As the Romans made a practice of conveying to their native country the natural productions of the conquered nations, and cultivating them with such care as to make them flourish as though indigenous to the climate, it is probable that, after the fall of their empire, the Crusaders, who often made that part of the world a rendezvous, observed and acquired a relish for many of those rarities, and brought back to their homes, not only new fruits, but those of their native soil in an improved state. After this, the intercourse of the priests with Rome

perhaps served to introduce other fruits, as the Catholic religion, enjoining frequent abstinence from animal food, must have made the possession of fruits more desirable.

But it was during the reigns of Henry the Eighth and Elizabeth, that the most valuable fruits were introduced into this country, for at that time the desire of discovery pervading England, many fruits, plants, and vegetables, hitherto unknown, were brought to this island from the new world. At that period so little does horticulture seem to have advanced, that Elizabeth was obliged to procure her salads from Holland; and, according to Fuller, green pease were seldom seen except from that country. "These," says he, "were dainties for ladies—they came so far and cost so dear."

About the commencement of the seventeenth century, Tusser, Gerard, Bacon, and others, turned their attention to natural history and the cultivation of useful and ornamental plants. After them, Linnæus altering and enlarging the foundation upon which former naturalists had built, raised that system which will remain as long as science, time, and natural productions shall last.

Since this, there has been kept up a con-

tinued search for every kind of tree, shrub, and herb, that could either please the eye, gratify the taste, or contribute to the advantage of medicine; the hottest and the coldest climates have been explored; and those plants that, for want of a warmer sun, would not flourish naturally in this country, have had an artificial clime and temperature furnished to them. Our cottage walls are now covered with the roses of China; our gardens with the flowers of Persia; and even the woods ornamented with the spiral blossoms of the Asiatic chesnut: in short, the various plants of all the world have been introduced to beautify our happy land; and with such success, as to render it difficult sometimes to say, which are natives, and which are not.

The Agricultural Society has succeeded in improving our farms, the very meadows of which are clothed anew: this produces the grass of the Italian fields, and that the pasture of the Netherlands: the chalky hills wave with corn, our marshes are no longer stagnated, and famine, which formerly succeeded an unfavourable season, seems no longer to be dreaded.

The Horticultural Society was established in the year 1809, in order to give further

encouragement to this art, and to extend the best possible system of it to every part of the kingdom. By means of this company, what is discovered in one place, may be sent post as it were to others, through the remotest corners of the dominions, without travelling as before, by ages. Besides this advantage, individuals have sent out men of science to every quarter of the known world in search of plants; which have since been so diversified and multiplied, as to make it almost difficult to discover more varieties.

The author has ascertained, by the assistance of the Hortus Kewensis, that since the discovery of the new world, we have produced 2,345 varieties of trees and plants from America, and upwards of 1,700 from the Cape of Good Hope, in addition to many thousands which have been brought from China, the East Indies, New Holland, various parts of Africa, Asia, and Europe, until the list of plants now cultivated in this country exceeds 120,000 varieties.

But flowers have principally engaged the care and study of students in horticulture and botany, while fruits have been in comparison rather too much neglected, though of the two the latter are intrinsically the most valuable, for since the more frequent

use of fruits and vegetables in this country, many dreadful diseases, as the leprosy, &c. are no longer prevalent, or have lost their baneful effects.

Induced by these reflections, the author endeavoured to discover to whom we are indebted for such comforts and advantages; in doing which, he met with considerable difficulty, for modern historians are silent on the subject, though they often dwell long on others not really so interesting; and the few works in our language on this head, are either too expensive or strictly botanical for general readers. However, encouraged by the observation of Sir Joseph Banks, that “Every anecdote that tends to throw light on the introduction, or on the probable origin of plants now collected for use, is interesting, even though it is not quite perfect,” he continued his researches till he was flattered that the work, originally intended only as a private instruction for his family, might, with care, become worthy the perusal of the public, and enable him to make further inquiries and discoveries, which has emboldened him to send it forth to the world.

It has been the compiler's wish and endeavour to render the work a History of

Fruits, that may not only be read through, but referred to, with some amusement; in it to blend entertainment with useful information, as much as the subject would allow; to combine and compare the accounts of the ancients with those of the moderns which are more improved; and, in short, to treat on each species of fruit generally; for to have descended into varieties, would have filled volumes with names alone, since he finds one individual possessing 400 kinds of strawberries, and others as great a variety of gooseberries, while the kinds of apples, pears, plums, &c. have been still more numerously multiplied.

And kinds are less material to *his* theme;
 Which who would learn, as soon may tell the sands
 Driv'n by the western wind on Libyan lands,
 Or number, when the blust'ring Eurus roars,
 The billows beating on Ionian shores.

Dryden's Virgil.

A C O R N . — G L A N S .

THE OAK TREE.—*QUERCUS*.

In Botany, of the Monoecia Polyandria Class.

THE acorn, which is the fruit or nut of the oak tree, was the food of the ancient Britons, and particularly of the Druids, who, says the historian, lived in caves and hollow trees; their food was acorns and berries, and their drink, water. The name of Druid seems to be taken from the Greek word *δρῦς*, an oak. They thought whatever grew on the oak was sent from heaven, and nothing was held so sacred by them as the mistletoe of an oak; and they believed it to be the favourite tree of the Deity.

Content with food, which nature freely bred,
On wildings and on strawberries they fed;
Cornels and bramble-berries gave the rest,
And falling acorns furnished out a feast.—*Ovid*.

Acorns were not the food of the Britons only. The inhabitants of Chios (in ancient times) held out a long siege, having no other food but acorns.

Acorns are eaten to this day in Spain, where they long remained a delicacy at the desserts. Cervantes often mentions them in his *Don Quixote*; but the Spanish acorns are certainly of a sweeter nature than those of England.

In times of scarcity and dearth of corn, they have been ground and baked into bread, both in this country and in France; but the taste of it is rough and disagreeable, and indeed acorns are said to be hard of digestion, and to cause head-aches and flatulence.

The study of botany, and the encouragement given to agricultural and horticultural pursuits, have so wonderfully improved the state of this country, that what in early ages a king would have feasted on, the beggar now refuses; and the acorn is scarcely known as affording nourishment to the human species, even among the wandering vagrants who pitch their tattered tents, and cook their scanty fare beneath the branches of the trees that produce them.

Should there remain any persons so ignorantly obstinate, as to exclaim against the

study of botany as useless and uninteresting, let their plentiful desserts be furnished with a scanty supply of acorns, and their wine be exchanged for the beverage of their forefathers; and soon would they join in the praise of this science, and of all those who have given their time and talent to improve the health, and add to the luxuries of man, by this interesting and beneficial study, which, next to astronomy, carries our thoughts to heaven, and causes us to join the Psalmist in his exclamation, "O Lord, how wonderful are thy works, in wisdom hast thou made them all."

Before the Conquest, the wealds of Sussex (which is the largest valley in Europe) were one continued forest from Hampshire to Kent, principally of oak trees, that were only valued for the number of swine which the acorns maintained.

Acorns are but little used at present, except to fatten hogs and deer; they are sometimes given to poultry, and would be found an advantageous food for fowls, were they dried and ground into meal.

In medicine, a decoction of acorns is reputed good against dysenteries and colics. Pliny states, that acorns beaten to powder, and mixed with hog's lard and salt, heal

all hard swellings, and cancerous ulcers; and when reduced into a liniment, and applied, stay the bloody flux.

Every part of the oak is styptic, binding, and useful in all kinds of fluxes and bleedings, either inwardly or outwardly; the bark is frequently used in gargarisms, for the relaxation of the uvula, and for sore mouths and throats. An extract made from the bark is said by some to be equal to the Peruvian bark.—*Chambers*.

The gall nuts of the oak, are of many kinds, but they have all the same medicinal virtue. I learn from Pliny that they were used by the Romans to colour their hair black.

John Ellis, Esq. discovered that acorns can be preserved in a state fit for vegetation for a whole year, by enveloping them in bees wax: other seeds may be conveyed from distant countries, by the same means.

The ancients thought, that of all trees, the oak was made first; and that among men, the Arcadians were born first; and that is the reason why they were compared to the oak.

It seems that in ancient times, the oak tree was not venerated by the Heathens only, as it appears there were oak trees in the

temple of the true God, for the Bible in-^{no. 2}forms us that Joshua "wrote the command-ments and the precepts of the Lord, in the book of the law, and that he took a very great stone, which he put under an oak, which was in the sanctuary of the Lord."

In the Valley of Mamre, which was in the beautiful country of the tribe of Judea, where Abraham was visited by the angels who announced to him the birth of Isaac, stood an oak, that became celebrated as the tree under which Abraham often went to repose and refresh himself. Bayle says, that this oak was said to have existed under the emperor Constantius.

It was an oak that caused the death of the son of David in the battle of the wood of Ephraïm: "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."

A periwig-maker in the town of Lewes, in Sussex, made use of this story to recommend the sale of false hair. He had a sign painted on the front of his shop, representing the rebellious son of David hanging in the

oak by the hair of his head, with this whimsical couplet below:

O Absalom! unhappy sprig,
Thou should'st have worn a periwig.

It was an oak-tree also which cost Milo of Crotona, the most celebrated wrestler of Greece, and who was always the conqueror in the games, his life. He possessed prodigious strength. It is related that he held a pomegranate in his hand so firmly, without smashing or hurting the fruit, that no person could open his fingers strait, so as to take it from him. He would put his naked foot on a quoit, greased with oil, and whatever effort was made, it was impossible to shake him. His confidence in his (almost supernatural) strength was fatal to him, for having once found in his way an old oak-tree, nearly opened by wedges, which had been forced by the hatchet and hammer, he undertook to finish the felling of it, by the power of his arms alone; but in the effort he undid the wedges, and his hands were caught by the two parts of the oak, which joining together again, he was unable to liberate himself, and was devoured by the wolves.

The famous forest of Dodona, in Epirus,

consisted of oaks that were consecrated to Jupiter: this was one of the most ancient oracles of which we have any particular account. Herodotus gives two accounts of the rise of this oracle, one of which clears up the mystery of the fable, *viz.* that some Phœnician merchants carried off a priestess of Thebes into Greece, where she took up her residence in the forest of Dodona, and there, at the foot of an old oak, erected a small chapel in honour of Jupiter, whose priestess she had been at Thebes; and this was the first temple that was ever seen in Greece. Suidas informs us that the answer was given by an oak. Homer has also delivered the same account; and as it was generally believed to proceed from the trunk, it is easy to conceive that the priestess had nothing more to do than to hide herself in the hollow of this oak, and from thence to give the pretended sense of the oracle, for the distance the suppliants were obliged to keep was an effectual means to prevent the cheat from being discovered. During the war between the Thracians and Bœotians, the latter sent deputies to consult this oracle of Dodona, when the priestess gave them this answer, of which she doubtless did not foresee the consequence, “If you would

meet with success, you must be guilty of some impious action." The deputies suspecting that she prevaricated with them in order to serve their enemies, from whom she was descended, resolved to fulfil the decree of the oracle; and therefore seized the priestess and burnt her alive, alleging, that this act was justifiable in whatever light it was considered; that if she intended to deceive them, it was fit she should be punished for the deceit; or, if she was sincere, they had only literally fulfilled the sense of the oracle.

On Mount Lycæus, in Arcadia, was a temple of Jupiter with a fountain: when rain was wanted, it was thought that it would be obtained of the god by throwing in the fountain a branch of the oak-tree.

Socrates swore by the oak, perhaps because this tree was consecrated to Jupiter.

There was an oak near Priene, a city of Ionia, near which a thousand Samians were killed by the Priennians. From thence came the custom that the women of Priene had to swear by the darkness of the oak, because they had lost, in this place, their fathers, their husbands, and their sons.

The veneration that the ancients had for the oak, gave rise to the Greek and Latin

proverb, "Speak to the oak;" which signified, speak in good security. They had also another proverb on the oak: when they spoke of persons they did not know the birth of, it was said they were born of an oak, because the ancients often exposed children in the hollow of trees.

Lucan compares Pompey to an old oak, hung with superb trophies.

The oak is a tree of slow growth, requiring a century before it will arrive to its full perfection. Pliny, in his Natural History, states, that hard by the city of Ilium, there were oaks near the tomb of Ilius, which were planted from acorns when Troy was first called Ilium. He also says, "the great forest Hercynia is full of large oaks, that have never been topped or loppéd." "It is supposed," adds this naturalist, "that they have been there since the creation of the world, and (in regard to their immortality) surmounting all miracles whatever. The roots of these trees run and spread so far within the ground that they meet each other, in which encounter they make such resistance, that they swell and rise upwards to a great height, in the form of arches." In some instances, he says, they were so high and so large that a

whole troop of horsemen could ride upright through these natural portals, in order of battle.

Linnæus mentions fourteen species of the oak-tree; Miller extended them to twenty; and Aiton describes forty-five varieties of this tree. The most common of the English oak produces the acorns close to the branches, without any stalk; but the most esteemed for ship building is found growing in the Wealds of Sussex and Kent; and this tree often produces its acorns with foot stalks as long as the cherry stalk. Young says, "Oak is the staple commodity of Sussex, which, from the remotest antiquity, has been celebrated for the growth of oak; it is estimated that not less than from 170 or 180,000 acres are occupied by this timber, the quality of which is acknowledged by navy contractors preferring, and in all their agreements stipulating for, Sussex oak. This author adds, that the soil is so naturally adapted to the growth of oak, that if a field were sown with furze only, and the cattle kept out, the ground would, in a few years, be covered with young oaks, without trouble or expense of planting.

Although the late long war has, in some

degree, thinned this country of oak-trees, still we have many oaks left of extraordinary great age and bulk, and

————— the sturdy oak,
 A prince's refuge once, th' eternal guard
 Of England's throne, by sweating peasants fell'd,
 Stems the vast main, and bears tremendous war
 To distant nations, or with sov'reign sway
 Awes the divided world to peace and love.

Phillips.

The celebrated oak in Hainault Forest, Essex, known by the name of Fairlop, is thus mentioned by the late Rev. Mr. Gilpin: "The tradition of the country," says this ingenious writer, "traces it half way up the christian era. It is still a noble tree, though it has suffered greatly from the depredations of time. About a yard from the ground, where its rough fluted stem is thirty-six feet in circumference, it divides into eleven vast arms, which overspread an area of three hundred feet in circuit: beneath this shade an annual fair has long been held on the 2d of July; but no booth is suffered to be erected beyond the extent of its boughs."

In Bloomfield wood, near Ludlow, in Shropshire, is an oak-tree belonging to Lord Powis, the trunk of which, in 1765, measured sixty-eight feet in girth, thirty-two in length,

and which, reckoning ninety feet for the larger branches, contained in the whole 1,455 feet of timber, round measure, or twenty-nine loads and five feet, at fifty feet to a load.

In the vale of Gloucestershire, near the turnpike road between Cheltenham and Tewksbury, stands the Baddington oak, the stem of whose trunk is fifty-four feet, and some of its branches extend to eight yards from the body of the tree.

The famous oak, *Robur Britannicum*, in Lord Norrey's Park, at Prescot, was computed to be able to shelter between three and four thousand men. Dr. Plot, in his Oxfordshire, tells us of an oak near Clifton, that spread eighty-one feet from bough-end to bough-end, and shaded 560 square yards.

In Worksop Park, the Duke of Norfolk had an oak which spread almost 3,000 square yards, and near 1,000 horse might stand under the shade.

I have been favoured with the particular dimensions of the large oak that was felled on the Gelin's estate, in the parish of Bassaley, and within four miles of the town of Newport, in the county of Monmouth, in 1810, as communicated by the Earl of Stamford to Sir Joseph Banks.

Body of the tree, ten feet long	-	-	450 ft.
Twelve limbs and collateral parts, contained			1850
Dead limbs	-	-	126
			<hr/>
			2426 ft. or

48 loads and 26 ft. — Quantity of bark, 65 cwt.
and 16 stacks of wood.

Four men were three weeks and two days in felling and stripping the tree. There were 85 pieces of square or hewn timber: the squarers were three weeks and four days in squaring it. One pair of sawyers had been five months in sawing the tree, and had not finished when this account was sent. (Mar. 6th, 1811.)

The tree was purchased by Mr. Thomas Harrison for one hundred guineas.

Part of an oak-tree, twenty-feet in circumference, was drawn out of the Thames in September, 1815, near the Ferry at Twickenham, with great difficulty, by twenty-four horses: it is known to have laid in the river one hundred and fifty years.

The timber of the oak-tree is so well known, and so justly esteemed, for a variety of purposes, that it would be superfluous to state the whole of them.

In building ships of war, one great advantage is, that it seldom splinters, which caused foreigners to attribute our naval vic-

tories to the excellency of our timber; but the late war has given so many proofs of our defeating our enemies with ships of their own building, that they must now acknowledge that the bravery of a British sailor is as firm as the heart of an English oak.

It was not until we had manufactured into furniture all the curious woods of the New World, that the transcendent splendor of the English oak was brought to any degree of perfection by the late Mr. Bullock, of Tenterden-street, and other eminent cabinet-makers. Mr. Penning, of Holles-street, Cavendish-square, who I am informed has been the most successful in the choice of this wood, has lately wrought up some old oak-trees of such matchless beauty, that one set of dining-tables brought him the unheard-of price of six hundred pounds. This far exceeds any thing of the kind we read of, even in the luxurious days of the Romans, although Pliny says, "Our wives at home twit us, their husbands, for our expensive tables, when we seem to find fault with their costly pearls."

"There is at this day to be seen," says this author, "a board of citron wood, belonging formerly to M. Tullius Cicero, which cost him ten thousand sesterces; a strange cir-

cumstance, as he was not rich." He also mentions a table that belonged to Gallus Asinius, which sold for eleven thousand sesterces, which is about equal to £70 of our money; and he particularizes a table of citron-wood that came from Ptolemæus, king of Mauritania, which was made in two demi-rounds, or half circles, joined together so cleverly, that the joints could not be discovered: the diameter of it was four feet and a half, and three inches in thickness. It is related that they set great store on woods of curious grains: some there are mentioned with curling veins, which were called *tigrinæ* (tiger tables); others, *panthernæ* (panther); and some are described waved like the sea, and spotted like the peacock's tail. But those of the highest value were of the colour of honey-wine, with shining and glittering veins, or lamprey-veined, running across.

I have ventured to make this digression, having seen within these last few years oak of such various grains, that out of them the whole of the above-mentioned, and many other curious representations, might have been selected.

The bark of the oak-tree is a most valuable article for the purpose of tanning; and it is by the aid of this bark, that our English

gardeners are able to supply us with pine-apples, and other fruits peculiar to the hottest climates.

The oak principally used for wainscot, &c., is brought from Dantzic and Norway.

The evergreen oak (*ilex*) is a native of the south of Europe, and is planted merely to ornament our gardens and plantations: this variety was introduced into England in 1581, and is found to grow in great perfection on the banks of the Thames, west of London. There is an oak of this description in the grounds belonging to the Bishop of London's palace at Fulham, more than fifty feet high, and eight feet in circumference. I conclude it was planted by Bishop Compton, who introduced many new plants and forest trees from North America and other parts of the world.

APRICOT.—ARMENIACA;

Or, PRÆCOCIA MALA.

In Botany, of the Class Icosandria Monogynia.

THE apricot has long been considered, and in most botanical works stated, to be a native of Epirus; and the name of *pruneus Armeniaca* having been given to it in mistake, and which I shall shew belonged to another fruit, it has been transmitted down from one author to another, without particular inquiry. Theophrastus, one of the oldest authors, never mentions the apricot-tree as being cultivated in Greece, at the time when he lived: on the contrary, he alludes to it as an exotic, from an account transmitted to him: he also mentions the almond, as being the only tree in his country which produced the flowers before the leaves. (*Theoph. Hist. Plant. lib. vii. c. 12.*)

Columella is the oldest Roman author who has mentioned the tree that has been considered the apricot. He writes, that at the end of January we may graft the cherry-tree, the Armenian plum, the nectarine, the almond, the peach-tree, and others which plush early.

Pliny also mentions the Armenian plum ; and says there is a plum, a kind of apricot, brought from a foreign nation, and which is called *Armeniaca*, and is desirable for its smell. This great naturalist has particularly mentioned the apricot, as distinct from the Armenian plum : he states that it was not known above thirty years before he wrote the account, which would make its introduction into Italy about the sixtieth year of the Christian era. Pliny says, “ at its first coming, each sold for a Roman denier :” he adds, “ this fruit is harmless, and is in such request among invalids, that thirty sesterces are given for one of them, which is as great a price as is given for any fruit whatever.” “ We have,” continues he, “ two sorts, *supernatia*, which we have from the high countries, and, namely, the Sabines ; and *popularia*, which grow common every where.” Thus Pliny has furnished us with an account of the apricot, and omitted to mention from whence it was first procured.

M. L. Legnier has made some remarks on this subject, which appeared in the French Encyclopédie, for November, 1815. Here he says, "I was struck with its mode of growth in Egypt, where it was anciently brought from latitudes still more southern. In Egypt its leaves have scarcely fallen off before the blossoms appear again. The name of *berikoh* first given to it even in Greece, approaches very near to its Arabian name of *berikach*, or *berikach*." M. L. Legnier adds, "that the inhabitants of the Deserts called Oasis, gather and dry large quantities of apricots, which they bring down to Egypt for sale; and they are there called *michmich*." "The result of every inquiry I made," says this author, "was, that the apricot-tree grows there spontaneously, almost without cultivation; and as it is not known to grow in the natural state in any part of Armenia, we may very justly conclude that it is an Arabian fruit."

The apricot-tree was first brought to England from Italy, in the year 1524, by Woolf, gardener of Henry the Eighth, who it appears introduced several valuable fruits about the same period. (*Gough's British Topography, vol. i. page 133.*)

We have now considerable varieties of this agreeable fruit, many of which, by their

names, inform us from whence they were procured, as the Alger, the Roman, the Turkey, the Brede, and the Brussels apricot, besides the Muscadine, the Orange, and several new varieties. It is one of our earliest wall-fruits, as well as one in the highest est-plush ear:

The young fruit which is gathered to thin at the ayop, makes an excellent tart; and, when ripe, it is second to no fruit for preserves or jam.

The apricot-tree produces its blossom buds not only on the last year's wood, but also on the curzons, or spurs, from the two years' old wood. Great care should be used, in pruning, not to injure them; and it is advisable to remove all foreright shoots in the growing time.

The Brussels apricot is the best as a standard tree: they are all propagated, by grafting them on plum stocks.

Madame de Genlis relates the following anecdote, which cannot be translated so as to retain the wit, which depends on the agreement of the French name for apricot-tree with the inscription alluded to.

Après la mort de Louis XIze, au commencement de la régence de Madame de Beaujeu, plusieurs personnes furent disgr-

ciées ; entre autres, Cotier, premier medecin du feu roi, qui s'applaudissant d'être échappé de cette cour orageuse, fit sculpter sur la porte de sa maison un abricotier avec cette inscription :

A l'abri, Cotier.

ALMOND.—AMYGDALUS.

The Name of a Genus of Trees, of the Icosandria Monogynia Class.

THAT the almond-tree is a native of Syria and Arabia, we have the authority of the earliest writers.

Jacob mentions almonds among the best fruits of the land of Canaan, when he says to his sons, "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." By the miracle of Aaron's rod, we learn that this tree was growing in the wilderness—"the rod of Aaron for the house of Levi was budded, and brought forth buds, and blossomed blossoms, and yielded almonds." The Israelites did not use the same ornamental statuary that adorned the heathen temples, but copied the fruits and flowers

of their country, where they admitted embellishment. The almond was selected to beautify the candlesticks for the tabernacle, which were made of pure gold, of beaten work: "Three bowls made after the fashion of almonds in one branch, a knop and a flower: and three bowls made like almonds in another branch, a knop and a flower; so throughout the six branches going out of the candlestick. And in the six candlesticks were four bowls made like almonds, his knops, and his flowers."

Theophrastus, who wrote about 300 years before Christ, mentions the almond as the only tree in Greece that produced the blossoms before the leaves. Servius relates the traditionary tale of Phyllis's being changed by the gods into an almond-tree, which was called *phylla* by the Greeks. Some days after this metamorphosis, Demophoon her lover revisited Thrace, of which Phyllis was queen: and when he heard of the fate of Phyllis, he ran and clasped the tree, which, though at that time stripped of its leaves, suddenly shot forth and blossomed, as if still sensible of his tenderness and love.

The almond tree was not cultivated in Italy in the time of Cato, who calls the fruit, *nucæ Græcæ*, or Greek nuts.

The Jordan almond-tree was first planted in England, in the reign of Henry the Eighth, 1548 (*Hortus Kewensis*). Lord Bacon, whose Natural History was written some years after this time, mentions it among the trees that blossom earliest, and whose fruit ripens latest: and which he accounts for as being a tree that hath much oily moisture. He recommends almond butter as an excellent nourisher to those that are weak; as also the oil of almonds, newly drawn, with sugar and a little spice, spread upon toasted bread, as a nourishing diet.

The Jordan almonds are the most esteemed for the table, and are named after the river Jordan, so celebrated in the Old Testament, and from whence they were first procured: these almonds, when taken in moderation, are wholesome, being cooling, healing, emollient, and nutritive: they are much prescribed in emulsions, and are found of good effect in all disorders from choleric and acrimonious humours.

The oil of almonds is principally drawn from the Valentian and Barbary almonds, and is well known for its medicinal qualities.

Bitter almonds were considered by the ancients as of use to take off drunkenness. Plutarch relates that Drusus's physician,

who was a great drinker, took at every cup five bitter almonds, to allay the heat and fumes of the wine. The bitter almonds are held aperient, detersive, and diuretic; they are therefore recommended in obstructions of the liver, spleen, &c. Pliny states, that a decoction of the roots of the bitter almond-tree supple the skin, prevents wrinkles, and gives a fresh, cheerful colour to the countenance; and that bitter almonds cause sleep, and create appetite. They were considered a cure for chilblains, as well as the bite of a mad dog.

Neumann states, that these almonds are poisonous to birds, and all animals that come into the world blind. The Bohemians are said to bruise them, and to throw them where fowls frequent, which will stupify those that eat them, so that they are easily taken by the hand. The bitter almonds are more generally used for culinary purposes, and for flavouring cordials, &c.

As an ornamental tree, the almond deserves to be more generally cultivated in our shrubberies, and particularly as a foreground to clumps of evergreens in parks and plantations, which have a sombre appearance towards the spring, that would be much relieved by the beautiful pink flowers of the almond-

tree, that give a gaiety to the plantations in March and April, a season when no other trees are in blossom. In favourable seasons, the fruit often comes to good perfection in this country; but these almonds will not keep so well as those produced in warmer climates.

APPLE-TREE.—MALUS.

In Botany, a Species of the Pyrus, belonging to the Genus of Icosandria Pentagynia.

THAT the apple-tree is a native of the Eastern part of the world, we have the authority of the earliest writers, both in the Sacred History, as well as by the information given by the naturalists of ancient Greece and Rome. The Prophet Joel, where he declareth the destruction of the fruits of the earth by a long drought, mentions the fruits which were held in estimation, and among them he names the apple-tree.

“The Greeks call them *medica*,” says Pliny, “after the country from whence they were first brought in old times.” Others were called *epirotica*, from Epirus, their native country; and that these were the same species of fruit that we call apples at this time, there can be no doubt; as they are

described in Pliny's Natural History as a fruit that hath a tender skin to be pared off; and he mentions crabs and wildings as being smaller; "and for their harsh sourness, they have," says he, "many a foul word and shrewd curse given them."

Apple-trees, from the earliest accounts, seem to have required the fostering care of man. Of all the fruit-trees in Italy, Pliny says the apple is the tenderest, and least able to bear heat or cold, particularly the early kind that produces the sweet Jennitings. For a long time the apple-tree was of the highest value among fruit-trees with the Romans: "there are many apple-trees," says Pliny, "in the villages near Rome that let for the yearly sum of 2,000 sesterces," which is equal to £12. 10s. of our money; "and some of them," says this author, "yield more profit to the owner than a small farm, and which brought about the invention of grafting. There are apples that have ennobled the countries from whence they came; and many apples have immortalized their first founders and inventors. Our best apples," continues he, "will honour the first grafters for ever; such as took their names from Matius, Cestius, Manlius, and Claudius." Pliny particularizes the quince apples, that came from

a quince grafted upon an apple stock, which he says, smell like the quince, and were called Appiana, after Appius, who was of the Claudian House, and who was the first that practised this grafting. "Some apples," says Pliny, "are so red that they resemble blood, which is caused by their being at first grafted upon a mulberry stock;" but of all the apples he has mentioned, he says the one which took its name from Petisius, who reared it in his time, was the most excellent for eating, both on account of its sweetness and agreeable flavour. He mentions nine-and-twenty kinds of apples as being cultivated in Italy at about the commencement of the Christian era. The grafting of trees was carried to its greatest extent about this time. "I have seen," says Pliny, "near to Thuliæ, in the Tyburtines country, a tree grafted and laden with all manner of fruits, one bough bearing nuts, another berries; here hung grapes, there figs; in one part you might see pears, in another pomegranates; and, to conclude, no kind of apple or other fruit but there it was to be found: but this tree did not live long." Modern grafters will condemn this account as fabulous or exaggerated; but what reason can we have to doubt the authority of a

man, whose life was spent to the benefit of mankind, and whose death was caused by his perseverance in the research after truth in the wonderful works of nature?

Sextus Papinius, it is said, brought two kinds of apples to Rome, in the 21st year of the reign of Augustus Cæsar: the one called Jujubes, out of Syria; the other, Tuberes, he brought from Africa; but their fruit, according to Pliny's account, rather resembled berries than apples.

The Wild Crab is the only apple indigenous to this country; and it is on this stock that most of our valuable apples have been grafted and raised by the ingenuity of the gardeners, who have, by sowing the seeds and studying the soil, so improved and multiplied the variety of this most excellent fruit, that it has now become of great national importance, affording an agreeable and wholesome diet, in a thousand shapes, to all classes of society.

It was not until the 16th year of the reign of Henry the VIIIth, that Pippins were first introduced into England, by Leonard Maschal, who, in Fuller's words, "brought them from over sea," and planted them at Plumstead, in Sussex, a small village on the north side of the South Downs, near

the Devil's Dyke. Maschal brought the first carp to England, and thus, at one time, furnished our orchards and our ponds with the rarest variety of each kind.

The Golden Pippin is a native of Sussex, and is said to have been first reared at Parham Park, which is also situated on the north side of the South Downs. The Dutch acknowledge it to be an English apple in their catalogue of fruits, where it is called the "Engelsche goud Pepping." The French call it "Pippin d'Or," which is a translation of the English name.

Catherine, Empress of Russia, was so fond of this apple, that she was regularly supplied with it from England; and in order that she might have it in the greatest perfection, each apple was separately enveloped in silver paper before it was packed.

The Ribston Pippin is a native of Ribston Park, Yorkshire. Hargrave, in his History of Knaresborough, (p. 216,) says, "This place is remarkable for the produce of a delicious apple, called the Ribston Park Pippin. The original tree was raised from a Pippin brought from France, from which tree such numbers have been propagated, that they are now to be met with in almost every orchard in this and many other coun-

ties." The old tree is yet standing; and in the year 1787 produced six bushels of fruit. Mr. Speechly says, he has seen the tree within these last few years, and that it was without decay, or any indication of dissolution.

Hargrave adds, "This fruit still retains it's value, being preferred before every other apple this country produces." While my namesake of Herefordshire says,—

Let every tree in every garden own
 The Redstreak as supreme; whose pulpous fruit
 With gold irradiate, and vermilion, shines
 Tempting, not fatal, as the birth of that
 Primeval interdicted plant, that won
 Fond Eve in hapless hour to taste, and die.
 This, of more bounteous influence, inspires
 Poetic raptures, and the lowly Muse
 Kindles to loftier strains; even I perceive
 Her sacred virtue. See! the numbers flow
 Easy, whilst, cheer'd with her nectareous juice,
 Her's and my country's praises I exalt.
 Hail, Herefordian plant, that dost disdain
 All other fields! Heav'n's sweetest blessing, hail!
 Be thou the copious matter of my song,
 And thy choice, nectar! on which always waits
 Laughter, and Sport, and care-beguiling Wit,
 And Friendship, chief delight of human life.
 What should we wish for more? Or why, in quest
 Of foreign vintage, insincere, and mixt,
 Traverse th' extremest world? Why tempt the rage
 Of the rough ocean, when our native glebe

Imparts from bounteous womb annual recruits
 Of wine delectable, that far surmounts
 Gallic or Latin grapes, or those that see
 The setting sun near Calpe's tow'ring height.
 Nor let the Rhodian nor the Lesbian vines
 Vaunt their rich must, nor let Tokay contend
 For sov'reignty; Phanæus' self must bow
 To th' Ariconian vales.

Gerard, who wrote his *History of Plants* about seventy years after the introduction of Pippins, has given no account of this variety of the apple. He describes but seven kinds: the Pome Water, the Baker-ditch apple—the king of apples, the Quining, or queen of apples, the Summer Pearmain, the Winter Pearmain, and the Paradise apple. In his descriptions of apples, he says, “The fruit of apples do differ in greatness, forme, colour and taste; some covered with a red skin, others yellow or greene, varying infinitely according to the soyle and climate; some very great, some little, and many of a middle sort; some are sweet of taste, or something sour; most be of a middle taste, betweene sweet and sour; the which to distinguish, I think it impossible, notwithstanding I heare of one that intendeth to write a peculiar volume of apples, and the use of them.” This author continues,

“The tame and grafted apple-trees are planted and set in gardens and orchards made for that purpose: they delight to grow in good and fertile grounds. Kent doth abound with apples of most sorts; but I have seen in the pastures and hedge rows, about the grounds of a worshipful gentleman dwelling two miles from Hereford, called M. Roger Bodnome, so many trees of all sortes, that the seruants drink for the most part no other drinke, but that which is made of apples. The quantitie is such, that by the report of the gentleman himselfe, the parson hath for tithe many hogsheads of cyder.”

“Like as there be divers manured apples, so is there sundry wilde apples, or Crabs, not husbanded, that is not grafted. We have in our London gardens, (Gerard’s garden was in Holborn) a dwarfe kind of sweet apple called the Paradise apple, which beareth apples very timely without grafting.” From this account we may conclude, that the Pippin apples were still rare, or that they had not been cultivated out of Sussex, although I find Gerard must have seen the fruit of the Pippin kind, for in his account of the Pomum Amoris, or Love Apple, he says it is the bigness of a goose egg or a large Pippin. The Pippin appears to have

been scarce even in the time of Charles the First; for in the valuation of the fruit-trees at the royal gardens of his queen at Wimbleton, there is only one Pippin-tree mentioned.

For some years past, it has been stated by several ingenious writers, that many of our best varieties of apples could no longer be cultivated with success; that by length of time they have become degenerated and worn out. Mr. Knight, the president of the Horticultural Society, seems to have been the first that gave birth to this idea. He says, in his *Pomona Herefordiensis*, that those apples which have been long cultivated are on the decay. The Redstreak and the Golden Pippin, can no longer be propagated with advantage. The fruit, like the parent tree, is affected by the debilitated old age of the variety. Again he says, in his *Treatise on the Culture of the Apple and Pear*, page 6, “the Moil, and its successful rival the Redstreak, with the Must and Golden Pippin, are in the last stage of decay, and the Stire and Foxwhelp are hastening rapidly after them.” “It is much to be regretted,” says Speechly, “that this apparently visionary notion of the extinction of certain kinds of apples should have been

promulgated by authors of respectability, since the mistake will, for a time at least, be productive of several ill consequences."

Having observed among the apples in Covent-Garden market, last year, a great quantity of the real Golden Pippin in a perfect state, I was induced to make particular inquiries respecting this fruit; and have received satisfactory accounts from all quarters, that these trees are fast recovering from a disease, or canker, which appears to have been brought on by a succession of unpropitious seasons; but that the summer of 1818, and the following year, have greatly improved them.

When I had decided to publish this History of Fruits, I waited on some gentlemen who are well known in all parts of the world for their practical knowledge in the cultivation of apples. Mr. Hugh Ronalds, jun. of Brentford, informed me that he had lately seen a tree of the Golden Pippin kind, which had been planted against a wall in a south aspect, which was in a thriving condition, and the fruit in a perfect state. Mr. Ronalds, sen. assured me it was the true Golden Pippin, and that there is no fear of losing this variety.

Mr. Lee, of Hammersmith, who politely

showed me a variety of 500 kinds of apple-trees, was decidedly of opinion that the apparent decay of some trees was owing to the unfavourable springs we have had for several years.

Mr. Knight, of the King's Road, Chelsea, has also favoured me with his opinion, which perfectly agrees with that of Mr. Ronalds and Mr. Lee. Mr. Knight added, that if this spring and summer should be as favorable as the two last seasons, he should be able to show me this and other old varieties of the apple-tree in as perfect a state as they have ever been known.

Mr. Knight, the ingenious president of the Horticultural Society, I conclude had watched these trees during the unfavourable wet seasons we have had from the commencement of the present century, and finding the disease increase, he attributed it to the old age of the varieties; for, as the great friend of Pomona, his object evidently was to encourage the obtaining and cultivation of new kinds, to replace those which he apprehended would be lost to the country. I have made this digression, to prevent if possible our best apples from being stigmatized as a decaying fruit and unprofitable to the grafter, which would be the cause of their

becoming scarce, and, in time, totally lost. I have not presumed to set my judgment in opposition to that of Mr. Knight, who is so justly celebrated for his attention to horticultural pursuits; but it behoves all who may write of this most valuable fruit, to recommend the graftings to be of the best kinds, and to throw out no hint that may cause our nurserymen to neglect it's propagation. Gerard, when he published his Account of the Apple in 1597, was a warm advocate for the cultivation of apples. "Gentlemen that have land and living," says he, "put forward, in the name of God; graffe, set, plant, and nourish up trees in euery corner of your grounds; the labour is small, the cost is nothing, the commoditie is great, your selues shall have plentie, the poor shall have somewhat in time of want to relieve their necessitie, and God shall reward your good mindes and diligence."

Herefordshire has now to boast of a friend to Pomona in Thomas Andrew Knight, Esq. who has, for some years past, been benefiting his country, by creating, if I may be allowed the expression, a new variety of fruits; but before I disclose the ingenious method he has adopted to procure new varieties, it is but justice to departed merit

to notice with whom the invention was first deemed possible: and I have great pride and satisfaction in stating, that, after an unprejudiced research, I find this wonderful discovery has been left for the perseverance of the English, who, although late in taking up botanical studies, have now surpassed whatever was done by the ancient world in this science.

Lord Bacon, who has been called the Prophet of Arts, and who looked into nature with a most curious eye of inquiry, evidently suspected that it was possible to cross the breed of plants, and so procure kinds, by art, as novel as those which nature has sometimes produced by accident.

“We see,” says the great Verulam, “that in living creatures that have male and female, there is copulation of several kinds, and so compounded creatures; as the mule that is generated betwixt the horse and the ass; and some other compounds which we call monsters.

“The compounding or mixture of kinds in plants is not found out; which nevertheless, if it be possible, is more at command than that of living creatures; wherefore it were one of the most notable experiments touching plants to find it out, for so you

may have great variety of new fruits, and flowers yet unknown. Grafting does it not :” adds this great man ; “ *that* mendeth the fruit, or doubleth the flowers, &c. ; but it hath not the power to make a new kind, for the scion ever overruleth the stock.”

Bradley, whose works were published in 1718, about a century after those of Lord Bacon, is the first author who wrote on this subject as being accomplished ; but the exact method was not then clearly understood, as he only describes it by bringing the branches of different trees together when in blossom ; but, on this hint, the gardeners in Holland and the Netherlands practised before it was much attended to in this country, where the discovery was made and published ; but, to do them justice, they have the honour to acknowledge they owe the art to the English.

It now appears to have reached its highest perfection ; and I shall proceed to relate the manner in which Mr. Knight has so successfully produced new varieties of apples and other fruits ; and although he has most clearly explained himself, yet I have thought it advisable to elucidate it more plainly by plates from drawings, which I have made from the blossoms for the ex-

press purpose, knowing how little even the botanical terms are understood by the farmers, and many gardeners in the country.

Mr. Knight, in his *Pomona Herefordensis*, says, "It is necessary to contrive that the two trees from which you intend to raise the new kind, should blossom at the same time; therefore if one is an earlier sort than the other, it must be retarded by shading, or brought into a cooler situation, and the latest forwarded by a warm wall or a sunny situation, so as to procure the blossoms at the same period."

The apple blossom contains about twenty stamina or males, which are represented in Plate I. No. 3. and generally five pointals or females, which form the centre of the cup or cavity of the blossom, as in Figure No. 4. The males stand in a circle, just within the bases of the petals, or flower leaves, and are formed of slender threads, each of which terminates in a small yellow ball or anther, as in Fig. 5. As soon as the blossoms are nearly full grown, as in Fig. 1. they must be carefully opened, and all the male stamina cut or extracted, so as not to injure the pointals or females, which will then appear as in Fig. 4. The blossoms are then closed again, as in Fig. 1. and suffered to

remain till they open spontaneously. From the blossoms of the tree, which it is proposed to make the male parent of the future variety, must be taken a portion of their pollen or farina, when ready to fall from the mature anthers, and deposited upon the pointals of the blossoms, which consequently will afford seed. By shaking the blossoms over a sheet of white paper, you will ascertain when the pollen is ready. It is necessary in this experiment, to cover the branches on which the prepared blossoms are, with a thin muslin or gauze, so as not to touch the flowers, or keep off the sun or air, but to prevent the bees or other insects from inoculating them with the pollen of other blossoms, which would make the experiment uncertain; and in order to obtain the fruit and the seeds of a large size, it is best to leave but few blossoms on the tree, and, at all events, to clear the branches on which the prepared flowers are, from all other blossoms. When the fruit is quite ripe, the pips or seeds should be sown at a proper season, and in suitable soil, and in about four or six years fruit may be expected. Mr. Knight has also made some curious experiments between the peach and the almond, which will be found in the account of the former fruit.

Among the new apples which the world have to thank Mr. Knight for, is the Grange apple, which fruited first in 1802, and obtained the prize of the Herefordshire Agricultural Society: it is the offspring of the Orange Pippin and the Golden Pippin. He also obtained the annual premium of the same society, in 1807, for the Siberian Harvey, an apple which fruited for the first time in that year. This tree was raised from the seed of the Yellow Siberian Crab and the pollen of the Golden Harvey. Mr. Knight also raised the Foxley apple, from the seed of the yellow Siberian Crab and the pollen of the Orange Pippin: this fruit also received the premium in 1808, and it is said to rival the Golden Pippin in sweetness.

The cultivation of this, our most valuable fruit, has been attended to with so much care of late years, that one of our great gardeners, (Mr. Hugh Ronalds, of Brentford,) exhibited at the Horticultural Society, in August, 1818, sixteen varieties of apples, and in September he exhibited fifty-eight other sorts, all grown in his own garden, and considered the finest collection ever exhibited. In the month of October of the same year, he exhibited fifty-three sorts, making in the whole a variety of 127 kinds

of this our staple fruit, which, in point of real value, takes place of all others, and affords a variety for all seasons of the year, both for the dessert and for culinary purposes, as well as the drink of which Phillips in Miltonian verse has sung,—

Some ciders have, by art or age, unlearn'd
 Their genuine relish, and of sundry vines
 Assum'd the flavour; one sort counterfeits
 The sparkling nectar of Champagne; with that,
 A German oft has swill'd his throat, and sworn,
 Deluded, that imperial Rhine bestow'd
 The gen'rous rummer, whilst the owner, pleas'd,
 Laughs inly at his guest, thus entertain'd
 With foreign vintage from his cider cask.

Thomson has thus beautifully described the cider season :—

The fragrant stores, the wide projected heaps
 Of apples, which the lusty-handed year,
 Innumerable, o'er the blushing orchard shakes;
 A various spirit, fresh, delicious, keen,
 Dwells in their gelid pores; and, active, points
 The piercing cider for the thirsty tongue.

Apple-wine is admired as a summer beverage, but it is by no means equal to the cider made from Golden Pippins, which, when given in good condition, and well timed, surpasses every other refreshing drink. The spirit extracted from cider is equal to

brandy for preserving fruit, or mixing in made wines or liquors.

A solution of iron in the juice of the Golden Rennet, evaporated to a thick consistency, proves an elegant chalybeate.

Dr. Short informs us, that cider was first invented by a Norman, who much admired the delicate flavour of apples; and “long observation,” says he, “assures us, that such as chiefly drink cider, are more healthy and strong, and have better complexions, than those that are accustomed to wine or ale.” Both Lord Bacon and Dr. Baynard tell us of several persons near a hundred, and some above, who, having seldom used any other liquor, were very active and vigorous at that age. It is certainly more nourishing than wine, for not being so thoroughly fermented, its spirits are less subtile and impetuous.

“There is made an ointment,” says Gerard, “with the pulp of apples and swine’s grease and rose-water, which is used to beautify the face, and to take away the roughness of the skin, which is called in shops pomatum, of the apples whereof it is made.”

As the Horticultural Society of this country has been established for the purpose of benefiting the world by their attention to the improvement of our various fruits, and

as I know it to be a part of their study to induce the planters of orchards to cultivate and propagate the best kinds of apples only, I trust that by their attention we shall soon have our markets supplied with a superior kind of apples to what is now generally offered for sale, as the same land that will produce an ill-flavoured apple will afford a good one; and it is as easy to raise the best kinds of apple-trees as those of inferior value.

The Siberian Crab Apple was not cultivated in this country until 1758, and the small fruited variety was first introduced in 1784. The flavour of this latter kind is highly esteemed in tarts and puddings, and the tree is often planted as an ornament in our shrubberies.

In pruning apple-trees, nothing more should be done than to cut out all those branches which cross each other, to prevent the rubbing of the bark; but never to shorten any of their shoots, except those shoots or suckers which proceed from the stem, which should be entirely taken off, as also all branches broken by the wind or accident, which should be cut off close to the division of the branch. November is the best time to prune apple-trees, as it

injures them to prune in frosty weather, or when the sap begins to rise. Pruning is to be avoided as much as possible, as it creates useless shoots, and prevents the fruiting; but if trees are becoming too full of branches, which will be the case in espaliers, the better way is to rub off the buds and shoots which are irregularly produced, in the growing season. All sorts of apples produce their fruit upon cursions, or spurs, therefore it is necessary to be careful not to cut off or destroy them, as they continue to be fruitful for several seasons.

The apples intended to be preserved for the winter should remain on the trees until quite ripe, when they should be gathered in dry weather, and placed in a heap for five or six weeks, in order to sweat: they should then be carefully wiped dry, and those that are perfectly sound, packed in large jars or boxes so as to be excluded from the air, which will keep them sound and plump, and retain their flavour.

I have found the wood of old apple-trees, when used as a fuel, produce a most agreeable perfume.

The various diseases to which the apple-tree is subject, have occupied the attention and the pen of some of our greatest natu-

ralists, as well as many of our eminent practical gardeners. Animals of different species are found to engender a variety of kinds of animalculæ, particularly where cleanliness is not attended to. Trees, according to their kinds, attract different blights: our endeavours, therefore, would be in vain to avoid the blight affecting the leaves and blossoms of large trees; but as the trunk and branches of the apple-tree are often injured, and sometimes destroyed, by animalculæ, an attention to the cleanliness of these trees cannot fail of being beneficial to their growth. It has therefore occurred to me, from observations and experiments I have made since compiling this work, that if the trunks of the apple-trees were rubbed with the leaves and young shoots of the elder, to which all kind of blight hath an antipathy, that those injurious although minute insects would not only be destroyed, but that it would prevent their fixing themselves on these trees. As this is a matter of importance to the public, I shall feel obliged by the remarks of any gentlemen who may be disposed to try the experiment. The canker of apple-trees, I apprehend, is principally occasioned by the uncongenial quality of the soil. I lately travelled with a gentleman, who

informed me, that having observed all his apple-trees became cankered at a certain state of growth, he was induced to examine the nature of the soil at the greatest depth the roots had penetrated, and which he found consisted of gravel. Not being willing to give over the propagation of apple-trees, he caused a pavement of bricks to be made on the bed of gravel, which obliged the roots to take a horizontal direction, and thereby prevented their reaching the gravel, since which they have been free from canker.

BARBERRY.—BERBERIS;

Or, THE PIPPERIDGE-BUSH.

*In Botany, a Genus of the Class Hexandria
Monogynia.*

THE common barberry-bush is a native of this country; and notwithstanding the high state of cultivation this kingdom is now arrived at, it is still to be found growing wild in many parts of the northern counties. Gerard says, in his time (1597) most of the hedges near Colnbrook were nothing else but barberry-bushes.

It is now very properly introduced into our gardens and shrubberies, being both ornamental and useful; but it requires caution in planting, not to have it near the house or principal walks, on account of its offensive smell when in blossom. The flowers are small, but beautiful; and on their first appearance have a perfume similar to the

cowslip, which changes to a putrid and most disagreeable scent, particularly towards the evening and at the decay of the flowers. I have a barberry-tree in my garden near twenty feet in height, the branches of which extend over a circumference of sixty-feet. It has been covered with blossom this spring, and had a pleasing effect in the shrubbery ; but was so offensive for about a fortnight, that no one would walk near it during that time. It seems particularly attractive to singing birds wherever it is planted, especially the bullfinch and the goldfinch, both of which often build in these bushes.

A very singular circumstance has been stated respecting the barberry-shrub,—that corn sown near it, proves abortive, the ears being in general destitute of grain ; and that this influence is sometimes extended to a distance of three or four hundred yards across a field. This is a just cause for banishing it from the hedge-rows of our arable fields, for which, otherwise, it's thorny branches would have made a desirable fence. When this coral-like fruit is ripe, it adds much to the beauty of the garden ; but it's acidity is so great, that even the birds refuse to eat it.

I conclude it is the fruit called *appendices* by the ancients. Pliny says, “ There

is a kind of thorny bush called *appendix*, having red berries hanging from the branches which were called *appendices*:" he adds, "these berries, either raw by themselves, or dried, and boiled in wine, are good to stay the flux of the body." I find, by Gerard's account, that the leaves were formerly used in salad, and to season meat with: he also says, "The green leaves of the barberry-bush stamped, and made into sauce, as that made of sorrel called green sauce, doth cool hot stomachs, and those that are vexed with hot burning agues, and procureth appetite."

Barberries are of an agreeable, cooling, astringent taste, which creates appetite. A conserve is made from this fruit that is refreshing, and strengthens the stomach, and is good against diarrhœas and dysenteries. The juice, or decoction, abates the inflammation of the fauces and tonsils, and heals scorbutic gums.—*Brookes*.

Pickled barberries make a handsome garnish for all white dishes, where acids can be introduced: this fruit is also used for making syrup, lozenges, &c.

The bark of the tree is a good medicine against the jaundice, and all obstructions and foulness of the viscera. The inner bark of this tree, with the assistance of alum, dyes a

bright yellow: in Poland it is used for colouring of leather.

We have now several varieties of the barberry-shrub cultivated in England, one of which was brought from Candia in 1759, and another from Siberia in 1790; but it possesses no advantage over our native kind of this fruit.

BEECH.—FAGUS.

*A Genus of the Castanea, or Chesnut Tree,
and of the Class Monœcia Polyandria.*

THE beech is one of the handsomest of our native forest-trees, which, in stateliness and grandeur of outline, vies with the oak. It seems to have been greatly admired by the ancients. Pliny says, "There was a little hill called Carne, in the territory of Tusculum, not far from the city of Rome, that was clad and beautified with a grove and tufts of beech-trees, which were as even and round in the head as if they had been curiously trimmed with garden shears." He adds, "this grove was, in old times, consecrated to Diana, by the common consent of all the inhabitants of Latium, who paid their devotions there." This author mentions one of these beech-trees, of such beauty, that Passienus Crispus, an excellent orator, who

was twice consul, and afterwards married the Empress Agrippina, was so much attached to, that he not only reposed under it, but sprinkled it plentifully with wine, and would even embrace it.

Manius Curius, after he had subdued his enemies, protested with an oath, that of all the booty and pillage taken from them, he had reserved nothing for himself but a cruet, or little ewer, made of beech-wood, wherein he might sacrifice to the gods.

The beech, it will be observed, from the class it is ranged under, produces both male and female flowers on the same tree. The fruit succeeds the latter blossoms, which have a one-leafed empalement, cut into four parts, but have no petals: the germen is fixed to the empalement, which afterwards becomes a roundish capsule, armed with soft pines opening in three cells, each containing a triangular nut, called the beech mast. This nut is palatable to the taste, but when eaten in great quantities occasions head-aches and giddiness; nevertheless, when dried and ground into meal, it makes a wholesome bread. This fruit is celebrated for having enabled the inhabitants of Scio, one of the Iönian Islands, to sustain a me-

morable siege, which they did by the beech masts and acorns that their island afforded.

An oil, equal in flavour to the best olive oil, with the advantage of keeping longer without becoming rancid, may be obtained from the nuts by pressure. It is very common in Picardy and other parts of France, where the masts abound; in Silesia, it is used by the country people instead of butter. The cakes which remain from the pressure are given to fatten swine, oxen, or poultry. A bushel of masts are said to produce a gallon of clean oil, but the beech-tree seldom produces a full crop of masts oftener than once in three years.

A few years ago, an attempt was made to introduce the making of beech-oil in this country, and a patent was granted to the projector; but the difficulty of bringing the country people into any new measure, however beneficial to them, is so great, that it often destroys the best concerted projects. In this instance it was found, that they would rather let the swine consume the masts, than suffer their children to collect them for sale to the patentee, and thus failed the making of salad oil in England.

In the reign of George the First, I find

a petition was made for letters patent for making butter from beech-nuts.

The finest beech-trees in England are said to grow in Hampshire. The forest of St. Leonard, near Horsham, in Sussex, abounds with noble beech-trees. The cottagers of this forest inform you, that when St. Leonard wished to rest beneath these trees, he was disturbed during the day by the biting of vipers, and that his repose was broken in the night by the warbling of nightingales, and on that account they were removed by his prayers, since which time tradition says of this forest,—

The viper has ne'er been known to sting,
Or the nightingale e'er heard to sing.

The shade of the beech-tree is very injurious to most sorts of plants that grow near it, but is generally believed to be very salubrious to human bodies. The leaves of the beech are collected in the autumn, to fill mattresses instead of flock or straw, as they remain sweet, and continue soft, for many years. To chew beech-leaves is accounted good for the gums and teeth. The Romans used beech-leaves and honey to restore the growth of hair, which had fallen off in sickness.

The timber of these trees, in point of actual use, follows next to the oak and the ash, and is little inferior to the elm for water pipes. Between the years 1790 and 1800, when John Aldredge, Esq. of New Lodge, St. Leonard's Forest, was causing fish-ponds to be dug in that neighbourhood, the workmen found scantlings of beech timber, and trunks of these trees, squared out, which were supposed to have been buried in the earth since the time of the Romans, as there is no record mentioning that part of the forest having been either cleared, or ponds made since. Beech-timber is subject to worms when exposed to the air without paint. It is used by wheelwrights and chairmakers, and also by turners for making domestic wooden ware, such as bowls, shovels, &c. Bedsteads and other furniture are often made with this timber; and no wood splits so fine, or holds so well together, as beech, so that boxes, sword-sheaths, and a variety of other things, are made from it. When the art of splitting this wood was first known in England, the parties who used it kept the method a profound secret for many years.

BLACKBERRY.—RUBUS;

Or, BRAMBLE BERRY.

*A Species of Raspberry.—In Botany, a Genus
of the Icosandria Polygynia Class.*

THE bramble derives its Latin name, *rubus*, from the redness of the twigs and juice of the fruit. Pliny informs us, “that the propagation of trees by layers, was taught the ancients by the bramble-bush.”

Some bow their vines, which, buried in the plain,
Their tops, in distant arches, rise again.

Dryden's Virgil.

“The berries,” says Pliny, “are the food of man, and have a desiccative and astringent virtue, and serve as a most appropriate remedy for the gums and inflammation of the tonsils.” The flowers also, as well as the berries of the bramble, were considered by the ancients as remedies against the worst of

serpents. They are diuretic, and the juice pressed out of the tendrils, or young shoots, of brambles stamped, and afterwards reduced into the consistency of honey by standing in the sun, is, says the above author, “a singular medicine taken inwardly, or applied outwardly, for all the diseases of the mouth and eyes, as well as for the quinsy,” &c. The young shoots, eaten as a salad, will fasten teeth that are loose. The roots of the bramble, boiled in wine, were esteemed one of the best astringents by the Roman physicians, who preferred the juice of blackberries to that of mulberries for the infirmities of the mouth. Brookes says, “the fruit, when ripe, is cooling, and quenches thirst; and the leaves pounded, and applied to ringworms, and ulcers of the legs, will heal them in a short time.” Boerhaave affirms, that the roots taken out of the earth in February or March, and boiled with honey, are an excellent remedy against the dropsy.

The jam made from blackberries is now much used in sore throats caused by colds, and is given in slight fevers.

The juice of blackberry mixed with raisin wine, before it has fermented, will give it both the colour and flavour of claret.

There is a kind of this fruit, called *rubus*

casius, or dew-berry, but which Gerard calls *rubus saxatilis*, or stone-berry; the protuberances of which are much larger, and fewer in number, than those of the common black-berry. It is generally found trailing on the banks of hedge-rows, or in hazel copses, seldom growing above a foot high. This is a berry of excellent flavour, and well deserving a place in cultivated grounds, as it must be equally beneficial to society that our native fruits should be improved, as well as that new varieties should be imported from climates that can give but little hope of their thriving without the aid of artificial heat.

CACAS.—THEOBROMA ;

Or, CHOCOLATE TREE.

In Botany, of the Polyadelphia Decandria
Class : Natural Order, Columniferæ.

THE generic name is derived from two Greek words, signifying the food of the gods.

The cacas, or chocolate-tree, is a native of South America, and is said to have been originally conveyed to Hispaniola from some of the provinces of New Spain, where, besides affording the natives a principal part of their nourishment, it also serves the purpose of money, 150 of the nuts, (which are about the size of Windsor beans,) being considered of the same value as a rial by the Spaniards.

It is not only an article of great internal consumption, but for exportation it is one of the most valuable fruits. Guthrie considers the cacas from which chocolate is made, as the next considerable article in the na-

tural history and commerce of Mexico, to gold and silver. A garden of cacas is said to produce the owner twenty thousand crowns a year.

Chocolate was not known in England until the eleventh year of the reign of Henry the Eighth, although twenty-three years had elapsed since Columbus had discovered the country of which it is a native.

Chocolate is esteemed the most restorative of all aliments, insomuch that one ounce of it is said to nourish as much as a pound of beef.

An acquaintance, on whose veracity I can rely, informed me, that during the retreat of Napoleon's army from the North, he fortunately had a small quantity of little chocolate cakes in his pocket, which preserved the life of himself and a friend for several days, when they could procure no other food whatever, and many of their brother officers had perished for want.

In all countries where chocolate is known, it is esteemed, and found to be a suitable diet for all ages, more particularly for infants, old persons, those of consumptive habits, and such as are recovering from sickness.

It is related in Hawkesworth's Voyages, that Commodore Byron, in his passage through

the South Seas, found plenty of cacas in the island called King George's Island, and that many of his men, who were so afflicted with scorbutic disorders that their limbs were become black as ink, and who could not move without assistance, and suffering excruciating pain, were in a few days completely cured by eating these nuts, and able to resume their accustomed duties.

I have often been surprised that the making of the small chocolate cakes for eating, should not have been attempted by some persons in London, when they are in such demand at Paris, where a celebrated manufacturer of these chocolate trifles assured me that he had then, in 1816, received an order from a late high personage in England that would exceed £500.

The oil of the cacas-nut is the hottest of any known, and is used to recover cold, weak, and paralytic limbs. The Mexicans are said to eat the nuts raw, to assuage pains in the bowels.

We cannot but regret that the cultivation of this valuable plant should have been discontinued in our West-India islands, nor can we be surprised when we find that the duty, including the customs and excise, amounted to upwards of four hundred and

eighty per cent. on its marketable value, when manufactured.

It is carefully cultivated in all the French and Spanish settlements in the warmer parts of America. For what reason our ministerial policy should have so widely differed from that of the neighbouring courts, I am unable to guess; but I trust that the alteration which has lately taken place in the duty on chocolate, will prove a benefit to our revenue, an advantage to our colonies, and a credit to the ministers who adopted this measure.

It is certain that the cultivation of the cacas plantation was both extensive and successful in the British sugar islands, for many years after they had become subject to our government. Blome, who published a short account of Jamaica in 1672, speaks of cacas as being at that time one of the chief articles of export: "There are," says he, "in this island, at this time, about sixty cacas walks, and many more now planting." At present, I believe, there is not a single cacas plantation from one end of Jamaica to the other. A few scattered trees, here and there, are all that remain of those flourishing and beautiful groves which were once the pride and boast of the country. "They have withered with the indigo ma-

nufacture," says Edwards, "under the heavy hand of ministerial exaction."

The produce of one tree in Jamaica was generally estimated at about twenty pounds of nuts. The produce per acre was rated at one thousand pounds per annum, allowing for bad years.

The chocolate-tree grows to about six feet high before the head spreads out, and it seldom exceeds from sixteen to twenty feet in the whole height, the boughs and branches beautifully extending themselves on every side, resembling the heart cherry-tree, the leaves being much of the same shape. The tree bears leaves, flowers, and fruit, all the year through; but the usual seasons for gathering the fruit are June and December. The flowers spring from the trunk and large branches: they are small, but beautiful, and sometimes pale red, but most commonly of a saffron colour: the pods are oval and pointed, and contain from ten to thirty nuts each, almost like almonds, adhering to one another by soft filaments, and enclosed in a white pulpy substance, soft and sweet, which some persons suck when they take them out of the shells. The pods change from green to a yellowish colour when they reach to their maturity,

which is known by the rattling of the nuts, when the pods are shaken. When gathered, it is usual to lay the pods in heaps to sweat for three or four days before they are opened; they are then exposed upon mats or skins, to the sun, every day for about a month.

The cacas-tree is permitted to bear a moderate crop of fruit the fourth year after the seed has been sown: but if the plant is weak, a greater quantity of the blossoms are gathered, in order that it may recover strength. The tree attains it's full perfection in eight years: after that it will continue to produce fruit for thirty years or more, if planted in a good soil; but it is obnoxious to blights, and shrinks from the first appearance of drought. In early times the planters had many superstitious notions concerning this tree, and among others, the appearance of a comet was always considered as fatal to the cacas plantation.—*Lunan.*

The chocolate-tree was grown in our stoves as early as the year 1739.

CASHEW-NUT.—ANACARDIUM.

In Botany, a Class of the Polygamia Monœcia
Class. Natural Order, Holoraceæ.

THE generic name is derived from two Greek words, signifying without a heart; because the fruit, instead of having the seed enclosed, has the nut growing at the end.

The cashew-tree, is a native of the Brazils, and other parts of America, where it grows to the height of twenty feet or more, in favourable situations. Luhan gives the following account of it in his *Hortus Jamaicensis*. The fruit is full of an acrid juice, which is frequently used in the making of punch. To the apex of the fruit, grows a nut, of the size and shape of a hare's kidney, but much larger at the end which is next the fruit than at the other end. The shell is very hard, and the kernel, which is esteemed the finest nut

in the world, is covered with a thin film. Between this and the shell is lodged a thick, blackish, inflammable liquor, of such a caustic nature in the fresh nut, that if the lips chance to touch it, blisters will immediately follow. The fruit is said to be good in disorders of the stomach; for the juice of it cuts the thick tough humours, which obstruct the free circulation of the blood, and thus removes the complaint. This juice, expressed and fermented, makes a fine rough wine, useful where the viscera or solid system has been relaxed. Barham, who has written on this fruit, says, "the stone of this apple appears before the fruit itself, growing at the end in the shape of a kidney, as big as a walnut. Some of the fruit are all red, some entirely yellow, and some mixed with both red and yellow, and others perfectly white, of a very pleasant taste in general; but there is a great variety, as some more sharp, some in taste resembling cherries, others very rough like unripe apples. The taste of most of them is sweet and pleasant, but generally goes off with an astringency or stipticity upon the tongue, which proceeds from it's tough fibres, that run longwise through the fruit. When cut with a knife, it turns as black as ink. The generality of the fruit

is as big and much of the shape of the French Pippins, and makes an excellent cider or wine." Barham adds, that he has distilled a spirit from the nut far exceeding arrack, rum, or brandy, of which an admirable punch is made.

The flowers are very small, grow in tufts of a carnation colour, and are very odiferous. The leaves much resemble those of the common walnut-tree in shape and smell, and a decoction of them is equally effectual in cleansing and healing old wounds.

The oil cures the herpes, takes away freckles and liver spots, but draws blisters, and therefore must be cautiously made use of; it also takes away corns, but it is necessary to have a very good defensive round the corn to prevent inflaming the part. The inside kernel is very pleasant to eat when young, and, before the fruit is too ripe, exceeding any walnut; and when older and drier, roasted, is very pleasant, exceeding Pistachio nuts or almonds; and ground up with cocoa, makes an excellent chocolate.

It has been observed, that poor dropsical slaves who have had the liberty to go into a cashew-walk, and eat what cashews they

please, as well as the roasted nuts, have been recovered. These trees are of quick growth: Barham says he has planted the nuts, and the young trees have produced fruit in two years after. They will continue bearing fruit for more than a hundred years. Many are now flourishing in Jamaica that were planted when the Spaniards had it in possession.

I have lately received from Jamaica a cashew apple, bearing two distinct nuts, which was considered so rare a circumstance that it was preserved in spirits. It's appearance is unnatural, resembling a lemon pippin apple, with two lambs' kidneys stuck on the end.

The wood of the cashew is excellent, strong, and lasting timber.

These trees annually transude in large quantities, *viz.* often to ten or twelve pounds' weight of fine, semi-transparent gum, similar to gum-arabic, and not at all inferior to it in virtue and quality, except that it contains a light astringency, which perhaps renders it the more valuable in many respects: for this reason it is often used as a succedaneum in the Jamaica shops.

The thick oil of the nut or shell tinges linen of a rusty iron colour, which can be

hardly got out; and if any wood be smeared with it, it preserves it from decay. From the body of this tree is procured, by tapping, or incision, a milky juice, which stains linen of a deep black, and cannot be discharged. Dr. Grew mentions the juice being used for staining of cottons; but it is doubtful which of the species he means, though Sir Hans Sloane supposes it to be of the acajou or cashew, here mentioned.

Long seems of opinion that this juice has the same property as the Japan lac.

The oil between the rinds of the nut, if held to the candle, emits bright, salient particles. This oil is used as a cosmetic to remove freckles and sun burning, but the pain suffered, makes it's use not very frequent. *Grainger.*

The pith, or medullary part of the anacardium, is extremely pungent and acrimonious; whence the ancients made great use of it in cold diseases of the head, particularly to strengthen the memory; but the abuse of it sometimes making them stupid, delirious, or even mad, the moderns rarely venture on it's use, at least not without great correctives. *Chambers.*

The cashew nut-tree can only be raised in stoves in this country, where it has been cultivated since the year 1699.

WILKINSON'S HISTORY

In History of the American Colonies, Vol. 1
The first colony was founded by the
in 1607; but it was not
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CHERRY.—CERASUS.

In Botany, of the Icosandria Monogynia Class.
It was formerly considered by Botanists
as a distinct Genus; but Linnæus pro-
nounces it of the Prunus Species.

THIS beautiful fruit was procured and brought into Europe by the overthrow of Mithridates, king of Pontus, when he was driven from his dominions by Lucullus, the Roman general, who found the cherry-tree growing in Cerasus, a city of Pontus, (now called Keresoun, a maritime town belonging to the Turks in Asia,) which his army destroyed, and from whence it derived the present name of Cherry. Lucullus, who was as great an admirer of nature as he was of the arts, thought this tree of so much importance, that when he was granted a triumph, it was placed in the most con-

spicuous situation among the royal treasures which he obtained from the sacking of the capital of Armenia; and I doubt much if there was a more valuable acquisition made to Rome by that war, which is stated by Plutarch to have cost the Armenians 155,000 men: we may very justly style it the fruit of the Mithridatic war.

Botany seems to have been more studied in early times by distinguished persons than at present. In this instance we find the conquered and the conqueror both botanists. Mithridates, whom Cicero considered the greatest monarch that ever sat on a throne, and who had vanquished twenty-four nations whose different languages he had learnt, and spoke with the same ease and fluency as his own, found time to write a treatise on botany in the Greek language. His skill in physic is well known: there is even, at this day, a celebrated antidote, called Mithridate, a particular translation of the account of which will be found in the history of the walnut.

It was in the 68th year before the birth of Christ, that Lucullus planted the cherry-tree in Italy, which "was so well stocked," says Pliny, "that in less than twenty-six years after, other lands had cherries, even as

far as Britain beyond the Ocean." This would make their introduction to England as early as the 42d year before Christ, although they are generally stated not to have been brought to this country until the early part of the reign of Nero, A. D. 55.

Some idea may be formed of the Roman gardens, by the luxurious manner in which Lucullus lived in his retirement from Rome and the public affairs. He had passages dug under the hills, on the coast of Campania, to convey the sea-water to his house and pleasure grounds, where the fishes flocked in such abundance, that what were found at his death sold for more than twenty-five thousand pounds. Pliny mentions eight kinds of cherries as being cultivated in Italy, when he wrote his Natural History, which was about the 70th year, A. D. "The reddest cherries," continues he, "are called *apronia*; the blackest, *actia*; the Cæcilian are round. The Julian cherries have a pleasant taste, but are so tender that they must be eaten when gathered, as they will not endure carriage." The Duracine cherries were esteemed the best, but in Picardy the Portugal cherries were most admired. The Macedonian cherries grew on dwarf trees; and one kind is men-

tioned by the above author, which never appeared ripe, having a hue between green, red, and black. He mentions a cherry that was grafted, in his time, on a bay-tree stock, which circumstance gave it the name of *laurea*: this cherry is described as having an agreeable bitterness. “The cherry-tree could never be made to grow in Egypt,” continues Pliny, “with all the care and attention of man.”

The county of Kent has long been celebrated for the quantity of cherries which it produces, and, in all probability, they were first planted in this part of England, of which Cæsar speaks more favourably than of any other part which he visited. Some authors assure us, that the whole race of cherries that had been brought to this country by the Romans, were lost in the Saxon period, and were only restored by Richard Harris, fruiterer to Henry the VIIIth, who brought them from Flanders, and planted them at Sittingbourn in Kent. This appears to be an error, as Gerard says, “the Flanders’ cherrie-tree differeth not from our English cherrie-tree in stature or in forme,” &c.

There is an account of a cherry-orchard of thirty-two acres in Kent, which, in the year 1540, produced fruit that sold in these

early days for £1000, which seems an enormous sum, as at that period good land is stated to have let at one shilling per acre. We can only reconcile our minds to this great price, from the deficiency of other fruits in this country, and the splendour in which Henry the VIIIth and his ministers lived.

Fruit orchards are still considered the most valuable estates in Kent; and I learn from Boys's Kent, that cherry-gardens, while in full bearing, pay better than orchards; but the cherry-tree does not generally continue more than thirty years in perfection. Mr. Randall says he has known a single cherry-tree produce fruit that he has sold for above five pounds per year, for seven years in succession. Gérard says, "the Luke Warde's cherriè is so called, because he was the first that brought the same out of Italy; another we have called the Naples' cherrie, because it was first brought into these parts from Naples: the fruit is verie great, sharpe pointed, somewhat like a man's heart in shape, of a pleasant taste, and of a deepe blackish colour when it is ripe." This author mentions the Spanish and the Gascoigne cherry, &c. and says, "there are many other sorts in our London gardens."

The cherry seems to have been a fruit highly esteemed by the court in the time of Charles the First, as I find, by the survey and valuation of the manor and mansion belonging to his queen, Henrietta Maria, at Wymbleton (now Wimbledon) in Surry, which was made in 1649, there were upwards of two hundred cherry-trees in those gardens. (*Archæologia*, vol. x. p. 399.)

I have observed, that the cherry-gardens in the vicinity of London, have what is termed an upper and an under crop, which is done by planting strawberries or currants, &c. between the trees; and the latter fruit, I have noticed, has been as fine, and as productive, as when planted by itself, and engrossing the whole garden. Phillips says the apple tree is

Uneasy, seated by funereal yew,
 Or walnut, (whose malignant touch impairs
 All generous fruits,) or near the bitter dews
 Of cherries; therefore weigh the habits well
 Of plants, how they associate best, nor let
 Ill neighbourhood corrupt their hopeful grafts.

Lord Bacon has clearly elucidated what the ancients considered the sympathy or antipathy of plants. "For it is thus," says this great man, "wheresoever one plant draweth such a particular juice out of the earth

as it qualifieth the earth, so that juice which remaineth is fit for the other plant: there the neighbourhood doeth good, because the nourishments are contrary, or several; but where two plants draw much the same juice, there the neighbourhood hurteth; for the one deceiveth the other."

The cherry, like many other kinds of fruits, has had its sorts so multiplied, by various graftings and sowing the seeds, that we now enjoy a great variety of this agreeable fruit, and for a considerable portion of the summer, as it is one of the first trees that yields its fruit in return for the care of the gardener. From the ripening of the Kentish and the May Duke, to the Yellow Spanish and the Morello, we may reckon full one third of the year that our desserts are furnished with this ornamental fruit; and to those who have the advantage of housed trees, the cherry makes a much earlier appearance, as it is a fruit that bears forcing exceedingly well.

Cherries have ever been found more tempting than wholesome. Pliny says, "this fruit will loosen and hurt the stomach; but, when hung up and dried, has a contrary effect." He relates, that some authors have affirmed that cherries, eaten fresh from

the tree when the morning dew is on them, and the stones being also swallowed, will purge so effectually, as to cure those who have the gout in their feet.

Dried cherries are much esteemed for winter puddings, and the wine made from this fruit much resembles the red Constantia, both in colour and flavour. The small black cherries, with good brandy, produce one of the most wholesóme as well as agreeable liquors. *Eau de cérisés* is an admired liquor of France.

The wood of the cherry-tree, which is hard and tough, is next to oak for strength, and comes the nearest to mahogany in appearance: it is in much request by the turners for making chairs, &c.

The cherry-tree produces its fruit generally at the extremity of the branches; therefore, in pruning, they should never be shortened.

Judiciously planted, the cherry-tree is very ornamental in a shrubbery, its early white blossoms contrasting with the sombre shades of evergreens in the spring, and its graceful ruby balls giving a pleasing variety in the summer.

There is a feast celebrated at Hamburg, called the “Feast of Cherries;” in which

troops of children parade the streets with green boughs ornamented with cherries, to commemorate a victory obtained in the following manner: in 1432 the Hussites threatened the city of Hamburg with an immediate destruction, when one of the citizens named Wolf proposed that all the children in the city, from seven to fourteen years of age, should be clad in mourning, and sent as supplicants to the enemy. Procopius Nasus, chief of the Hussites, was so touched with this spectacle, that he received the young suppliants, regaled them with cherries and other fruits, and promised them to spare the city. The children returned crowned with leaves, holding cherries, and crying "*Victory!*"

CHESTNUT.—CASTANEA.

In Botany, it is ranged in the Class of Monœcia Polyandria, and is of the Genus of Fagus, or Beech. The Fruit is more properly a Mast than a Nut.

THE chesnut-tree was first brought to Europe from Sardis, (now Sart,) a town of Asia Minor, by the Greeks, who called the fruit the Sardinian nut, until it was honoured by the appellation of Διὸς Βάλανος, or Jupiter's nut. Sardis was burnt by the Athenians 504 years before Christ, which caused the invasion of Attica by Darius. We may therefore venture to conclude that the chesnut was thus early known to the Grecians. Pliny mentions eight kinds of chesnuts as being known to the Romans in his time, and says they were ground into meal, and made into bread, by the poor; "but when roasted," he adds, "they are pleasanter and better food." He also mentions one kind, *coctiva*

(chestnuts to be boiled). Chestnuts were considered nutritive by the ancients, and good for those who retched up blood.

“Chestnuts,” continues Pliny, “were much improved when men began to graft them.”

The Romans called them *Castanea*, after a city of that name in Thessalia, from whence they first procured them, and where they were grown in great abundance by the Grecians.

Some authors affirm that the chestnut-tree is a native of this country. Dr. Ducarel maintains, in his *Anglo-Norman Antiquities*, that it is an indigenous, or native tree of this island; for this purpose he alleges, that many of our old buildings in London, and other places, contain a great quantity of this timber.

The remains of very old decayed chestnut-trees may be seen in the Forest of Dean, Enfield Chase, and in many parts of Kent. At Fortworth, in Gloucestershire, is a chestnut-tree fifty-two feet round: it is proved to have stood there since the year 1150, and was then so remarkable, that it was called “*The great chestnut of Fortworth.*” It fixes the boundary of a manor. Mr. Marsham states that this tree is 1100 years old.

Cheshunt, or Chestrehunt, in Hertford-

shire, is supposed to have been so called from the chesnut-trees with which it formerly abounded.

Camden remarks, that Cowdery Park, near Midhurst in Sussex, abounded in fine chesnut-trees. It is therefore evident that chesnut timber has been long known in this country; but I am induced to believe that it was one of the fruits which was introduced by the Romans to this island.

Chesnuts were certainly considered as a proper food for man by Lord Bacon, who in his "Essay on Plantations," says, "In a country of plantation, first look about what kind of victual the country yields of itself to hand; as chesnuts, walnuts, pine apples, olives, dates, &c. &c."

Chesnuts stewed with cream make a much admired dish, and many families prefer them to all other stuffings for turkeys; they make an excellent soup; and I have no doubt but that chesnuts might be advantageously used in cooking, so as to make many agreeable and wholesome dishes. I have had them stewed and brought to table with salt fish, when they have been much admired; but it is exceedingly difficult to introduce any article as food that has not been established by long custom; and it is not more strange

than true, that the difficulty increases, if the object be economy.

The importation of chesnuts is very considerable both from Spain and Portugal, yet I believe it is rare if ever there is a single meal made from them in this country. The Catalonians have this strange religious practice. On the 1st of November, the eve of All Souls, they run about from house to house to eat chesnuts, believing that for every chesnut they swallow, with proper faith and unction, they shall deliver a soul out of purgatory.

As ornamental and profitable for parks, chesnut-trees are exceeded by no others, which all must acknowledge who have seen the fine avenues in Greenwich Park. There is no better food for deer than chesnuts, and they fall from the trees when other sustenance is scarce.

The timber is of equal value with the best oak, and, for many purposes, far exceeding it. No wood is more preferable for making casks to hold wine and other liquors, as it imparts no taste to the contents, and has the property of maintaining its bulk constantly, without shrinking or swelling, as most other timber is apt to do, which often causes casks to burst. It has also the quality of lasting

longer than elm, or any other timber, when used for water pipes, or other purposes, under ground.

The chesnut-wood has recently been successfully applied to the purposes of dyeing and tanning, thus forming a substitute for log-wood and oak bark. Leather tanned by it, is declared, by the gentleman who made the experiment, to be superior to that tanned with oak bark; and in dyeing, its affinity for wool is said, on the same authority, to be greater than that of either galls or sumach, and consequently the colour given is more permanent: it also makes admirable ink.

The great chesnut-tree, near Mount Etna, is perhaps one of the most extraordinary trees in the Old World. It is called "The chesnut-tree of a Hundred Horses," from the following traditionary tale: Jean of Arragon, when she visited Mount Etna, was attended by her principal nobility, when a heavy shower obliged them to take refuge under this tree, the immense branches of which sheltered the whole party. According to the account given of it by Mr. Howel, this chesnut-tree is 160 feet in circumference, and, although quite hollow within, the verdure of the branches is not affected; for this species of tree, like the willow and some others, depends upon its

bark for subsistence. The cavity of this enormous tree is so extensive, that a house has been built in it, and the inhabitants have an oven therein, where they dry nuts, chestnuts, almonds, &c. of which they make conserves; but as these thoughtless people often get fuel from the tree that shelters them, it is feared that this natural curiosity will be destroyed by those whom it protects.

HORSE-CHESNUT.—HIPPO- CASTANEUM.

Æsculus; in Botany, of the Class Heptan-
dria Monogynia.

THIS tree was first brought from the northern parts of Asia in 1588, and is now one of the greatest ornaments of our parks and plantations, particularly when in blossom.

The grand avenue of horse-chesnut-trees in Bushey Park, near Hampton-Court Palace, is the finest in England, and many parties go from London to see it when in full blossom.

There is a fine print of an old patriot of this neighbourhood, with the following inscription: "Timothy Bennet, of Hampton Wick, in Middlesex, Shoemaker, aged 75, 1752.—This true Briton, unwilling to leave the world worse than he found it, by a vigorous application of the laws of his country

in the cause of liberty, obtained a free passage through Bushey Park, which had many years been withheld from the people."

The fruit of the horse-chesnut-tree is ground, and given to the horses in Turkey, particularly to such as have coughs, or are broken-winded. The Turks also give it to milch cows, it being found to increase the quantity of milk, without injuring the quality. In France and Switzerland horse-chesnuts are used for the purpose of bleaching yarn, and are recommended as capable of extensive use in whitening, not only flax and hemp, but also silk and wool.

A patent was granted, in the year 1796, to Lord William Murray, for his discovery of a method of extracting starch from horse-chesnuts, and a paste or size has been made from them, which is preferred by bookbinders, shoemakers, and paper-hangers, to that made from wheaten flour. It is thought that the meal of this fruit can be converted into many useful articles, such as soap, &c.; and as it loses its bitter astringent taste after it has been rasped into water, it is concluded that it would be a wholesome food mixed with flour or potatoes. The prickly husks are valuable for tanning of leather.

Zannichelli affirms, that he has made a

great many trials, and has found the bark of the horse-chesnut-tree to have the same effect as the Peruvian bark.

This tree is of quick growth, and the timber has been thought of but little value, although it is in appearance so like the wain-scot oak, that none but those who are accustomed to work on these woods, can discern the difference.

COCOA-NUT.—COCOS.

*Natural Order, Palmæ; in Botany, a Genus
of the Monœcia Hexandria Class.*

THE cocoa-nut appears to have been known to the ancient Greeks, as I find the Macedonian soldiers, who accompanied Alexander the Great in his expedition into India, met with various Indian fruits, although they were not able to give the names of them. This nut was evidently one of the fruits they discovered; and their account of it has been faithfully transmitted to us in the twelfth book of Pliny's Natural History, chap. 6. "The fruit," he says, "is put forth at the bark, having within it a wonderful pleasant juice, and in such abundance, that one of them is sufficient to afford a competent refectation for four men." The Macedonians described the leaves as being of great size, resembling birds' wings.

From this period, which was about 325 years before Christ, little or nothing more was known of the cocoa-nut by the Europeans, for the space of 1823 years, when the discoveries of Columbus opening a wide field of speculation for the naturalist as well as the trader, this fruit became once more known to the Old World; but it is only of late years that the cocoa-nut has been brought to England as an article of commerce. It is now used by the West-India captains instead of wedges of timber, to fill up the vacua between the casks and other packages in their ships. The freightage of these large nuts is consequently considered as of no charge: they are therefore now become as common in the shops and in the streets of London, as the orange.

The cocoa-nut is the produce of a tree of the first importance to the Indians, as it furnishes them with meat, drink, physic, clothing, lodging, furniture, and fuel.

Chambers states, that many travellers aver, from the size and useful product of this tree, that from a single cocoa-nut tree and its fruit, a ship might be built, equipped, and laden with merchandise and provision.

It is supposed to be a native of the Maldivé, and some desert islands in the East

Indies, and from thence to have been transported to all the warmer parts of America. The largest cocoa-nut-trees grow on the river Oronooko, which reach to the height of sixty feet, and, bearing all their foliage at the top, produce a beautiful, waving, featherlike appearance.

The Spaniards call it *Palma de las Indias*, and the Portuguese *coco*, from the three holes in the shell, which give it the appearance of a monkey's head.

The kernel, or substance, which adheres to the interior of the shell of the cocoa-nut, is very nourishing, and is used instead of almonds in milks, emulsions, &c. These emulsions, when added to coffee instead of cream, give it an exquisite taste; excellent cakes and fritters are also made from the kernel, when rasped.

The tender shoots of this tree, when boiled, afford an excellent substitute for cabbage.

A large cocoa-nut will produce upwards of a pint of milk; and when young, it is esteemed one of the greatest dainties of America. As the fruit gets older, the milk becomes more sharp and cooling, consequently more agreeable to those of feverish habits. It is also esteemed highly anti-

scorbutic. Custards, blanc-mange, rice puddings, &c. are made with this milk.

An agreeable sweet oil, fit for the table, is procured, if the milk of the cocoa-nut be concentrated by ebullition over a moderate fire. The oil obtained from this nut by pressure is an excellent lamp oil, burning with a clear bright flame, without exhaling any odour or smoke. The substance from which this oil has been squeezed, is given to cattle, mixed with their forage, and greatly promotes the quantity of milk when given to cows.

A juice is obtained by tapping the trunk of this tree, or by cutting off the shoots which produce the nuts, and which is caught in jars attached to the trees. This liquor, after it has fermented, is distilled into a spirit called arrack, which is very superior to that drawn from rice: it also improves the flavour of rum when used in the distillation of that spirit. This juice, when exposed to the sun, produces vinegar.

The cocoa-nut-oil, composed with the emulsion, is a gentle purgative, without being nauseous or producing colic; it is also recommended in coughs, and complaints of the lungs.

The filings of the hard shell, applied to

old wounds, will cleanse and heal them rapidly.

In Maldivia, this nut is thought a powerful antidote against the venom of serpents and other poisons.

The milk is of the greatest importance in dyeing silks, cotton, or woollen stuffs, as it prevents black and other caustic colours from burning them, and gives a brilliancy to the colour. The emulsion of the kernel is used in the art of painting chintzes, and in scouring the cloth after the colours have been applied. The Hindoos procure their fine violet and rose colours by the assistance of this fruit.

The tough fibres or substance which encloses the shell, being steeped in water and beaten like flax, is then manufactured into linen.

The palms of this tree are made into mats for sleeping on; the leaves, which are of great length, are made into baskets, hammocks, mats, brooms, racks, &c. and are used for the thatching of houses: the trunk of the tree is employed for gutters, and split into laths for covering buildings, &c.

The shell of the fruit, when polished, is formed into basins, drinking cups, and a variety of useful articles.

The Emperors of Mogul highly esteemed the cocoa-nut for making goblets, which they have set with precious stones and edged with gold, believing that poison would lose its baneful qualities in these vases.

The cocoa-nuts have three holes closely stopped; one of these being both wider, and more easily penetrated than the rest: from this, when the nut is planted, rises the germen, or young tree, first having ramified, and filled the whole cavity of the nut; and then shoots out at the before-mentioned hole in the top, and soon appears above ground in two narrow leaves: through these holes likewise is the water copiously distilled into the nut from the roots: thus has nature wonderfully made an egress for the future tree.

M. Le Goux de Flaix, an officer of engineers, and a member of the Asiatic Society of Calcutta, in his account of the cocoa-nut-tree, says it is a well-known fact, that the fibrous covering of the cocoa-nut is converted into good ropes, which are useful in navigation and for various purposes on shore. Cables for anchors made of this substance are much better than those made of hemp. They are exceedingly elastic, stretch without straining the vessel, and scarcely ever break,

advantages which are not possessed by those of hemp. They are also lighter, and never rot in consequence of their being soaked with sea-water; nor do they exhale damp or miasmata, which are exceedingly hurtful to the crews of ships who sleep on the same deck where ropes are kept when ships are under sail. These ropes are also easier managed, and run better in the pulleys during nautical manœuvres.

Some time since a cocoa-tree was cut down on Mr. Hanson's land, in Jamaica, which had been planted about a century, when, in grubbing up the root, the shell from which the tree had been raised was found quite sound and perfect.

The cocoa-tree growing in Chili produces a fruit not larger than a walnut, but this is more esteemed than the large kind which is brought to England.

COFFEE.—COFFEA.

*In Botany of the Class Pentandria Monogynia ;
Natural Order, Stellatæ. It is named
after Caffa, in Africa, where it grows abundantly.*

THIS berry, which affords such a wholesome and agreeable beverage, is said to have been drunk from time immemorial in Ethiopia, but of this we have no authority ; and as the use of most plants has been accidentally discovered, it is probable that the properties of coffee might have been first perceived by a goatherd (as related by Chambers), who observed that his cattle, after browsing on this tree, would wake and caper all night, and that a prior of a monastery, being informed of it, first tried it on his monks, to prevent their sleeping at matins.

About the fifteenth century the use of coffee appears to have been introduced from Persia by Gemaleddin, Mufti of Aden, a

city near the mouth of the Red Sea. He, finding it dissipate the fumes which oppress the head, give cheerfulness, and prevent sleep, without injury, recommended it to his dervises, with whom he used to spend the night in prayer. It was soon after this drunk at Aden, by all studious persons and those who travelled by night. It was progressively used at Mecca, Medina, &c. and Grand Cairo: hence it continued its progress to Damascus and Aleppo. From the two latter places, it was introduced into Constantinople by persons of the name of Shems and Hekin, in the year 1554, each of whom opened a public coffee-house in that city. These coffee-houses becoming a rendezvous for newsmongers, who made too free with state affairs, were suppressed by Cuproli, the Grand Vizier.

Rauwolfus, who was in the Levant in 1573, was the first European author who made any mention of coffee.

The Venetians seem to be the next who used coffee. Pietro Della Valle, a Venetian, writes from Constantinople in 1615, informing his friend, that upon his return he should bring him some coffee, which he believed was a thing unknown in this country.

Lord Chancellor Bacon makes mention of it in 1624: he says, "the Turks have a drink they call coffee, made with boiling water from a berry reduced into powder, which makes the water black as soot, and is of a pungent and aromatic smell, and is drunk warm."

M. La Roque, who published his journey into Arabia Felix, in 1715, contends that his father having been with M. de la Haye, the French ambassador at Constantinople, did, when he returned to Marseilles, in 1644, drink coffee every day; but the same author acknowledges that it was M. Thevenot, who taught the French to drink coffee on his return from the East, in 1657. It was made fashionable and more known in Paris, in 1669, by Soliman Aga, ambassador from Sultan Mahomet the Fourth, who gave coffee at all his parties with great magnificence; and it could not fail being pronounced an agreeable beverage by the Parisian ladies, after they had received it from his slaves with bended knee. If it were a matter of policy with the Turks to get coffee introduced into France, the ambassador's splendid porcelain, equipage, and gold fringed napkins, were the best recommendation that could have been given to

a people who are so naturally fond of show.

Two years after, it was sold in public at the Foire St. Germaine, by Pascal, an Armenian, who afterwards set up a coffee-house on the Quai de l'Ecole; but not being encouraged in Paris, he left that city and came to London: however, soon after this, some spacious rooms were opened in Paris for the sale of coffee, and they soon increased to upwards of three hundred.

It is said to have been first brought to England by Mr. Nathaniel Conopius, a Cretan, who made it his common beverage, at Baliol College, at Oxford, in the year 1641, and that the first coffee-house in England was kept by one Jacob, a Jew, at the sign of the Angel in Oxford, in 1650. Coffee was first publicly known in London, in 1652, when Mr. Daniel Edwards, a Turkey merchant, brought home with him a Ragusan Greek servant, whose name was Pasqua Rossée, who understood the roasting and making of coffee, and kept a house for the purpose, in George Yard, Lombard Street, or rather, according to Mr. Houghton, in a shed in the Churchyard of St. Michael's, Cornhill. The famous Dr. Harvey used it frequently. Mr. Ray affirms that, in 1688,

London might rival Grand Cairo in the number of it's coffee-houses, so rapidly had it come into use; and it is thought that they were augmented and established more firmly by the ill-judged proclamation of Charles the Second, in 1675, to shut up coffee-houses as seminaries of sedition: this act was suspended in a few days.

The first mention of coffee in our statute books, is in 1660, (xii. Char. II. cap. 24.) by which, a duty of fourpence was laid upon every gallon of coffee bought or sold.

The Arabs seem to have been very jealous of letting this tree be known, and in order to confine the commodity to themselves, they destroyed the vegetable quality of the seeds; but Nicholas Witsen, burgomaster of Amsterdam and governor of the East-India Company, desired Van Hoorn, governor of Batavia, to procure from Mocha, in Arabia Felix, some berries of the coffee-tree, which were obtained and sown at Bataviã; and about the year 1690, several plants having been raised from seeds, Van Hoorn sent one over to Governor Witsen, who presented it to the garden at Amsterdam. It there bore fruit, which in a short time produced many young plants: from these the East Indies and most of the

gardens in Europe have been furnished. In 1696, it was cultivated at Fulham, by Bishop Compton, and in 1714, the magistrates of Amsterdam presented Louis the Fourteenth with a coffee-tree, which was sent to the royal garden at Marli. In 1718, the Dutch colony, at Surinam, began first to plant coffee; and in 1722, M. de la Motte Aignon, governor of Cayenne, contrived by an artifice to bring away a plant from Surinam, which, by the year 1725, had produced many thousands. The French authors affirm that it was planted in the Isle of Bourbon, in the year 1718, having been obtained from Mocha: this seems doubtful; but it is ascertained that M. Clieux carried the first coffee-plant to Martinico, in 1720. M. Fusée Aublet states that one tree only survived in the Isle of Bourbon, which bore fruit in 1720. From Martinico it spread to the neighbouring islands. Sir Nicholas Laws first introduced it into Jamaica, in the year 1728, and planted it at Townwell Estate, now called Temple Hall, in Liguanea: the first berries produced from this tree sold at a *bit* each, which is equal to 6d. In the year 1752 the export of coffee from Jamaica was rated at 60,000 lbs.; and it has continued regularly to increase since that time, except when additional duties

have been laid on, which have as regularly lessened the exports and the revenue also; an important proof, among others, how frequently heavy taxation defeats its own purpose.

In 1808, the exports from Jamaica were 29,528,273 lbs; the next year they were lessened about four millions of pounds; in 1812, the export was 18,481,986 lbs.

Every gentleman who has stoves should raise this tree for the beauty of its appearance. It is an evergreen whose leaves continue three years; and being of a fine dark green, make a beautiful contrast with the clusters of pure white blossoms, which perfume the air with an odour like jasmine. Nothing can be conceived more delightful and grateful than the appearance and perfume of a field of coffee-trees when in full bloom: it has the resemblance of a shower of snow, which nearly obscures the dark green branches. The tree, like the walnut, produces smaller fruit, and better flavoured, as it becomes older.

The Turkey coffee is the smallest berry, and is more esteemed for its flavour than that which grows in the West Indies. I conclude that one great cause of the American coffee being inferior in point of

flavour, is owing to the practice, in that part of the world, of gathering the berries before they are quite ripe, whereas the Arabians shake their trees, and by this means obtain the berries in full perfection. Mr. Lunan observes, that the West-Indian berries being considerably larger than those of the Turkey coffee, require much longer keeping; but Mr. Miller, the celebrated gardener, is of opinion, that coffee does not require long keeping, and that it loses a part of its flavour. He states that two gentlemen, who resided some years in Arabia, assured him that the berries, when first ripe, were very superior to those which had been kept: he also states, that from plants brought from the West Indies, and raised in English hot-houses, coffee-berries have been produced, which, at a proper age, were found to surpass the very best Mocha that could be produced in Great Britain. Jamaica coffee is often sold as Turkey coffee in London, and there have been many samples sent from thence, that have proved quite equal to any Arabian berries. As coffee readily imbibes the smell or flavour of any article it comes in contact with, it is often injured in the voyage home, by being stowed near sugar, rum, pimento, &c. &c.; and the flavour which it

thus contracts, cannot be separated again, even by roasting.

The most eminent physicians of every country have recommended the use of coffee for various complaints. It greatly relieves the head-ache, and is recommended to those of constitutional weak stomachs, as it accelerates the process of digestion, takes away languor and listlessness, and affords a pleasing sensation.

Coffee is often found useful in quieting the tickling vexatious cough. Sir John Floyer, who had been afflicted with the asthma for sixty years, was relieved by strong coffee.

The great use of coffee in France is supposed to have abated the prevalency of the gravel; for where coffee is used there as a constant beverage, the gravel and the gout are scarcely known.

Voltaire lived almost on coffee, and said nothing exhilarated his spirits so much as the smell of it; for which reason, he had what he was about to use in the day roasted in his chamber, every morning, when he lived at Fernai.

A friend writes me from Constantinople, that many of the Turks will subsist almost entirely on coffee, except during the rigid

fast of the Ramadan, or 'Turkish Lent, which lasts forty days; during which time they neither eat, drink, or smoke, while the sun is over the horizon; and the use of coffee is then so strictly forbidden, that those who have even the smell of coffee on them, are deemed to have violated the injunctions of their prophet.

Among the various qualities of coffee, that of it's being an antidote to the abuse of opium must make it an invaluable article with the Turks.

Those who use opiates at night would find the advantage of taking strong coffee in the morning.

An interesting analysis of coffee was made by M. Cadet, apothecary in ordinary to the household of Napoleon, when emperor; from which it appears, that the berries contain mucilage in abundance, much gallic acid, a resin, a concrete essential oil, some albumen, and a volatile aromatic principle, with a portion of lime, potash, charcoal, iron, &c. Roasting develops the soluble principles. Mocha coffee is, of all kinds, the most aromatic and resinous. M. Cadet advises that coffee be neither roasted nor infused till the day it be drunk, and that the roasting be moderate.

Dr. Moseley, in his learned and ingenious Treatise, states, that “ the chemical analysis of coffee evinces that it possesses a great portion of mildly bitter, and lightly astringent gummous and resinous extract, a considerable quantity of oil, a fixed salt, and a volatile salt. These are it’s medicinal constituent principles. The intention of torrefaction is not only to make it deliver those principles, and make them soluble in water, but to give it a property it does not possess in the natural state of the berry. By the action of fire, it’s leguminous taste, and the aqueous part of it’s mucilage, are destroyed ; it’s saline properties are created, and disengaged, and it’s oil is rendered empyreumatical. From thence arises the pungent smell, and exhilarating flavour, not found in it’s natural state.

“ The roasting of the berry to a proper degree, requires great nicety. If it be underdone, it’s virtues will not be imparted, and in use it will load and oppress the stomach : if it be overdone, it will yield a flat, burnt, and bitter taste ; it’s virtues will be destroyed, and in use it will heat the body, and act as an astringent. The closer it is confined, at the time of the roasting, and till used, the better will it’s volatile pungency, flavour, and virtues, be preserved.

“ The influence which coffee, judiciously prepared, imparts to the stomach, from it's invigorating qualities, is strongly exemplified by the immediate effect produced on taking it when the stomach is overloaded with food, or nauseated with surfeit, or debilitated by intemperance, or languid from inanition.

“ In vertigo, lethargy, catarrh, and all disorders of the head, from obstructions in the capillaries, long experience has proved it to be a powerful medicine; and in certain cases of apoplexy, it has been found serviceable even when given in clysters, where it has not been convenient to convey it's effects to the stomach. Mons. Malebranche restored a person from apoplexy by repeated clysters of coffee.

“ Du Four relates an extraordinary instance of the effect of coffee in the gout: he says, Mons. Deverau was attacked with the gout at twenty-five years of age, and had it severely until he was upwards of fifty, with chalk stones in the joints of his hands and feet: he was recommended the use of coffee, which he adopted, and had no return of the gout.

“ A small cup or two of coffee, immediately after dinner, promotes digestion.

„With a draught of water previously

drunk, according to the eastern custom, coffee is serviceable to those who are of a costive habit."

The generality of English families make their coffee too weak, and use too much sugar, which often causes it to turn acid on the stomach. Almost every housekeeper has a peculiar method of making coffee; but it never can be excellent, unless it be made strong of the berry, any more than our English wines can be good, so long as we continue to form the principal of them on sugar and water.

Count Rumford says, "Coffee may be too bitter; but it is impossible that it should ever be too fragrant. The very smell of it is reviving, and has often been found to be useful to sick persons, and to those who are afflicted with the head-ache. In short, every thing proves that the volatile, aromatic matter, whatever it may be, that gives flavour to coffee, is what is most valuable in it, and should be preserved with the greatest care, and that, in estimating the strength or richness of that beverage, its fragrance should be much more attended to, than either its bitterness or its astringency. This aromatic substance, which is supposed to be an oil, is extremely volatile, and escapes into

the air with great facility, as is observed by it's filling a room with it's fragrance, if suffered to remain uncovered, and at the same time losing much of it's flavour."

CRANBERRY.—VACCINIUM MACROCARPUM.

*In Botany, a Genus of the Octandria Monogynia
Class.*

THIS fruit, which is so much esteemed in tarts, or with cream, is a native of England, and is found growing in the peaty bogs of Sussex, Cumberland, Norfolk, Lancashire, and in other marshy lands. Gerard calls the fruit *fen-berries*: “they grow,” says he, “in fennie places, in Cheshire and Staffordshire, where I have found them in great plentie.” Valerius Cordus called them *orycoccon*; the Dutch term them *fen grapes*.

Dr. Withering states, that at Longton, in Cumberland, there is a considerable traffic carried on in cranberries; that on the market days, during the gathering season, the sale of these berries amounts to from twenty to thirty pounds sterling per day: many people in

that neighbourhood make wine from cranberries; but never having tasted this liquor, I can give no account of it's quality. The English cranberries, which are preserved in bottles with no other care than keeping them dry, are very superior to those large cranberries imported from the northern parts of America, which are now so common in the shops of London. These berries, being packed in large casks, must undergo a fermentation during the voyage, which consequently deprives them of a part of their natural flavour. Cranberries are also imported from Russia and Germany; and during this last year great quantities have been brought from New Holland, which are smaller, and darker coloured, than those brought from America, and very superior in flavour. Cranberries are found growing in many parts of Spain and Hungary. They are the produce of damp swampy lands only: but the idea that they will not bear transplanting, is erroneous, the late Sir Joseph Banks having planted some near a pond in his grounds at Spring Grove, which have produced fruit beyond calculation. This information may be worth the attention of those who have marshy or brook land, as a matter of profit; and to those who have ornamental water in their gardens or

parks, it would be found an embellishment to the banks; it being an elegant little fruit on the ground, where it trails, and spangles the grass with its red and variegated berries.

Sweden produces abundance of cranberries, but they are only used for cleansing plate in that country.

A new species of cranberry is now cultivated in this kingdom, which has been called snowberry, on account of the colour of the fruit: it was brought from Nova Scotia in the year 1760 by Mr. Jonathan Laycock, and is stated to be found in the swamps of Cyprus also. This berry has a perfumed taste, like *eau de noyau*, or bitter almonds: it is reared by Mr. Joseph Knight, of Little Chelsea, and several other nurserymen near the metropolis. Another variety was brought from Madeira in 1777, which requires the shelter of the greenhouse; and the Jamaica cranberry, which was introduced the following year, will not thrive in this country, except in the stove.

Cranberries are of an astringent quality, and esteemed good to restore the appetite: they were formerly imagined efficacious in preventing pestilential diseases.

CUCUMBER.—CUCUMIS.

In Botany, a Genus of the Monœcia Syngenesia Class.

THE cucumber, which is one of the coldest fruits, is evidently a native of a warm climate; and by all the researches I have been able to make, I conclude it belongs to the soil of some parts of Asia and Africa. It was known to the Grecians, as their earliest writers on natural history have mentioned it, and in particular recommend that the seeds should be steeped for two days in milk and honey before they are set, to make the fruit sweeter and pleasanter. Pliny mentions the great quantities that grew in some parts of Africa, and particularly in Barbary. All vegetables are so formed as to perpetuate themselves by seed in the climate where they originate; for if this was not the case, every species of plant that is not

cultivated, would soon cease to exist; and the cucumber has never been found to grow in the natural state in any part of Europe.

Columella is the oldest author who gives any direction for forwarding cucumbers by artificial means. "Those who wish for them early," says he, "should plant the seeds in well dunged earth, put into osier baskets, that they may be carried out of the house, and placed in warm situations when the weather permits; and as soon as the season is advanced, the plants may be sunk in the earth with the baskets, or wheels may be put upon large vases, that they may be brought out with less labour; notwithstanding they ought," continues he, "to be covered with *specularia*," which seem to have been transparent stones, that the Romans were in the habit of cutting thin, so as to admit light, and keep out the air, glass being unknown at that period.

It is related by Pliny, "that Tiberius the emperor was so fond of cucumbers, and took such pleasure and delight in them, that there was not a day, throughout the year, passed over his head, but he had them served up at his table. The beds and gardens wherein they grew, were made upon frames, so as to be removed every way with

wheels ; and in winter, during the cold and frosty days, they could be drawn back into certain high covered buildings, exposed to the sun, and there housed under roof." These appear to be the earliest accounts of the forcing of plants which we read of in ancient times. It is probable, also, that artificial heat was used ; as we find, by the remains of their villas in this country, how perfectly the Romans were acquainted with the method of warming their rooms with flues.

Pliny says, "To make a delicate salad of cucumbers, boil them first, then peel them from the rind, and serve them up with oil, vinegar, and honey."

Mr. Aiton mentions the cucumber as being first cultivated here in the year 1573, in the reign of Queen Elizabeth. This appears to be an error, as cucumbers were very common in this country in the reign of Edward the Third ; but being unattended to during the wars of York and Lancaster, they soon after became entirely unknown, until the reign of Henry the Eighth, when they were again introduced to this kingdom. (*Gough's British Topography, vol. I. p. 134.*)

Gerard gives the earliest directions for making hot beds for cucumbers in this

country, which was in 1597, when gardening was in it's infant state. He directs, that they should be covered with mats over hoops, as glasses were not then known.

Lord Bacon, who wrote about the same period, says, " cucumbers will prove more tender and dainty if their seeds be steeped (little) in milk : the cause may be, for that the seed being mollified in milk, will be too weak to draw the grosser juices of the earth, but only the finer:" he adds, " cucumbers will be less watery if the pit where you set them be filled up half way with chaff or small sticks, and then pour earth upon them; for cucumbers, as it seemeth, do exceedingly affect moisture, and over-drink themselves, which this chaff or chips forbiddeth." This great author also states, that " it hath been practised to cut off the stalks of cucumbers, immediately after bearing, close by the earth; and then to cast a pretty quantity of earth upon the plant that remaineth, and they will bear the next year fruit, long before the ordinary time. The cause may be, for that the sap goeth down the sooner, and is not spent in the stalk or leaf, which remaineth after the fruit; where note, that the dying in the winter of the roots of plants that are annual, seemeth to be partly caused by the

over-expenditure of the sap into stalk and leaves; which being prevented, they will superannuate, if they stand warm." Miller informs us, that the cuttings of cucumbers, taken off about five or six inches long, from healthy plants in the summer crop, at the end of September or beginning of October, planted in pots of rich mould, plunged into the bark bed and shaded until they have struck, will produce fruit before Christmas. It is also recorded in Miller's Gardener's Dictionary, that Thomas Fowler, gardener to Sir Nathaniel Gould, at Stoke Newington, presented King George the First with a brace of well-grown cucumbers, on New Year's Day, 1721. The seeds from which they were raised were sown on the 25th of September.

His late revered Majesty had his table supplied with cucumbers, at all seasons of the year, by Mr. Aiton, under whose care the Royal Gardens of this kingdom have produced, in the highest perfection, nearly all the known fruits of the world.

Cucumbers are much less used in their natural state than formerly, among wealthy families, but they are in great request for stews and made dishes, and when preserved they are esteemed one of the most agreeable sweetmeats. As a pickle, gherkins have been long admired;

but whoever purchases them, should be careful to get them free from any substance that may have been used to colour them.

Lunan, in his account of the *sativus*, or cultivated cucumber, says, “although cucumbers are neither sweet nor acid, they are considerably acescent, and so produce flatulency, cholera, diarrhœa,” &c. Their coldness and flatulency may be likewise in part attributed to the firmness of their texture.

They have been discharged, with little change, from the stomach, after having been detained there for forty-eight hours. By this means, therefore, their acidity is greatly increased; hence oil and pepper, the condiments commonly employed, are very useful to check their fermentation. Another condiment is sometimes used; *viz.* it's skin, which is bitter, and may therefore supply the place of aromatics; but it should only be used when young.

Brookes states, that the cucumber is unfit for nourishment, and is generally offensive to the stomach, especially if not corrected with a good deal of pepper as well as vinegar. The seeds, he states, are reckoned among the four greater cold seeds, therefore emulsions of them have been prescribed in burning fevers, &c.

Cowper has beautifully described the method

To raise the prickly and green coated gourd,
 So grateful to the palate; and when rare,
 So coveted; else base and disesteem'd,
 Food for the vulgar merely.

The Rev. Griffith Hughes, in his Natural History of Barbadoes, mentions the wild cucumber-vine as indigenous to that part of the world. It is called by Father Plumier, *anguria fructu echinato eduli*: he describes the fruit as a small cucumber, whose surface is covered with many soft pointed prickles: it is sometimes eaten; but is esteemed to be of too cold a nature to be wholesome.

Lunan, in his Hortus Jamaicensis mentions the small wild cucumber as being a native of Jamaica, where it grows very plentifully, and is often used with other herbs in soups, and is a very agreeable ingredient: the rind is thickly beset with blunt prickles. Sloane mentions it as a pale green oval fruit, as big as a walnut, and says it is eaten very greedily by sheep and cattle.

The ancients used the wild cucumber as a sovereign remedy in various complaints. "The best kind," says Pliny, "was found in Arabia, and the next about Cyrene and Arcadia."

It was from the juice of these cucumbers that they procured the medicine called *elaterium*, which, Theophrastus states, could be kept good two hundred years; and for fifty years it would be so strong and full of virtue, that it would put out the light of a candle or lamp. Pliny says, “to try good elaterium, it is set near to a lighted candle, which it causes to sparkle upwards and downwards.”

Elaterium was used not only as a purgative, but against the sting of scorpions, and for the dropsy: with honey and oil, it was used for the quinsy and diseases of the windpipe: it was said to cure dimness and other imperfections of the eyes, the ring-worm, tetter, &c. as well as the swelling kernels behind the ears.

The juice of wild cucumber leaves dropped with vinegar into the ears, was thought a good remedy for deafness. A decoction of the fruit being sprinkled in any place, will drive away mice; it was also said to cure the gout, &c.; indeed, so many virtues were attributed to it by the ancients, that if we were inclined to give credit to them, it would cause our wonder to find they had any complaint uncured.

The Romans had also many superstitious opinions respecting these wild cucumbers.

Wives who wished for children wore them tied round their bodies; and they were brought into houses by the midwife, but carried out, in the greatest haste, after childbirth.

Columella has recorded a variety of wonderful stories respecting the garden-cucumber; and some English authors, of great celebrity, have stated, that when a cucumber vine is growing, if you set a pot of water, about five or six inches distance from it, it will shoot so much in twenty-four hours as to touch it: but that it will shrink from oil, and turn fairly away from it.

————— The gourd

And thirsty cucumber, when they perceive
Th' approaching olive, with resentment fly
Her fatty fibres, and with tendrils creep
Diverse, detesting contact.

Phillips.

CURRENT-TREE.—RIBES.

*In Botany, a Genus of the Pentandria
Monogynia Class.*

THIS agreeable and wholesome fruit is undoubtedly a native of our country: it was formerly found growing in the wild state, in woods and hedges in Yorkshire, Durham, and Westmorland, as well as on the banks of the Tay and other parts of Scotland. As a further proof of its being a northern fruit, we have no account of its having been at all known to the ancient Greeks or Romans, who have been very accurate in describing all the fruits known in their time. It seems not to have grown so far south as France; for the old French name of *groseilles d'outremer* evidently bespeaks it not to have been a native of that country, and even at the present time their language has no appropriate

name for it distinct from the gooseberry. The Dutch also acknowledge it not to have been indigenous to Holland, where it was called *besskins over zee*. Whether the Dutch first procured this fruit from Britain, or from any other northern countries, we must acknowledge ourselves indebted to the gardeners of that country for so improving the size, if not the flavour of this fruit.

The English name of currant seems to have been taken from the similitude of the fruit to that of the small Zante grapes, which we call currants, or Corinths, from Corinth, where this fruit formerly grew in great abundance, and which are so much used in this country for cakes, puddings, &c.

The Italians seem to have no other name for the currants than *uvette, little grapes*. At Geneva they are called *raisins de Mars*. The currant does not appear in the list of fruits published by Thomas Tusser in 1557, which I have transcribed to shew what fruits were cultivated in the latter part of Queen Mary's reign.

Apples of all sorts, apricots, barberries; boollesse, black and white; cherries, red and black; chesnuts; cornet plums; damisens, white and black; filberts, red and white; gooseberries; grapes, white and red; green

or grass plums; hurtil berries; medlers, or meles; mulberries; peaches, white and red; peeres of all sorts; peer plums, black and yellow; quince-trees; raspis; reisons; small nuts; strawberries, red and white; service trees; wardens, white and red; walnuts; wheat plums.

Currants were not distinguished from gooseberries by any particular name at that period; and even in Gerard's time, they were considered as a species of the gooseberry. He says, in his account of the latter fruit, "We have also in our London gardens another sort altogether without prickles, whose fruit is verie small, lesser by much than the common kinde, but of a perfect red colour, wherein it differeth from the rest of his kinde."

Lord Bacon, who wrote about fifty years after Tusser, has noticed them: he says, "The earliest fruits are strawberries, cherries, gooseberries, *corrans*, and after them early apples, early pears, apricots, rasps, and after them damisons, and most kinds of plums, peaches, &c.; and the latest are apples, wardens, grapes, nuts, quinces, almonds, sloes, brierberries, hops, medlers, services, cornelians, &c."

Currants are a fruit of great importance in this country: they are so easily propa-

gated, that every cottage gardener can rear them; and they are likewise so regular in bearing, that it is seldom they are injured by the weather. At the dessert, they are greatly esteemed, being found cooling and grateful to the stomach; and they are as much admired for their transparent beauty, as for their medicinal qualities, being moderately refrigerant, antiseptic, attenuant, and aperient. They may be used with advantage to allay thirst in most febrile complaints, to lessen an increased secretion of bile, and to correct a putrid and scorbutic state of the fluids, especially in sanguine temperaments: but in constitutions of a contrary kind, they are apt to occasion flatulency and indigestion. Brookes says, they strengthen the stomach, excite appetite, and are good against vomiting.

Besides the red and the white currant, the salmon colour, or champaigne, is cultivated for variety. The currant is a fruit that will ripen early, when planted in a warm situation, and may be retarded so as to be gathered in good condition in the month of November, when they are planted in a northern aspect: thus, with care, a skilful gardener will furnish a dessert of this fruit for six months, without the aid of artificial heat.

Currants will keep for years in bottles, retaining all their qualities for tarts, &c. if they are gathered perfectly dry, and not too ripe. They only require to be kept from the air, and in a dry situation. I have found it an advantage to pack them in a chest, with the corks downwards; and if the vacua be filled up with dry sand, it would insure their preservation.

The red currant gives the finest flavour for jelly.

The wine made from the white currants, if rich of the fruit, so as to require little sugar, is, when kept to a proper age, of a similar flavour to the Grave and Rhenish wines; and I have known it preferred as a summer table wine. Even in London this agreeable beverage may be made at less expence than moderate cider can be bought for. Diluted in water, this wine is an excellent drink in the hot season, particularly to those of feverish habits. It makes an excellent shrub; and the juice is a pleasant acid in punch; which, about thirty years back, was a favourite beverage in the coffee-houses in Paris.

The best English brandy I have tasted, was distilled from weak currant wine, by a gentleman at Windsor; and I have no doubt

but it could be made superior to the common brandies, imported from France, were it encouraged, and certain restrictions taken from the distiller.

The black currants, which were formerly called *squinancy berries*, on account of their great use in quinsies, are natives of Sweden and the northern parts of Russia, as well as the northern counties of England, where they have been found in their natural state, growing in alder swamps, and in wet hedges by the banks of rivers. In some parts of Siberia, the black currants are said to grow to the size of hazel-nuts. The inhabitants of that country make a drink of the leaves: in Russia a wine is made of the black currants; and it is also made in some parts of England.

The jelly made from these currants is recommended in most complaints of the throat: they are also esteemed cleansing, pellent, and diuretic: an infusion of the roots is useful in fevers of the eruptive kind.

The inner bark of all the species of the currant tree, boiled in water, is a popular remedy in jaundice; and some medical men have recommended it in dropsical complaints.

The currant-tree that was brought from

the isle of Zante, by our Levant traders, and first planted in England in the year 1533, I conclude was the vine that produces the small grapes which we call currants, and of which the English use more than all the rest of the world together. This fruit grows in great abundance in several places in the Archipelago. We have a factory at Zante, from whence we import them so closely pressed by treading, that they are often obliged to be dug out with an iron instrument, the natives thinking we use them as a dye.

Currant trees produce their fruit on small snags, that come out of the former year's wood: in pruning, care should be taken not to injure that part; but the shoots may be shortened or thinned as soon as the leaves are off. They require least room, and have a neat appearance, in private gardens, when planted as espaliers; and the fruit is thought to ripen better.

DATE.—DACTYLUS.

*A Species of the Palma, or Palm Tree.—
Date Tree, Phœnix Dactylifera. In Bo-
tany, of the Diœcia Triandria Class.*

THE palm-tree is a native of the eastern countries, and has been known to grow in the deserts of Arabia and Syria from the earliest ages. Dates appear to have been the first food which the Israelites found in the wilderness of Shur. “And they came to Elim, where were twelve wells of water, and threescore and ten palm-trees; and they encamped there by the waters.” (Exodus, chap. xv. verse 27.) The ancients esteemed dates next to the vine and olive.

The palm-trees are very lucrative to the Arabs and other inhabitants of the desert, where the fruit forms a principal part of their food, particularly in all that part of the Zaara which is near Mount Atlas, where they grow but little corn, and chiefly depend

on this fruit for subsistence. In this part of the world, forests of date-trees may be seen, some of which are several leagues in circumference. The Grecian and Roman authors have given full accounts of this fruit. It is related that Alexander's army having met with dates of such a delicious quality, many, who could not forbear eating too plentifully, died. There is one kind of date described by the ancient authors, that would inebriate and overturn the brain.

The Babylonian, or Royal Dates, were most esteemed: these, in ancient times, were reserved for the kings of Persia, and are said to have grown only in one hortyard or park at Babylon, which was annexed to the Persian crown. The dates at Jericho, in Jewry, were also in high estimation with the ancients, who made both bread and wine of them. Pliny, who has written at great length upon this fruit, mentions forty-nine kinds of dates, varying according to the country where they grew; some of which were white, black, or brown, some were round, others in the shape of a finger, some very small, and others he describes as being as large as the pomegranate. One species of the date, the Lotus, was much cultivated

in Italy, and is by some supposed to be the fruit by which the companions of Ulysses were enchanted, and forgot their native country.

Italy, and the coast of Spain, have been renowned for palm-trees more than two thousand years: "but the dates," says Pliny, "never come to maturity or ripeness, nor were they ever known to grow without being planted:" this caused him to state that they were foreign trees.

The Arabs eat dates without seasoning, for they have a very agreeable taste when they are fresh, and afford wholesome nourishment. These people dry and harden them in the sun, to reduce them to a kind of meal, which they preserve for food when they undertake long journeys across the deserts; and they will subsist a considerable time on this simple nourishment: pieces of the date-bread diluted in water afford a refreshing beverage. The Arabs likewise strip the bark and fibrous parts from the young date-trees, and eat the substance that is in the centre. It is very nourishing, and has a sweet taste, and they call it the marrow of the date-tree: they also eat the leaves when they are young and tender, mixed with lemon-juice, as a salad. The male flowers are also

eaten, when tender, in the same manner. The fruit before it is ripe is somewhat astringent, but when thoroughly mature, is of the nature of the fig. A white liquor, known by the name of date-milk, is drawn from the palm-tree. To obtain it, all the branches are cut from the summit of one of these trees; and after several incisions have been made in it, they are covered with leaves, in order that the heat of the sun may not dry it: the sap then drops into a vessel placed to receive the liquor. The milk of the date-tree has an agreeable sweet taste when new: it is very refreshing, and is given even to sick people. Thus has Providence reared a blessing in the sandy desert for the wanderer.

Even the stones of dates, though very hard, are not thrown away: they are bruised and laid in water to soften, when they become good food for sheep and camels.

The Egyptians make an agreeable conserve of the fresh dates and sugar. The Arabs weave mats and other things of the same kind from the old leaves; and from the filaments which arise from the stumps of the branches, they fabricate both ropes and sails.

Among the trees of Egypt, there is none

more common than the date-tree, both on the sands as well as on the cultivated districts. It requires no attention, and is very profitable, the fruit being in great demand, particularly that in the neighbourhood of Rosetta, which is delicious. The branches are cut off with the dates upon them before they are thoroughly ripe, and thrust into baskets made for the purpose, which have no other aperture than a hole, through which the branches project. The dates thus packed up, ripen in succession, and boats are laden with them, and sent to Cairo.—Could they not be brought to England in this state?

The timber is so durable, that it is thought incorruptible by the natives. It is used for making beams and implements of husbandry, as also for javelins, and the trees often grow to a hundred feet in height. There are but few trees which are used for so many valuable purposes, and I know of none where the sexual distinctions are so evident. It is the female tree which produces the fruit, and on which account it is cultivated in greater numbers; but in order to obtain the fruit, the orientalist, who live upon it, plant male trees also; and it is no uncommon practice for their enemies, in time of war, to cut down the male trees, which prevents

the others from producing dates, and causes famine. The number of female trees cultivated in Asia, is much greater than that of the males, the former being more profitable.

The sexual organs of the date-tree grow upon different stalks; and when they are in flower, the Arabs cut the male branches to impregnate the female blossoms: for this purpose, they make incisions in the trunk of each branch which they wish to produce fruit, and place in it a stalk of male flowers: without this precaution, the date-tree would produce only abortive fruit. In some parts the male branches are only shaken over the female blossoms. This practice was known to the ancients, and is accurately described by Pliny, who says, "if the male tree be cut down, *his wives* will afterwards become barren, and bear no more dates, as if they were widows. So evident is the copulation of the sexes in the date-trees," says he, "that men have devised to make the females fruitful, by casting upon them the blooms and down that the male tree bears, and sometimes by strewing the powder which he yields upon them."

Linnæus, in his Dissertation on the Sexes of Plants, speaking of the date-tree, says,

“ A female date-bearing palm, flowered many years at Berlin, without producing any seeds ; but the Berlin people, taking care to have some of the blossoms of the male tree, which was then flowering at Leipsic, sent them by the post ; they obtained fruit by these means ; and some dates, the offspring of this impregnation, being planted in my garden, sprung up, and to this day continue to grow vigorously.”

Père Labat, in his Account of America, mentions a tree which grew near a convent in Martinique, that produced a great quantity of fruit, which came to maturity enough for eating : but as there was no other tree of the kind in the island, it was desirable to propagate it, but none of the seeds would grow. He conjectures that the tree might probably be so far impregnated by some neighbouring palm-tree, as to render it capable of bearing fruit, but not sufficient to make the seeds prolific.

M. Geoffrey cites a story from Jovicus Pontanus, who relates, “ that, in his time, there were two palm-trees, the one a male, the other a female, in the wood Otranto, fifteen leagues apart ; that this latter was several years without bearing any fruit ; till at length, rising above the other trees of

the forest, so as it might see," says the poet, "the male palm-tree at Brindisi, it then began to bear fruit in abundance." M. Geoffrey makes no doubt but that the tree then only began to bear fruit, because it was in a condition to catch on it's branches the farina of the male brought thither by the wind.

It may appear to many persons almost incredible, that the pollen of the male flower should be conveyed to so great a distance; but that it should be attracted by a tree of it's own species, will not create so much our wonder, when, with the least reflection, we must be satisfied that the glutinous moisture on the stigmata of flowers, has an attraction for the pollen of the anthera of it's kind only; else, when a variety of flowers were blossoming at the same time, we should have the rose impregnating the lily, and the wheat giving it's generating powder to the poppy. All animals and insects, when left to nature, couple with their kinds. Vegetables do the same, although it is now clearly ascertained that it is possible to make the stigma of one blossom receive the pollen of another, if it is prevented from taking that of it's own species; and thus we have within these last few

years so great a variety of new flowers and fruits.

The date-tree grows very rapidly, and will produce fruit in some countries in the third year, while in others it is from four to six years before it begins to bear: when arrived at maturity, it makes no change, but remains in the same state for three generations, according to the account of the Arabs. Like most other fruits, the date requires cultivation to have it good, as the fruit which is produced from trees which have been raised from seed is poor and ill-tasted, while those trees which are reared from the shoots, give dates of a good quality.

The flowers of both sexes come out in very long bunches from the trunk between the leaves, and are covered with a spatha which opens and withers: those of the male have six short stamina, with narrow four-cornered anthers filled with farina. The female flowers have no stamina.

Dates are imported into this country in a dried state, similar to dried figs: when in good condition, they are much esteemed, and fetch a high price. At the present time, they are sold for five shillings the pound, although inferior kinds may be

bought much cheaper for medicinal purposes, for which they are principally used in England, being considered hard of digestion, and often causing the head-ache to those who eat them in quantities, and they create scorbutic complaints as well as the loss of teeth. In medicine, the qualities of dates are to soften the asperities of the throat, to assuage all immoderate fluxes of the stomach, and to ease disorders of the reins, &c. The oil and phlegm render them moistening and good to assuage coughs. They stop vomitings and fluxes, and are good for the piles when taken in red wine. (*Barham.*)

They are principally brought from Africa, Egypt, and Syria, but the finest come from Tunis.

Near Elete, in Spain, there is a wood consisting of two hundred thousand palm-trees, bearing dates. These trees furnish a curious traffic: the branches of them are bound up in mats to bleach the leaves, which in time become white; they are then cut off, and sent in ship-loads to Genoa and other parts of Italy, for the grand procession of Palm Sunday. There is a great trade in them with Madrid also, where every house has it's blessed palm-branch. The

dates seldom ripen so thoroughly as to keep well.

Hughes, in his Natural History of Barbadoes, speaking of the date-tree, says, "The straightest and youngest branches, which grow near the summit of the tree, are much used here by the Jews, upon their Feast of Tabernacles: these they usually gild, and adorn with various flowers, and then carry them in procession to their synagogue." He adds, "whether this is the same kind of palm that was used by the Israelites, we know not, or whether it is not here succedaneously used as bearing the nearest resemblance to it."

ELDER.—SAMBUCUS.

*In Botany, a Genus of the Pentandria
Trigynia Class.*

THE common elder-tree is a native of England, and is found also in most parts of Europe, as it will grow on any soil, and in situations where few other trees would live.

The elder thrives near wet ditches, and is often seen growing on the ruins of old walls, or from the hollow of decayed trees: so hardy is this valuable and neglected tree, that it is found both in sheltered swamps and on the bleak tops of church towers.

The elder does not appear to have been used medicinally by the ancients, but the berries were employed by the Romans to dye the hair of the head black. If they be boiled in water, says Pliny, they are as good and wholesome to be eaten as other pot-herbs.

Sir J. E. Smith has remarked, that this

tree is, as it were, a whole magazine of physic to rustic practitioners.

The bark, leaves, flowers and berries, are used with advantage in medicine. The leaves are said to be purgative and emetic, and are applied externally for the piles and inflammations; an ointment is made also with them as well as the flowers: the latter are used inwardly as a carminative. Infusions made from the flowers while fresh, are gentle, laxative, and aperient; when dry, they are found to promote the cuticular secretion, and to be particularly serviceable in erysipelalous and eruptive disorders. Sydenham directs three handfuls of the inner bark to be boiled in a quart of milk and water, till only a pint remains, of which one half is to be taken at night and the other in the morning; and this repeated every day for those afflicted with the dropsy. Boerhaave recommends the expressed juice of the middle bark, given from a drachm to half an ounce, as the best of hydragogues when the viscera are sound.

Elder-flower water, the oil of elder, and elder syrup, are all used as medicines.

The berries are esteemed cordial, and useful in hysteric disorders; and are often put into gargarisms for sore mouths and throats.

The fungous excrescences, which are often found growing on the trunk of the elder-tree, bearing the resemblance of an ear, black in the inside and of a whitish colour on the outside, (called *auriculæ Judæorum*) are accounted good for inflammations and swellings of the tonsils, sore throats, and quinsies.

The wine made from elder-berries is too well known by families in the country to require any encomiums: it is the only wine the cottager can procure, and, when well made, is a most excellent and wholesome drink, taken warm before going to bed. It causes gentle perspiration, and is a mild opiate; and may be taken safely, and with advantage, by those of costive habits.

If a rich syrup be made from ripe elder-berries and a few bitter almonds, when added to brandy it has all the flavour of the very best cherry-brandy.

The white elder-berries, when ripe, make wine, much resembling rich grape-wine.

The buds and the young tender shoots are greatly admired as a pickle.

The leaves of the elder-tree are often put into the subterraneous paths of moles, to drive those noxious little animals from the garden. If fruit-trees, flowering shrubs, corn, or other vegetables, be whipped with the

green leaves of the elder branches, insects will not attach to them. An infusion of these leaves in water is good to sprinkle over rose buds, and other flowers, subject to blights and the devastations of caterpillars.

The wood of old elder-trees is so hard, and takes so good a polish, that it is often used as a substitute for the box-tree. From its toughness, it is used for tops for fishing rods, needles for weaving nets, butchers' skewers, &c. I find it was used by the Romans to make pipes and trumpets, as Pliny says, "the shepherds were thoroughly persuaded that the elder-tree, growing in a by-place out of the way, and where the crowing of cocks from any town cannot be heard, makes more shrill pipes and louder trumpets than any other."

FIG.—FICUS.—CARICA.

Natural Order, Scabridæ. In Botany, a Genus of the Polygamia Triacia Class.

THE fig-tree is evidently a native of that part of Asia, where the garden of Eden is generally said to have been situated, as it is the only tree particularly named in those passages of the Bible which relate to the creation and fall of man. “And they sewed fig-leaves together, and made themselves aprons.” It is a fruit that appears to have been highly esteemed by the Israelites, who brought figs out of the land of Canaan, when they were sent by Moses to ascertain the produce and strength of that country.

The fig-tree is often mentioned, both in the Old and New Testament, in a manner to induce us to conclude that it formed a principal part of the food of the Syrian nation. In the 25th chapter of the first book of

Samuel, we read, that when Abigail went to meet David, to appease him for the affront given by Nabal her husband, she took with her, amongst other provisions, a present of two hundred cakes of figs.

When Lycurgus banished luxury from Sparta, and obliged the Spartan men to dine in one common hall, to enforce the practice of temperance and sobriety, every one was obliged to send thither his provisions monthly, which consisted of about one bushel of flour, eight measures of wine, five pounds of cheese, and two pounds and a half of figs.

The Athenians were so choice of their figs, that it was forbidden to export them out of Attica. Those who gave information of this fruit being sold contrary to law, were called *sykophantai*, from two Greek words signifying the discoverers of figs; and as they sometimes gave malicious information, the term was afterwards applied to all informers, parasites, liars, flatterers, impostors, &c. from whence the word *sycofant* is derived.

The story of Romulus and Remus being suckled by a wolf under a fig-tree, proves that this fruit must have been early known in Italy.

The Egyptians and Greeks held this fruit

in great estimation : it was their custom to carry a basket of figs next to the vessel of wine used in the Dionysia, or festivals in honour of Bacchus ; and it is related to have been the favourite fruit of Cleopatra, who was the most luxurious queen the world ever produced. The asp with which she terminated her life, was conveyed to her in a basket of figs.

Saturn, one of the Roman deities, was represented crowned with new figs ; he being supposed to have first taught the use of agriculture in Italy. There was a temple in Rome dedicated to this god, before which, grew a large fig-tree. The Vestals, when they removed this tree in order to build a chapel on the spot, offered an expiatory sacrifice : this happened about two hundred and sixty years after the foundation of the city.

The fig was a fruit much admired by the Romans, who brought it from most of the countries they conquered, and had so increased the varieties in Italy, by the commencement of the Christian era, that Pliny has furnished us with a description of twenty-nine sorts that were familiar to him. He says, “ figs are restorative, and the best food that can be taken by those who are brought low by long sickness, and are on the recovery.”

He adds, "that figs increase the strength of young people, preserve the elderly in better health, and make them look younger, and with fewer wrinkles. They are so nutritive, as to cause corpulency and strength: for this cause," continues he, "professed wrestlers and champions were in times past fed with figs." This naturalist mentions the African figs as being admired; but says, "it is not long since they began to grow figs in Africa."—These appear to have been of an early kind; for we find when Cato wished to stimulate the senators to declare war against Carthage, he took an early African fig in his hand; then, addressing the assembly, he said, "I would demand of you how long it is since this fig was gathered from the tree?" and when they all agreed that it was fresh gathered, "Yes," answered Cato, "it is not yet three days since this fig was gathered at Carthage; and by it, see how near to the walls of our city we have a mortal enemy." With this argument he prevailed upon them to begin the third Punic war, in which Carthage, that had so long been a rival to Rome, was utterly destroyed. "The Lydian figs," says Pliny, "are of a reddish purple colour; the Rhodian, of a blackish hue; as is the Tiburtine, which ripens before others. The

white figs were from Herculaneum, Albicerate, and Aratian; the Chelidonian figs are the latest, and ripen against the winter: some bear twice a year, and some of the Chalcidian kind bear three times a year." The Romans had figs from Chalcis and Chios, &c.; and many of their varieties, it appears, were named from those who first introduced or cultivated them in Italy. The Livian fig was so named after Livia, wife to the Emperor Augustus, who, it is said, made an unnatural use of it to poison her husband.

If the fig-tree was ever brought to this country by the Romans, it was, in all probability, confined to the southern counties; and not being generally cultivated, was destroyed when their villas were demolished. It is generally supposed that it was not planted in England before the reign of Henry the Eighth, when luxury and the arts began to be encouraged, and noblemen's houses first put on the air of Italian magnificence. There are, at the present time, some fig-trees, of the white Marseilles kind, growing in the garden of the Episcopal Palace, at Lambeth, which are said to have been planted by Cardinal Pole, who brought them from Italy during the reign of Henry the Eighth. There is also a fig-tree of the white sort, at Mitcham,

in the garden of the manor-house, formerly the private estate of Archbishop Cranmer; and it is confidently stated to have been planted by that prelate: the stem measures thirty inches in girth.

At Oxford, in the botanic garden of the Regius Professor of Hebrew, is a fig-tree, which was brought from the East, and planted by Dr. Pocock, in the year 1648. Of this tree, the following anecdote is related: Dr. Kennicott, the celebrated Hebrew scholar and compiler of the Polyglot Bible, was passionately fond of this fruit; and seeing a very fine fig on this tree that he wished to preserve, wrote on a label, "Dr. Kennicott's fig," which he tied to the fruit. An Oxonian wag, who had observed the transaction, watched the fruit daily, and when ripe, gathered it, and exchanged the label for one thus worded: "A fig for Dr. Kennicott."

We may conclude that the fig-trees, which are stated to have been planted in the time of Henry the Eighth, either had not fruited, or were but little known at that period; as Tusser, who has furnished us with a list of the fruits which were grown in England in the succeeding reign, has not mentioned the fig-tree; and Lord Chancellor

Bacon, who wrote still later, never mentions it as being cultivated in England, though, from the exalted situation he filled, and the circles in which he moved, he must have had great opportunities of knowing the earliest introduction of trees and plants, which occupied a part of his attention. The almond, which was not introduced until the days of Elizabeth, is particularly mentioned by him as one of our fruits; but the fig is not in his list. He says, "there be divers fruit trees in the hot countries, which have blossoms, and young fruit, and ripe fruit, almost all the year, succeeding one another." And it is said, the orange hath the like with us for a great part of summer; and so also hath the fig.

The Hortus Kewensis informs us, that the fig-tree was planted in this country in 1548; and we find, in Turner's Herbal, that the fig-tree was cultivated here previous to 1562. Gerard says, in 1597, that "the fruit of the fig-tree never cometh to maturity with us, except the tree be planted under a hot wall." Parkinson also, in 1629, says, that "if you plant it not against a brick wall, it will not ripen so kindly;" but much must depend on the situation of the country.

There is an orchard of fig-trees at Tarring,

near Worthing, in Sussex, where the fruit grows on standard trees, and ripens as well as in any part of Spain; these trees are so regularly productive, as to form the principal support of a large family. Although the orchard does not exceed three-quarters of an acre, there are upwards of 100 trees, that are about the size of large apple-trees, the branches extending near twenty feet each way from the trunk. Mr. Loud, the proprietor of this little figgery, informs me, that he gathers about 100 dozen per day, during the season, and that he averages the trees to produce him about 20 dozen each: the fruit ripens in August, September, and October, a part of the year when the neighbouring watering places are frequented with fashionable company, that insures a ready sale for this agreeable fruit, at good prices.

The second crop I find has occasionally ripened: the fruit, which, although smaller, is exceedingly sweet, are of the white and purple varieties. Two of these trees are now about seventy-five years old, having been planted in the year 1745 by John Long, who raised them from some old ones in an adjoining garden, near the ruins of the palace of Thomas-à-Becket in that town, who, tradition says, brought these trees from Italy,

and planted them himself. The soil of the garden is a deep black loam on chalk.

The trees are but seldom and sparingly pruned, which I conclude is the cause of their being so prolific, as I have remarked that fig-trees rarely produce much fruit where the knife is regularly used. When they grow too luxuriantly, it has been found better to destroy a part of their roots, and to fill up the space with stones or broken bricks, than to prune the branches too much. Mr. Knight, the president of the Horticultural Society, observes, that there cannot be a more defective manner of cultivating the fig-tree than that which is generally practised by gardeners, —of training them against walls, with their branches perpendicular upwards; the wood, by this means, becomes too luxuriant to produce fruit.

The ancients believed that there existed a sympathy between plants, and they therefore planted rue near their fig-trees, which was said to make the fruit sweeter; and that the rue not only grew more luxuriantly, but more bitter, by being thus neighboured by the fig-tree. I think this is very probable, without having any thing to do with sympathy, as trees and plants will naturally draw juices from the earth most congenial to their nature:

the rue may therefore exhaust the earth of those properties suitable for the nourishment of bitter plants, and leave the fig-tree to thrive from a soil, which the former has qualified, by consuming the particles of the earth that are pernicious to sweet fruits. Shakspeare seems to have been of this opinion when he wrote—

“And wholesome berries thrive, and ripen best,
Neighbour'd by fruit of baser quality.”

We have now in this country a great variety of this most delicious and wholesome fruit, which is, I believe, the only kind we possess that has sweetness, without acidity or oiliness. It is nourishing, easy of digestion, and grateful to the stomach; and is much esteemed in the countries where it is cultivated: but in England, it seems to please only the refined palates of the higher order of society. In some parts of the coast of Sussex, where this fruit ripens in perfection, I have known it not only neglected by the middle and lower classes, but even mentioned with derision in their disputes.

The fig-tree is distinguished from all other trees we know of, by it's bearing two successive and distinct crops of fruit in one year, each crop being produced on a distinct set of shoots. This climate rarely allows the second

crop to come to maturity, except where they are housed. At the Royal Gardens at Kew, there is a fig-house fifty feet in length, where, under the superintendence of Mr. Aiton, this fruit has been forced to the highest pitch of perfection: Mr. Aiton's chief reliance has been, I understand, on the second crop. In the year 1810, the royal tables were supplied with more than two hundred baskets of figs from that fig-house, fifty baskets of which were from the first crop, and one hundred and fifty baskets from the second. In one instance, Mr. Aiton had this fruit ripe in January, and sent excellent figs to the palace on the late Queen's birthday, the 18th of that month.

The caprification of figs was practised by the ancients in the same manner as it is now attended to by the inhabitants of the Archipelago; and it is described by Theophrastus, Plutarch, Pliny, and other authors of antiquity. It is too curious a circumstance in the history of the fig-tree to be omitted, as it furnishes a convincing proof of the reality of the sexes of plants. The flowers of the fig-tree are situated within the pulpy receptacle, which we call the fruit. Of these receptacles, in the wild fig-tree, some have male flowers only, and others have male and female.

In the cultivated fig, these are found to contain only female flowers, that are fecundated by means of a kind of gnat bred in the fruit of the wild fig-trees, which pierces that of the cultivated, in order to deposit its eggs within; at the same time diffusing within the receptacle the farina of the male flowers: without this operation, the fruit may ripen, but no effective seeds are produced. Hence it is that we can raise no fig-trees from the fruit of our own gardens, having no wild figs to assist the seed. They are consequently raised by cuttings, or by layers.

In many parts of the Grecian islands, the inhabitants pay such attention to the caprifigation of the cultivated figs, that they attend daily for three months in the year to gather these little flies from the wild fig-trees, and to place them on the fig-trees in their gardens, by which means they not only get finer fruit, but from ten to twelve times the quantity: thus one of the most minute insects is, by the attention of man, made a principal cultivator of fruit.

It is a curious fact, that fresh-killed venison, or any other animal food, being hung up in a fig-tree for a single night, will become as tender, and as ready for dressing, as if kept for many days or weeks in the common man-

ner. A gentleman, who lately made the experiment, assured me that a haunch of venison which had lately been killed, was hung up in a fig-tree when the leaves were on, at about ten o'clock in the evening, and was removed before sun-rise in the morning, when it was found in a perfect state for cooking; and he adds, that in a few hours more it would have been in a state of putrefaction.

In the neighbourhood of Argenteuil, near Paris, are immense fields covered with fig-trees: the inhabitants of the former town derive their chief support from the culture of this fruit; and I feel confident that there are many situations on the coast of Sussex, between the towns of Arundel and Shoreham, where, if figs were cultivated, the London markets could be amply supplied with this nutritious fruit.

We import the best dried figs from Turkey, Italy, Spain, and Provence. In the south of France, they are prepared by dipping them in scalding hot lye made of the ashes of the fig-tree, and then dried in the sun.

For medical purposes, figs are chiefly used in emollient cataplasms and pectoral decoctions.

The wood of the fig-tree is of a spongy texture, and, when charged with oil and

emery, is much used on the continent by locksmiths, gunsmiths, and other artificers in iron and steel, to polish their work. This wood is considered almost indestructible, and on that account was formerly used in Egypt and other eastern countries, for embalming bodies.

I shall conclude my account of the fig-tree, by the well-known story of Timon of Athens, who was called *misanthrope*, for his aversion to mankind and to all society. He once went into the public place, where his appearance as an orator soon collected a large assembly, when he addressed his countrymen, by informing them that he had a fig-tree in his garden, on which many of the citizens had ended their lives with a halter; and that, as he was going to cut it down, he advised all those that were inclined to leave the world, to hasten and go hang themselves in his garden.

FILBERT.—CORYLUS.

A Species of the Hazle-Tree. In Botany, a Genus of the Monœcia Polyandria Class.

FILBERTS were originally brought out of Pontus into Natolia and Greece, and were therefore called Pontic nuts: from thence they were procured by the Romans, and brought into Italy, where they acquired the name of Abellani, or Avellana nuts, from Abella or Avellins, a town of Campania; where the best were cultivated, (Plin. b. xv. c. 22.) and from thence arose the French name Aveline.

These nuts still continue to be cultivated in the same situation; and, according to Mr. Swinburn's account, the whole face of the neighbouring valley is covered with them, and which, in good years, brings in a profit of 60,000 ducats (£11,250.)

Fuller, who wrote in the year 1660, says, "gardening was first brought into England,

for profit, seventy years ago," in the reign of Queen Elizabeth. He adds, "gardening crept out of Holland into Kent."

It is supposed, that within a few miles round Maidstone in that county, there are more filberts growing at the present time, than in all England besides, there being several hundred acres planted with filbert-trees in the vicinity of that town. The London market is entirely supplied from thence with these nuts, which are excellent in quality, and, if quite ripe, will keep good for several years placed in a dry room.

Filberts are not only much more agreeable than the common nuts, but are esteemed wholesome and nourishing when taken with moderation. The cream of these nuts is good for the stone and heat of urine. Emulsions may also be made of them. The Romans used them with vinegar and wormwood seed for the yellow jaundice.

Filberts are not found to answer well but on very few soils: they seem to like a stony, sandy loam; for in rich soils they grow too luxuriantly to produce fruit, but much depends on the skill and management in pruning these trees. In Kent, they are not suffered to grow above five or six feet high, and are kept with a short stem, like a goose-

berry-bush, and very thin of wood, somewhat in the shape of a punch-bowl.

From the class in which the tree is ranged in botany, it will be observed, that the male and female flowers grow quite distinct. The male flower is a scaly catkin, resembling the bullion in fringe; it appears in autumn, and waits for the expansion of the female blossom in the spring, from whence the nut arises: this is very diminutive, but of a fine crimson colour; therefore the pruner should make himself acquainted with the wood that produces each blossom, and not destroy too many of the male flowers that will fall from the tree after they have discharged their pollen; to the benefit of the future fruit.

To preserve filberts, they should be gathered quite ripe, and laid for some days on the floor of a room, where the sun can get in, to dry them effectually.

The Byzantium nut, although much esteemed for its flavour and size, is but little cultivated in this country, and very rarely seen in our markets. This nut was brought from Constantinople, before Constantine had given his name to that city; and I am much inclined to think, that the Greeks procured it from more eastern countries. They were first cultivated in this country by Mr. John

Ray, in 1665, and are generally called Cob-nuts.

Pliny informs us, that Vitellius brought the nuts, called *fistichs*, into Italy, a little before the death of Tiberius, and that Flaccus Pompeius, who served in the wars with Vitellius, carried them into Spain. Nuts are now grown in that country in such quantities, according to the account of Mr. Swinburn, that from a single wood, near Recus, sixty thousand bushels have been collected in one year, and shipped from Barcelona, whence they are called Barcelona nuts.

It was the custom among the Romans for the bridegroom, on the night of his marriage, to scatter nuts among the boys, intimating that he dropt boyish amusements, and thenceforth was to act as a man. (*Servius. Pliny.*)

Columella states, that if nuts be steeped in water and honey before they are planted, they will grow more speedily, and produce sweeter fruit.

GOOSEBERRY.—GROSSU- LARIA.

*In Botany, a Species of the Ribes, of the Class
Pentandria Monogynia.*

THE gooseberry, which is now so much and so justly esteemed, is a native of Europe; and as it grew in the woods and hedges about Darlington, Cambridgeshire, Norfolk, and other northern counties, in the wild state, I consider it indigenous to this country, although Drs. Smith and Miller both entertained doubts of its being truly so. It appears not to have been known to the ancients, either in Greece or Rome, as their authors have made no mention of it; but it is noticed by the earliest naturalists who have written in this country, notwithstanding it was a fruit much neglected, according to Allioni's account, who says, "they are eatable, but somewhat astringent." Gerard says,

“it is called *feaberry-bush*, in Cheshire, my native country,” and I find that it had the same name in Lancashire and Yorkshire. In Norfolk it was abbreviated into *feabes*. It appears to have taken the name of *gooseberry*, from its being used as a sauce for young or green geese.

Gerard says, “These plants do grow in our London gardens, and elsewhere, in great abundance. The fruit is used in divers sawces for meate: they are used in brothes insteade of veriuiice, which maketh the broth not onely pleasant to the taste, but is greatly profitable to such as are troubled with a hot burning ague.”

Parkinson says, that “the berries, whilst they are small, green, and hard, are much used to be boiled or scalded, to make sauce for fish or flesh of divers sorts.” Green gooseberries have continued to be used as a sauce for mackerel since my memory, in many parts of the country; and they are often mentioned by the French as *groseilles aux maquereaux*.

The gooseberry, which was but a small berry in the wild state, has, like the apple, been multiplied in it's variety, and brought to it's present size by the art and industry of the English and Dutch gardeners; and it is

now deemed one of our most valuable fruits, being so easily propagated, and so regular in its production, furnishing our tables, at all seasons of the year, with a wholesome and agreeable diet. It is the earliest as well as one of the best fruits for spring tarts; and, when ripe, the gooseberry is regarded by all classes of society at the dessert, where it appears from July to November, by those who have well-regulated varieties, as some kinds ripen early, while others are not only later, but have the quality of hanging on the bushes until near Christmas: among the last, the Warrington gooseberry is considered the best. I have not attempted to give even the names of all the varieties of this fruit, finding them so numerous, that one nurseryman furnished me with his list, and obliged me with a sight of 300 varieties, the largest of which in weight was equal to three guineas and a half.

Gooseberries are preserved in the green state with little trouble or expense, so as to retain their natural flavour for tarts or cream, &c.; and, when ripe, they make excellent jam, and a delicious and ornamental sweetmeat.

To procure gooseberries large for the table, it is desirable to cut off with a pair

of scissars all the small berries, which are equally good for the purpose of tarts.

The wine made from green gooseberries, if properly managed, is but a shade below champaign; and the black gooseberry, when ripe, affords a luscious wine.

The pale gooseberry was first brought from Flanders in the year that Henry the Eighth received the title of *Defender of the Faith*. This monarch, and his daughter Queen Elizabeth, seem to have encouraged the art of gardening, as during their reigns, most of our best fruits and vegetables were first introduced and cultivated in this kingdom; but even during the reign of these sovereigns, gooseberry leaves were used as a salad by those who could not afford to send to Holland for a lettuce.

The gooseberry is but little esteemed on the continent, for want of being more known; and foreigners seem astonished at the size and flavour of this fruit in England. It cannot be propagated with success in the warmer parts of the world; but in this happy island we procure, by the aid of stoves, the finest fruits of the hottest climes; we may therefore justly say with the poet—

On foreign mountains may the sun refine
The grape's soft juice, and mellow it to wine;

With citron groves adorn a distant soil,
 And the fat olive swell with floods of oil;
 We envy not the warmer clime, that lies
 In ten degrees of more indulgent skies.

It has been a question agitated among physicians, whether fruits be safer before or after meals. The answer to this seems to depend on a knowledge of the stomach. In a weak stomach, they are more apt to be noxious when empty, than when distended with animal food. Here likewise they cannot be taken in such quantity as to hurt. In strong stomachs there is little difference; there they would seem to promote appetite. In weak stomachs even when full, if taken in too great quantity, they may be very hurtful, by increasing the active fermentation of the whole. The ancients alleged, that the mild fruits should be taken before, and the acerb after meals, as being fitter to brace up the stomach, and promote digestion. (*Lectures on the Materia Medica.*)

The gooseberry bush is propagated by cuttings or suckers; but the former way is preferable, as the roots are less likely to shoot out suckers. Straight shoots should be selected about eight inches long, and planted about half the length, in good mould or light earth. The best time for planting them is

in the autumn, just before the leaves begin to fall. It is desirable to sow the seeds of ripe gooseberries, as by this means you have the chance of new varieties; and the bushes generally grow in a better shape than either by cuttings or suckers.

In pruning these bushes, observe to keep the stem quite free from shoots, at least that from ten or twelve inches from the ground, there be but one regular stem. I have seen them trained on trellis work, where the fruit has grown and ripened well; and it is a most desirable method for small gardens, as they have a neat appearance, take but little room, and form a good back ground to flower-borders.

GOURD.—CUCURBITA.

In Botany, of the Monœcia Syngenesia Class.
Natural Order, Cucurbitaceæ.

THE plants of this genus are very nearly allied to those of *cucumis*, and of them there is a great variety.

Gourds were more esteemed by the ancients, than either melons or cucumbers. Pliny has minutely described them as different from the pompion or cucumber. He says, “they are employed for more purposes, and are more useful than the former fruit. When properly dressed,” he says, “they are a light, mild, and wholesome food. The young and tender stalks,” he states, “were dressed and served up to table as a good dish; and the fruit of those that climbed up trees, or walls, or on the frames of arbours, were better food than those which crept on the ground. They have of late,”

says this author, "been much used for pots and pitchers;" but long before, they had been used as barrels to keep wine in. Both the wild and the garden-gourd was much used in medicine by the Romans, who also employed the seeds as a charm to cure the ague. (Pliny, l. xx. c. 3.)

Gerard says, "the pulp, or meat of the gourd, used as a poultice, mitigates all hot swellings, and takes away the head-ache and the inflammation of the eyes."

The bottle-gourd, (*lagenaria*), grows in many parts of the world to near six feet long, and two feet thick. The rinds or shells are used by the negroes in the West-India islands as bottles, holding from one pint to many gallons. Barham speaks of one that held nine gallons; and the Rev. Mr. Griffith Hughes mentions them, in his History of Barbadoes, as holding twenty-two gallons. The shells are cleared of the pulp and seeds by the negroes in the following manner:—they make a hole at one end, into which they pour hot water, in order to dissolve the pulp, which afterwards is extracted with a stick, and the inside rinsed with sand and water, to loosen and clear away the fibres that remain; they are then dried and become fit for use, and will contain water or other liquids for a length of time.

Sloane mentions one of these gourds as large as the human body. Brown says, “the decoction of the leaves is recommended much in purging clysters, and the pulp of the fruit is often employed in resolute poul-tices.” He adds, that “it is bitter and purgative, and may be used instead of the common coloquintida.” Sloane and Barham describe a sweet gourd, which, the latter says, “grow two or three feet long, as big as a man’s thigh, is full of sweet pulp that makes a pleasant sort of sweetmeat or preserve.” He says, “the distilled water is good in fevers, and the pulp applied to the eyes abates their inflammation.” Sloane says “the seeds are diuretic, and made into emulsions, temper and take off the acrimony of urine.”

Lunan describes the squash (*melopeps*), a small gourd, not exceeding the size of a moderate fist, and which, he says, “when young and properly boiled and dressed with butter and black pepper, is a delicious vegetable.” Louriero says, “this fruit is of great use in long voyages, as it may be kept several months fresh and sweet.”

The Gourd, called Vegetable Marrow, is of a pale yellow colour. Those I have seen did not exceed from seven to nine inches in

length. It has only been known a few years in this country; and, I believe, was not sold in the shops and markets before the summer of 1819; and although they are of so late an introduction, the accounts are very imperfect: but it seems most probable that the seeds were brought in some East-India ships, and likely from Persia, where it is called *cicader*. It is cultivated in the same manner as cucumbers, and is said by those who have grown them to be very productive. This fruit is used for culinary purposes in every stage of it's growth. When very young, it is good fried with butter; when half-grown, it is said to be excellent, either plainly boiled, and served up sliced on toasted bread, as asparagus; or stewed with rice sauce, for which purpose it is likewise sliced. It is often sent to table mashed like turnips: when full-grown, it is used for pies. It has been highly recommended to me by many persons who have grown it, while others speak of it as but little superior to the pompion.

GRAPE-VINE.—VITIS.

In Botany, a Genus of the Pentandria Monogynia Class. Natural Order, Hederaceæ.

THE generic name is derived from *vincire*, to bind.

The cultivation of the vine appears to have attracted the attention of man from the earliest times of which we have any account. Every part of the Scripture, from the Flood to the crucifixion of our Saviour, mentions the vine as being held in the highest estimation. The book of Genesis informs us, that “Noah planted vineyards, and made wine.” It is mentioned among the blessings of the promised land, “a land of wheat, and barley, and vines,” &c.

The answer of the vine to the trees in Jotham’s parable, shows in what high esteem men held this fruit:—

“And the vine said unto them, Should I

leave my wine, which cheereth God and man, and go to be promoted over the trees?"

The patriarchs and prophets frequently represent in scripture the flourishing state of a nation, a tribe, or a family, under the emblem of a vine. "Thou hast brought a vine out of Egypt, thou hast cast out the heathen, and planted it; thou preparedst room before it, and didst cause it to take deep root, and it filled the land." Psalm lxxx. —Again the Psalmist mentions it, "Thy wife shall be as the fruitful vine, upon the walls of thine house."

The heathens, likewise, held the vine in the highest estimation. Bacchus was elevated to the rank of a god, for having taught men the use of the vine. As the god of vintage, of wine, and of drinkers, he is generally represented as crowned with the vine; and, according to Pliny, to have been the first who ever wore a crown,—

———— the grapy clusters spread
On his fair brows, and dangle on his head.

Ovid.

Bacchus was sometimes represented as an infant holding a cluster of grapes with a horn, and he has often been depicted as an old man, whose head was encircled with the

vine, to teach us that wine taken immoderately, will enervate us, consume our health, and render us loquacious and childish, like old men.

Juno's crown was also made of the vine. The vine, with grapes, is still selected as a proper ornament in all bacchanalian devices.

Wine was chiefly used by the ancient Romans in the worship of their gods. Young men under thirty, and women all their lifetime, were forbidden to drink wine. Egnatius Macennius killed his wife with a cudgel, having caught her drinking wine out of a tun, for which he was tried by Romulus, and acquitted of murder. Fabius Pictor, in his Annals, reports, that a Roman lady was starved to death by her own relations for opening a cupboard which contained the keys of the wine-cellar. Cato records, that the custom of kinsfolks kissing of women when they met, was to know by their breath if they had been drinking wine, but these restrictions were removed when wine became more plentiful; and the use of it was then carried to such an excess, that even females would drink wine, and, by the aid of a vomit, throw it up again, in order to sharpen their appetites for supper.

Plato, who strictly restrains the use of wine, and severely censures the excess, says that “nothing more excellent or valuable than wine was ever granted by God to man:” the greatest philosophers, legislators, and physicians, give it due praise, when temperately taken.

Amphitryon is said by the Athenians to have been the first who diluted wine with water; and on this account the fable was invented of Bacchus having been struck by a thunderbolt, and, being all inflamed, was presently cast into the nymphs’ bath, to be extinguished.

At what exact period the vine was first cultivated in England is uncertain; but I conclude it was as early as about the tenth year, A. D., as at that time the Romans had possession of great part of this island, and had introduced the luxuries of Italy wherever they settled. Augustus was then emperor, and it was common to send the sons of the English nobles to Rome to be educated; from this intercourse it seems unlikely that the culture of the vine should have been neglected at this time, though many authors are of opinion that the vine was not introduced into this country until about the year 280, when Probus, who

greatly encouraged agricultural pursuits in all the provinces under Rome, was emperor.

Again, we are informed that the planting of vineyards in Italy had so much increased about A. D. 85, that agriculture was thereby neglected; on which account Domitian issued an edict prohibiting any new vineyards to be planted in Italy, and ordered at least one half of those in the provinces to be cut down. It therefore appears highly improbable that the vine should not have been planted in Britain previous to the year 280, when in 85 all the other Roman provinces were over-run with vineyards.

That we are indebted to the Romans for the first introduction of the vine, is generally allowed; although it is possible it might have been introduced at a much earlier period than I have stated, as the Phœnicians are said to have planted the vine in the isles of the Mediterranean sea, as well as in several parts of Europe and Africa; and as we have accounts of their trading to Britain for tin, they might have planted it on the English coast also: but this must remain a matter of conjecture, any further than it confirms the vine to have been originally brought from Palestine. In the Book of Numbers we

find that the men, whom Moses had sent to spy the Land of Canaan, returned with a bunch of grapes, which they bare between two, upon a staff. The Damascus grapes, at the present time, are often found to weigh upwards of twenty-five pounds the bunch. In the accounts of Ægidius Van Egmont, envoy from the States to the King of Naples, and John Heyman, professor of the oriental languages in the university of Leyden, who have published their observations of the present state of Asia Minor, it is mentioned that, in the town called Sidonijah, which is four hours' journey from Damascus, some of the grapes were as large as pigeons' eggs, and of a very exquisite taste. From these circumstances, we may fairly conclude that the vine is a native of Syria. That we do not hear more of the enormous clusters of grapes growing in the eastern parts, is owing to that country having been in the hands of the Saracens since the seventh century, when Abubeker over-run it; and these people being Mahomedans, a religion that prohibits the use of wine, it is natural to suppose that the management and culture of the vine should be greatly neglected.

Although wine is not made in Egypt, vines are much cultivated, and the grapes

have a delicious perfume: the greater part of those that are eaten there, are of that species, of which the fruit contains only a single seed.

The leaves of the vine are of great utility in the kitchens of Egypt: they serve to envelop large balls of hashed meat, one of the dishes most commonly presented at good tables. It is necessary that the leaves should be young: and they are frequently sold at a dearer rate than the grapes themselves. (*Sonnini's Travels in Egypt.*)

In this country, vine-leaves are used in roasting those delicious little birds called *wheat-ears*.

Pliny concludes, that the vine was very rare in Italy in the time of Numà, who ordered that no libations of wine should be made at funerals; and to encourage the pruning of vines, he prohibited the use of any wines, in sacrifices to the gods; that were cut from vines which had not been pruned.

Pliny says, "M. Varro writes, that Mezentius, the King of Tuscany, aided the Rutilians of Ardea, in their wars against the Latins, for no other hire but the wine and the vines which were in the territories of the Latins." He adds, "that wines did

not come into much repute until 600 years after the foundation of Rome."

Julius Cæsar found vines growing in Languedoc and Provence; but other parts of Gaul were totally without vines at that time. Strabo remarks, that Languedoc and Provence produced the same fruit as Italy; but it was not until about the year 270, that the vine was planted in the northern parts of Gaul, and about the rivers Rhine, Maine, and Moselle; and in Hungary.

The varieties of the grape-vine are very numerous; and we have accounts of some of them growing to an extraordinary size, and producing such fruit as appears almost incredible to our northern conception of grapes.

Strabo, who lived in the reign of Augustus, testifies that the vines of Margiana, and in other places, were so big, that two men could scarcely compass them with their arms, and that they produced bunches of grapes two cubits, or a yard, in length. Columella states, that Seneca had a vine which produced him two thousand clusters of grapes in a year. Theophrastus mentions a vine that grew so large, that a statue of Jupiter, and the columns in Juno's temple, were made of it. At the present time, the great doors

of the cathedral at Ravenna may be seen, which are made of vine-tree planks, some of them twelve feet long and fifteen inches broad.

At Ecoan, at the Duke of Montmorency's house, is a table of a large dimension, made of vine planks. Pliny states, that vines, in old times, were, on account of their size, ranked among trees. Valerianus Cornelius mentions a vine of one stock that encompassed and surrounded a good farm-house with the branches. Upon the coast of Barbary, vines are now growing of large dimensions, some of them being eight or nine feet in circumference; and in Persia there are some kinds of grapes so large, that a single one is a mouthful. From what we find in Huetius—Crete, Chios, and other islands in the Archipelago, afford bunches of grapes from ten to forty pounds' weight each. Chios, now Scio, has long been celebrated for its vineyards, and Virgil has immortalized its wines by his pen.

The ritual feast shall overflow with wine,
 And Chios' richest nectar shall be thine:
 On the warm hearth, in winter's chilling hour,
 We'll sacrifice; at summer, in a bow'r.—*Warton.*

Pliny mentions a vine, in his time, that was 600 years old; and Miller states, that

the vineyards in some parts of Italy hold good above three hundred years.

It is related, that Rhemnius Palæmon, who was a renowned Roman grammarian, bought a farm within ten miles of Rome, for which he gave 600,000 sesterces. By cultivation he so improved it, that the produce of his vines in one year sold for 400,000 sesterces. Pliny says, "many people ran to see the huge and mighty clusters of these grapes, which his idle neighbours attributed to his deep learning, while others accused him of using magic and the black art."

We have, at the present time, some remarkable vines in England; for since the introduction of stoves, no country can rival us in the variety and perfection of this fruit, several kinds of which ripen well in the open air.

The vine, too, here her curling tendrils shoots,
Hangs out her clusters, glowing to the south,
And scarcely wishes for a warmer sky.

The Duke of Portland has upwards of a hundred kinds of grape-vines at his seat at Welbeck; and in the year 1781, his grace made a present to the Marquis of Rockingham of a bunch of grapes that grew in his vinery, which weighed nineteen pounds and

a half: it was nineteen inches and a half in the greatest diameter, four feet and a half in circumference, and twenty-one inches and three quarters in length. It was conveyed to Wentworth House, a distance of twenty miles, by four labourers, who carried it suspended on a staff, in pairs, by turns.

The vine at Hampton-Court Palace, which was planted in the year 1769, has a stem of thirteen inches in girth, and a principal branch 114 feet in length, which, in one year, produced two thousand and two hundred bunches of grapes, each weighing, on an average, a pound. His late revered Majesty enjoyed the fruit of this vine half a century. Fruit was the only luxury in which he indulged himself, and that was cultivated in the Royal Gardens to the highest perfection, and served at table in great abundance.

Mr. Eden planted a vine of the black Hamburg sort, at Valentine House, Essex, in the year 1758, which is the parent of the vine at Hampton Court, and has extended itself to upwards of 200 feet in length, being so productive, that it ripened two thousand bunches of grapes in the year 1819.

Speechly describes a vine, which was growing in the open air at Northallerton, in Yorkshire, in 1789, that had once covered

a space containing 137 square yards; and it was judged, that, had it been permitted, it would have extended to three or four times the room. The circumference of the stem, a little above the ground, is three feet eleven inches: it is supposed to have been planted 150 years.

In Jamaica, and some other of the West-India islands, the vine produces two, and often three crops a year. Both Brown and Lunan observe, that grape-vines produce most abundantly in Jamaica, particularly the Muscadine, which ripens all its berries nearly at the same time, and has clusters of the fruit from eight to ten pounds weight; the pulp of which has been found less watery, and more fleshy, than the same fruit in the south of France, and yet the making of wine even for the consumption of the island has never been attempted.

There are several accounts of actual vineyards being in England in an early period of our history. Vineyards are noticed in the Doomsday Book, as also by Bede, as early as the commencement of the eighth century.

The isle of Ely was expressly denominated the *isle of vines* by the Normans. The Bishop of Ely, shortly after the Conquest,

appears to have received at least three or four tons of wine annually, as tithes from the vines in his diocese; and in his leases he made frequent reservations of a certain quantity of wine by way of rent: many of these wines were little inferior to the French wines in sweetness. Few ancient monasteries were without a vineyard attached to them. Malmshury mentions the county of Gloucester, as excelling every other part of the country, in his time, in the number and richness of its vineyards. In the reigns of Stephen and Henry the Third, we meet with accounts of vineyards. The first Earl of Salisbury planted a vineyard in his park adjoining Hatfield House, Hertfordshire, which was in existence when Charles the First was conveyed there a prisoner to the army.

Historians and antiquarians appear remiss, in not accounting for the total neglect of the British vineyards; but we may conclude that, as our intercourse increased with the continent, it was found more advantageous to import wine than depend on the product of our own crop, which must have been an uncertain one, from the variableness of our climate. Again, the low price of foreign wines must have contributed much to the neglect of making it in England, as in the

year 1342, according to Stow, the price of Gascon wines in London was fourpence, and that of Rhenish, sixpence per gallon; and, in 1389, the price of foreign wine was only twenty shillings per ton, for the best sort, and thirteen shillings and fourpence for the second quality, which was about three halfpence per dozen.

It is stated by several authors, that foreign wines were sold by apothecaries only, as a cordial, in the year 1300. I am of opinion, that it was Portugal wine only which the apothecaries sold, and not foreign wine in general, for about that time we find that the merchants of Gascoin were settled in London in great numbers; and that, in the year 1317, an order was made to this effect, "That merchants, who are not of the freedom of the city, are not to sell, by retail, wines or other wares, within the city or suburbs. Witness the King, at York, the eighth day of June."

The suppression of all the monasteries in England must also have contributed much towards the loss of our vineyards; and the present high duties on wine could not have been anticipated by our forefathers, when they neglected their vines.

The first duty on wines was one penny per ton, which was in the year 1272, when wine

gaugers were first appointed at London and the principal sea-ports. The new gauge duty at London alone amounted to fifteen pounds sixteen shillings and sevenpence, which makes the quantity imported amount to 7,598 pipes. The principal customs for importation, at that period, seem to have been on wines chiefly French and Rhenish, as there is yet scarcely any mention of Spanish, or Portuguese, or Italian wine. (*Madox's History of the Exchequer.*)

In the year 1409, the duty on wine was three shillings per ton.

Grapes seem to have become rare about the year 1560. Strype, in his Life of Grindall, Bishop of London, (who was one of the earliest encouragers of botany in this kingdom) writes, that his grapes, at Fulham, "were esteemed of that value, and a fruit Queen Elizabeth stood so well affected to, and so early ripe, that the bishop used every year to send her Majesty a present of them."

The vintage is a season of mirth in all the wine countries, and seems to have been equally so in the earliest times. The prediction of Isaiâh concerning Moab is particularly characteristic: "And gladness is taken away, and joy, out of the plentiful field; and in the vineyards there shall be no singing, neither shall

there be any shouting: the treaders shall tread out no wine in their presses; I have made their vintage shouting to cease."

The Spaniard, during the vintage, throws off his stateliness and his cloak, and cries out to his servants, "Let us be merry, my companions; wisdom is fled out of the window."

The various wines made from the juice of the grape are so numerous, that to give a short description of each would be to write a voluminous work, and could only be interesting to those who are in the wine trade. Pliny says, there were eighty kinds of the best wines in his days.

The Grecians were renowned for their wines. Homer has celebrated several: among them, the kind called Maronean wine, which was made from grapes growing upon the coast of Africa; and also the Pramnian wine, which, according to Pliny's account, was made from one vineyard only in the neighbourhood of Smyrna, near to the temple of Cybele.

These wines were so rare and expensive in Rome, in the younger days of Lucullus, that only one draught was allowed at a repast, however sumptuous the feast was in other respects. Lucullus says, that "he never

saw at his father's board Greek wines served up but once at a meal; but when he returned from Asia, he gave to the people a largess of more than 100,000 gallons of this wine; and Hortensius, at his death, left above 10,000 barrels full of Greek wines to his heir."

I have selected the following lines of a poet, who wrote in the fourth century, to show of what wines the Britons had knowledge at that early time.

Ye shall have runney and malespine,
Both yprocasse and vernage wyne,
Mountrese and wyne of Greek,
Both algrade and despice eke;
Antioche and Bastarde,
Pyment also, and garnarde,
Wyne of Greke and Muscadell,
Both clare, pyment, and Rochell.

Some of these liquors, as yprocasse, pyment, and clare, were compounded of wine, honey, and spices.

At the installation feast of George Neville, Archbishop of York, and Chancellor of England, amongst other liquors is mentioned, "In ale, 300 tun; in wine, 100 tun; in ipocrasse, 1 pipe."

In the year 1311 we find Thomas Earl of Leicester debited by his cofferer, or pay-

master, Thomas Leicester, amongst other charges, with £104. 17s. 6d. for 369 pipes of red wine and two pipes of white, which is about 5s. 7 $\frac{3}{4}$ d. per pipe. (*Stow's Survey of London.*)

In the year 1322, when the sentence of banishment against the Spencers was removed, the elder Spencer's petition to the King, setting forth the damage he had sustained, amongst other things enumerates forty tun of wine and ten tun of cider. From these circumstances, we may fairly judge that wine was the principal beverage of the English nobility at that period.

At the present time, the consumption of wine in these dominions is immense, notwithstanding the excessive high duties laid on foreign wines; and in the London Docks there are eleven large vaults for housing of wines until the duties are paid on them: one of these vaults often contains near 30,000 pipes.

Portugal supplies us with both the red and the white port, which take their name from Oporto, from whence they are shipped. Lisbon, which is called after that city, and Bucellas, which is a wine made from the fruit of vines that have been brought from the Rhine, and planted in the neighbourhood

of Lisbon, if not often renewed, degenerate, and become similar to the produce of Lisbon. No wine improves more by keeping than Buccellas, if good when bottled.

Port wine is imported in casks, containing 138 gallons, which is called a pipe, but often gauges two or four gallons over: upon this the duty must be paid, although the merchant makes no charge for the extra quantity.

France has been long famous for her vineyards, and even exported wine to Italy in the reign of Vespasian. Our traffic with Bordeaux for wine, commenced about the year 1172; and we now obtain from France a great variety of delicate wines, among which are the red and white hermitage, burgundy, claret, champaigne of several sorts, frontignac, muscadel, lunel, barsac, langon, vin de grave, &c. &c. The generality of these wines do not require long keeping, and, without great care, burgundy and champaigne soon become ropy and spoiled. The most esteemed French wines are

The claret smooth,
The mellow tasted burgundy, and quick,
As is the wit it gives, the gay champaigne.

From Switzerland we procure neufchâtel, velteline, la côte, reiff, &c. &c.

The borders of the Rhine furnish us with a variety of Rhenish wines, the most esteemed of which is called hock, from Hockheim, the town where it is made. This wine cannot be kept too long, as it obtains both body and flavour, as well as colour, by age. Hock wine is given with the greatest advantage, in cases of the typhus fever. About one half of Germany can boast of having good vineyards, while the other half has none: all the wines of this country require long keeping.

The advantage of keeping particular wines, was well known to the Romans.

*Est mihi nonum superantis annum,
Plenus Albani cadus.*

Hor.

Phillis, this Alban cask is thine,
Mellow'd by summers more than nine.

Pliny mentions having met with wines in his time that were made in the consulship of Opimius, which was almost two hundred years before. This author says, "there was a wine made at Vienna which sold the dearest; it had," says he, "the taste of pitch, and it is reputed cooler than other wines, and was therefore given to allay fever."

The Hungarian wines, if not sent to us in

quantities, are made up in quality, if we may judge by the price of tokay. At the sale of the Duke of Queensberry's wine, in 18—, the tokay sold for one hundred and fifty pounds per dozen, which is about a guinea a glass. The tokay made at Johanneski, in Poland, of the vintage of 1811, was sold on the spot for 4,000 florins the cask of 8 ohms, which is equal to twenty-seven shillings per gallon.

Spain furnishes us with sherry, paxeretta, mountain, tent, &c. Mr. Swinburn mentions, in his account of Spain, that in plentiful seasons the vineyards are so productive, casks cannot be found to contain the wine; and that many vineyards remain ungathered, notwithstanding public notice being stuck at the church doors, that all who choose may gather, by paying a small acknowledgment. Those who are afflicted with bilious complaints should drink good sherry, in preference to all other wines, it being less likely to turn acid on the stomach.

The island of Madeira was planted with the vine from cuttings brought from Cyprus, by Prince Henry, son to John the First of Portugal, in the year 1420, when the island was first discovered; and it now affords about 30,000 pipes of wine annually. The Rhenish

vine has also been planted in Madeira, and produces a very superior wine, known by the name of Cerciél Madeira: this island also affords us a sweet wine, called Malmsey Madeira, but the genuine Malmsey wine is the produce of Malvisia, and is now very rare. The ancients sometimes ripened particular wines, by placing them in the smoke above a fire, or in an upper part of their houses; and it is well known to the moderns, who are curious in their Madeira wines, how much they improve by being kept in a garret; instead of a vaulted cellar. Good West-India Madeira that has been exposed to the frost, as well as the heat of summer, will be found to have ripened; as well as by a voyage to the East-Indies.

The Teneriffe wine, when about three years old, can hardly be known from Madeira; but as it gets older it becomes sweet and mellow, like Malaga. Formerly there was made at Teneriffe a great quantity of canary sack, which the French call Vin de Malvesia, and we, corruptly after them, Malmsey, from Malvesia, a town in the Morea, famous for luscious wines.

The luscious red wine called Lachryma Christi, is produced from vineyards on Mount Vesuvius.

The Cape of Good Hope has been planted with vines from the Rhine, Persia, and other countries; and they have so increased, that there is scarcely a cottage without a vineyard in all the colony. It is from the Cape that we obtain those rich wines called Constantia, both red and white, which are made on one farm only, and the quantity does not exceed sixty pipes of red and 100 of the white per annum. We also receive from thence large quantities of the wine called Cape, which will be good when the growers know their interest better, and attend more to the quality and less to the quantity. There is another objection to this wine, which must be remedied before Cape can be agreeable, *viz.* that the vines, instead of being staked, as in other wine countries, are suffered to trail on the ground: it is natural, therefore, to conclude that those berries next the earth will rot, and a few unsound grapes will give an unpleasant flavour to a large quantity of wine.

The moderate use of wine has never been condemned by physicians; and in so moist and changeable a climate as England, a more plentiful draught may be allowed than in warmer countries.

Sentius, when he was prætor of Rome, said

he never had any wine of Chios in his house before the physician prescribed it for the palpitation of the heart, a complaint he laboured under, which is a convincing proof of it's having been used medicinally in those days. On the other hand, Androcydes, in his letter to Alexander the Great, says, (to correct his intemperate drinking of wine,) " My good lord, remember when you take your wine, that you drink the very blood of the earth; hemlock, you know, Sir, is poison to man, even so is wine to hemlock."

That an excess of this reviving beverage is pernicious to the health, no one will attempt to deny, any more than he would to excuse repeated intoxication. Wine is not so much used in this age to debase man as it was in times past. Those liquors least intoxicating are now preferred; and the quality of the wines given at table is at present more attended to than the quantity; which has introduced cheerfulness and good sense around the decanters, in exchange for boisterous disputes. In an age that has advanced so far towards refinement, there can be no need to set up the alarm of poison, or condemn all the wine-merchants as murderers, as has lately become the fashion of some authors, which can answer no other purpose than that of

alarming the timid, and bringing a respectable body of men into contempt. I am surprised that any person should make so severe an accusation as that of stating to the world that poisonous drugs are employed by the wine-merchants, without giving one instance to make good their assertions. About the year 1426, when Sir John Rainwell was lord-mayor of London, he having received an information of the mal-practices of the Lombard merchants in adulterating their wines, to the great prejudice of the health of his Majesty's subjects, caused one hundred and fifty butts of that pernicious liquor to be seized in divers parts of the city, the heads whereof being knocked out, the wine, or putrid matter, ran into the street channels, and emitted such a very noxious smell, that it infected the air to a great degree. It will be observed that this was an imposition practised by foreign merchants, and I do not recollect having met with any instance where an English wine-merchant has been detected in this infamous practice, or of the charge of mixing his wine with perry, as has been stated is often done, and thereby defrauding both the revenue and his customers. This latter charge can be refuted by the best of all possible reasons, *viz.* : it is

against the interest of a wine-merchant so to do ; for he has more difficulty in procuring superior wines than he has of obtaining ready sales at high prices. The best wines are always the first sold, and afford the largest profit, whereas inferior wines are rarely disposed of without a loss. I conclude it is generally known, that, at the present time, the duty and other incidental charges on foreign wines form the greater part of the price, and that the worst pipe of Port or Madeira pays as much duty as the best ; it is therefore a most material part of the business of a wine-merchant to import the best wines from the countries with which he trades. When the vintage proves rather unfavourable, or his importations are deficient in flavour, he pursues a very different course to adulteration : he is obliged to procure the richest wines he can obtain of the same kind to mix with them. This is often done at a great expense, because he has not the means of disposing of inferior wines, even at any price. It is not an uncommon practice to add Burgundy or Hermitage to improve Port wine : this cannot be deemed adulteration.

Solomon, in his Proverbs, says, " Wisdom hath mingled her wine."

The fining of white wines is so simple a process, and attended with so little expense, that there can be no inducement to use poisonous drugs, as has been stated by a late publication to be a common practice. It is well known to every house-keeper, that isinglass dissolved in Hock or Rhenish wine will fine the most obstinate white wines. It is correctly stated, that there are persons who prepare finings for the wine-merchants at a cheap rate; but as this is publicly sold, any person has an opportunity to analyze it, and ascertain if it consists of poisonous drugs: indeed it would have been more honourable to have analyzed the wines of any suspected person, and to have exposed them to the public, were they guilty of so injuring the constitutions of their benefactors. A wine-merchant seldom does more himself to the fining of his wines than to give directions to his cellar-man: were he to use pernicious finings, how often should we hear of his being betrayed by his discharged servants!

For red wines, the whites of eggs, with sometimes a part of the shells pulverized, is the universal and only finings used. A few years back, when there was so great a demand for pale sherry, the wine-merchants discharged the colour with the assistance of a

small quantity of new milk. The folly of this fashion was no sooner seen, than good brown sherries returned into favour. The Africans of old used to mitigate and allay the tartness of their wines with a kind of lime plaster, while the Greeks of the same day quickened their's with clay and marble powdered, or with sea water.

The Romans admired the flavour of pitch, which was often added to their wines; thus we find it has ever been the study of the wine-merchant to suit the taste of the times, but at no period has it been found necessary to add baneful drugs.

Grapes furnish the French with another article of commerce, almost equal in importance to their wines; namely, brandy. It is computed that their exportation in this liquor is not less than 50,000 pipes or pieces per ann. which, at the average of five shillings per gallon, produces them nearly two millions sterling annually.

The brandies imported into this country are principally from Bordeaux, Rochelle, and Cogniac; but they are very inferior to those made in the neighbourhood of Nantes and Poictou, from whence private families in the city and suburbs of Paris supply themselves, and they are very careful to obtain the best quality of this spirit. All brandies are ori-

ginally white, but by long keeping they naturally become a little stained by the cask; and to give this appearance of age to the brandies shipped for England, burnt sugar and other dyes are added to such an excess, as to destroy the natural flavour of the spirit.

Private families would do well to buy none but the best pale brandy, and the importation of bad brandies would soon cease.

The fruiterers of London have a considerable trade in preserved grapes, which are principally brought from Portugal in large earthen jars, closely cemented down: these grapes add considerably to the luxury of our winter desserts, as they are sold at moderate prices for so rare a fruit.

This art of preserving grapes was well known to the Romans. Columella gives a particular account of the manner they were preserved, both in his time, and in the time of his uncle Marcus Columella. He recommends them to be put into small jars that will only contain one bunch, and that the fruit should be gathered quite dry, when the sun is on it, and after being cooled in the shade, to be suspended in the jars, and the vacua to be filled up with oat chaff, after all the dust has been blown from it. The jars must be well baked or burned, and not such

as imbibe moisture: the tops of the jars must be covered over, and pitched, to keep out the air.

The process of drying grapes into raisins is usually performed, by tying two or three bunches together before they are cut from the vine, and dipping them into a hot lixivium of wood ashes, with a little olive oil in it: they then shrivel, and partly dry; and in a few days they are cut from the vine, and dried in the sun. We procure the finest raisins from Damascus. Sun raisins are brought from Spain, and are so called to distinguish them from those that are scalded, or dried, in ovens. Large quantities are also imported from Malaga, Calabria, Muscadine, Smyrna, &c.

The vinous latitude is said to extend between the 25th and 51st degree in the northern hemisphere.

It has been observed, that all the vineyards in Germany, beyond the 51st degree, are dubious. This leaves the southern coast of England within the latitude for vines; and I have often been surprised that the culture of them should have been so little attended to, where the shelter of the hills, and the soil, seem to offer so promising a situation.

There are several flourishing vineyards at this time in Somersetshire: the late Sir William Basset, in that county, annually made some hogsheads of wine, which was palatable and well bodied. The idea that we cannot make good wine from the juice of our own grapes is erroneous: I have tasted it quite equal to the Grave wines; and in some instances, when kept for eight or ten years, it has been drunk as Hock by the nicest judges. Grapes that are not perfectly ripe, and even sour, will make good wine, but it will require longer keeping.

If a sweet wine be preferred, raisins should be used with the grapes; for sugar and water (the common addition to our country wines) can never produce a good beverage.

The following observations on the economical uses to which the leaves and stalks of the vine may be applied, are taken from a letter in the Philosophical Magazine, No. 119, signed James Hall.

“ From experiments which I have made, I find that, on being dried, which should be done in the shade, and infused in a teapot, the leaves of the vine make an excellent substitute for tea. I have also found that, on being cut small, bruised, and put into a vat, or mashing-tub, and boiling water poured

on them in the same way as is done with malt, the prunings of the vine produce liquor of a fine vinous quality, which, on being fermented, makes a very fine beverage, either strong or weak, as you please; and on being distilled, produces an excellent spirit of the nature of brandy. In the course of my experiments, I found that the fermented liquor from the prunings, particularly the tendrils, when allowed to pass the vinous, and to run into the acetous fermentation, makes uncommonly fine vinegar.”

Vine-leaves, as well as the tendrils, have an astringent taste, and were formerly used in diarrhœas, hæmorrhages, and other disorders requiring refrigerant and styptic medicines. The juice or sap of the vine, called lachryma, has been recommended in calculous disorders, and is said to be an excellent application to weak eyes and specks of the cornea. The tendrils of the vine were eaten as a pickle by the Romans.

The expressed juice of the unripe fruit is called verjuice, and is considered a very useful external remedy for bruises.

The wood of the vine, reduced to charcoal, is used by painters for drawing outlines, and is mentioned as good for tooth powder.

Although it forms no part of my plan

in this work to enter upon the cultivation of trees, I cannot avoid giving a few remarks on a fruit of so much importance.

In the planting of vines, the first care should be to select cuttings of those kinds which are known to be good, and suitable to the situation and soil in which they are to be placed.

“The grafting of vines upon vines is not now in use,” says Lord Bacon in his Natural History; and adds, “the ancients had it, and that three ways: the first was insition, which is the ordinary manner of grafting; the second was terebration through the middle of the stock, and putting in the scions there; and the third was pairing of two vines, that grow together, to the marrow, and binding them close.”

Speechly, in his work on the vine, says, “The grafting of grapes is but little attended to, although of so much importance; as a bad vine may be improved without loss of time;” and he states, that he has had fine grapes from the same year’s grafts, which, if permitted, will run from thirty to forty feet the first summer. He mentions a vine of the Syrian kind, in a hothouse at Welbeck, that produced sixteen different sorts of grapes from as many graftings.

Vines have ever been found to thrive best on the banks of rivers, or where their roots can draw moisture in abundance.

The scripture often makes the remark ; “ It was planted in a good soil, by great waters, that it might bring forth branches, and that it might bring forth fruit, that it might be a goodly vine.” (*Ezekiel*, c. xvii. v. 8.)

“ Thy mother is like a vine in thy blood, planted by the waters : she was fruitful and full of branches, by reason of many waters.” (*Ezekiel*, c. xix. v. 10.)

It hath been stated, that the blood of animals, applied about the roots, greatly nourishes the vine : this must be owing to the quantity of saline particles which it contains.

Mr. Daws, of Slough, near Windsor, has made the experiment of painting one half of a wall black, that was covered with a vine, and leaving the other half in it's common state. That part of the vine which covered the black wall, ripened the grapes earlier, and yielded about three times the weight of fruit that the other half produced.

Gentlemen, who prune their own vines, should observe, that the fruit is always produced upon the shoots of the same year, which are thrown out of the buds of the last year's shoots ; and that it is not the old

wood that yields grapes. It is best to prune vines as soon as the fruit is gathered, as the bearing shoots for the following year cannot then be mistaken; and it is recommended to shorten them, so as to leave but four eyes, as by leaving too many, the vine is exhausted, and yields but poor small fruit. The shoots just above the fourth eye are to be cut, and the cutting to be sloped or cut in such a manner, that the water discharging from the shoot may not run on the bud to injure it. About the beginning of May, all vines should be looked over, and the shoots from the old wood should be rubbed off; and if one eye produces two shoots, the weakest must be removed. Vines require frequent examining, after this time, to rub off all dangling shoots; and about the latter end of June, the ends of the bearing branches are to be nipped off, but those intended for the next year's fruit, may go a month longer before they are topped.

The blossoms of the vine have an agreeable odour: the ancients used to put them into their wine, to give it this fragrance.

The Romans reared their vines by fastening them to certain trees, as the poplar and the elm, &c., whence these trees were said to be married to the vines, which gave rise to

that elegant and entertaining story of Ovid's Vertumnus and Pomona.

“ If that fair elm,” he cried, “ alone should stand,
 No grapes would glow with gold, and tempt the hand;
 Or, if that vine without her elm should grow,
 ’Twould creep a poor neglected shrub below.”

Pliny states that the vines in Italy would climb to the very top, and even out-top the highest poplars; on which account, the grape gatherers, in time of vintage, put a clause in the covenant of their bargains, when they were hired, that in case their foot should slip and their necks be broken, their masters should give orders for their funeral fire and tomb, at their own expense.

HAZEL.—CORYLUS;

Or NUT-TREE.

In Botany, a Genus of the Monœcia Polyandria
Class.

THE common hazel-nut is found growing wild in most parts of Europe, as also in every part of England. It is never cultivated for the sake of the nut, which is considered unwholesome, being hard of digestion, and causing shortness of breath and wheezing. Many young people have suffered by eating too freely of this fruit; and it has caused the death of several who have taken immoderately of it.

The pleasure of nutting parties is well known in this country, and much enjoyed by the rustics: it is thus beautifully described by Thomson:

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

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

These nuts are not much used in medicine, but the cream of them is good for the stone, and heat of urine; emulsions made of them with mead, are recommended for old dry coughs.

Quercentan gave a drachm of the powder of nut-shells, mixed with an equal quantity of prepared coral, in a glass of the water of carduus benedictus, or corn poppy, in the pleurisy.

The wood of the hazel-tree is used for making hoops for casks, hurdles, crates, springles to fasten down thatch, fishing rods, &c.; it is also burnt for charcoal; and in the country where yeast is scarce, they twist the slender branches of hazel together, and steep them in ale yeast during its fermentation: they are then hung up to dry, and at the next brewing are put into the wort instead of yeast.

JUNIPER.—JUNIPERUS.

*In Botany, a Genus of the Diæcia Monadelphia
Class. Natural Order, Coniferæ.*

THE earliest mention of the juniper-tree will be found in the first book of Kings, about 906 years before the Christian era, when the prophet Elijah took refuge in the wilderness of Beersheba, to avoid the persecution of King Ahab. “He went a day’s journey into the wilderness, and came and sat down under a juniper-tree: And as he lay and slept under a juniper-tree, behold then an angel touched him, and said unto him, Arise and eat.”

The juniper is also a native of most of the cold mountainous parts of Europe. Gerard says, “The common juniper-tree grows, in some parts of Kent, unto the bigness and stature of a fair great tree.” It is found growing wild in considerable quantities on many parts of the Sussex and Surrey hills,

from whence it is often transplanted into shrubberies. Being of a bluish evergreen, it contrasts well with the laurel and other shrubs of that nature. The flowers are herbaceous, and, if viewed with a microscope, would be found a most beautiful model, either for the jeweller, or the ornamental sculptor.

Juniper berries, used by distillers to flavour their gin, are principally brought from Holland and Italy. These berries are carminative; but their most remarkable properties are, in scouring the viscera, and particularly the reins and urinary passages, for which reason they are of great service in asthmas, cachexies, the jaundice, colic, the stone of the bladder and kidneys, as also crudities of the stomach. The oil of juniper berries is a very stimulating diuretic: the decoction, inspissated to the consistency of a rob, or extract, has a pleasant, balsamic, sweet taste. This extract may be used with advantage, as in catarrhs, debility of the stomach and intestines, and difficulties of the urinary excretions, in persons of advanced age.

Etmuller had a vast opinion of juniper berries. The rob, made of the expressed juice of the green berries, has been called by many *theriaca Germanorum*, so much are

they esteemed by that nation for their alexipharmic qualities. In many parts of Germany, they are used as a culinary spice, and the flavour of these berries is esteemed in their sauer kraut. The heathcock of Germany is not eatable in the autumn, being so strongly flavoured with juniper berries, on which this bird feeds. The wood of this shrub is also of use in physic, as it strengthens the stomach, clears the lungs, removes obstructions of the viscera, and is further said to be sudorific, cephalic, and hysteric. So much is the flavour of the berries admired by the lower order of the inhabitants of the metropolis, that it would be difficult to name any complaint, that they would not be afflicted with, for the sake of a plentiful supply of this cordial.

In Sweden, the juniper-berries are made into a conserve, and eaten at breakfast. The Swedes also prepare a beverage from them, which they consider useful as a medicine. In some places they are roasted, and used as a substitute for coffee.

Gerard says, in his 3d book, " Divers in Bohemia do take, instead of other drinke, the water wherein these berries have been steeped, who live in wonderful good health."

The wood of the juniper-tree is very hard,

beautifully veined, susceptible of a very high polish, and is admired, when used as veneering for cabinet furniture, being fragrant, and of a yellow colour. Pliny says, "the juniper has the same properties as the cedar," adding, "that it grew in Spain to a great size, but that wherever it grows, the heart is found more sound than cedar." It has been said, that a coal of juniper wood, covered with ashes of the same kind, will keep on fire a whole year.

LEMON.—LIMON.—CITRUS.

In Botany, of the Class Polyadelphia Icosandria; Natural Order, Bicornes.

THIS fruit derives its name from the Greek word λειμῶν, which signifies a meadow, because the leaves and the fruit, before they are ripe, are of the colour of a spring meadow.

The lemon and the citron-tree are natives of Asia, from whence they were brought into Greece and Italy. They appear to have been well known to the Romans in the days of Pliny, although they had failed in the cultivation of them, as that author informs us in his 13th book, chap. iii., where he says, speaking of foreign trees, “I will begin with that, which is of all others the most wholesome, the citron-tree, called the Assyrian-tree, and by some the Median-apple: the fruit is a counterpoison, and singular antidote against

all venom ; the leaves," he says, " are like the arbutus, and it hath thorns." " The pome citron," he continues, " is not good to be eaten as a fruit, but is very odoriferous, as are the leaves, which are used to be put in wardrobes among apparel, to give a perfume, and to keep off moths and spiders." " This tree," he adds, " bears fruit at all times of the year, for when some fall, others begin to mellow, and some to blossom. Many have tried to transplant the trees into their own country ; and for this purpose they have had pots made, and enclosed them well with earth ; but for all the care and pains taken about them, to make these trees grow in other countries, yet would they not forget Media and Persia, and liking no other soil, would soon die."

Virgil, in his Second Georgic, has elegantly described this fruit, and it's supposed medical powers against spells and poison.

Media fert tristes succos tardumque saporem
 Felicis mali: quo non præsentius ullum
 (Pocula si quando sævæ infecere novercæ
 Miscueruntque herbas, et non innoxia verba)
 Auxilium venit, ac membris agit atra venena.
 Ipsa ingens arbos, faciemque simillima lauro:
 Et si non alium late jactaret odorem,
 Laurus erat: folia haud ullis labentia ventis:
 Flos apprime tenax: animas et olentia Medi
 Ora fovent illo, et senibus medicantur anhelis.

Sharp-tasted citron Median climes produce,
 Bitter the rind, but gen'rous is the juice ;
 A cordial fruit, a present antidote
 Against the direful stepdame's deadly draught,
 Who, mixing wicked weeds with words impure,
 The fate of envied orphans would procure.
 Large is the plant, and like a laurel grows,
 And, did it not a diff'rent scent disclose,
 A laurel 'twere : the fragrant flow'rs contemn
 The stormy winds, tenacious of their stem ;
 With this, the Medes to lab'ring age bequeath
 New lungs, and cure the sourness of the breath.

Dryden.

The lemon-tree appears to have been cultivated in this country as early as the reign of James the First, as Lord Bacon mentions the housing of hot country plants, as lemons, oranges, and myrtles, to save them.

In some parts of Devonshire, lemon-trees are trained to the walls, and require no other care than to cover them with straw or mats during the winter. Earl Paulet presented some of these lemons to his late Majesty upwards of forty years ago, which grew in the garden of his sister, Lady Bridget Bastard, of Garston. The lemon-tree is of a much hardier nature than the orange: it is therefore brought to greater perfection in this country than the latter fruit. Lemons have long been propagated with success in Italy, Spain, Portugal, and the South of France, as well as in the West-India

islands. The lemons of St. Helena are the most esteemed, growing larger, and of a milder flavor than other kinds.

This fruit is now become almost necessary in culinary purposes, as well as being an article of luxury in a variety of shapes: it makes an excellent sweetmeat when cleared of its pulp, and prepared with clarified syrup. Lemonade and lemon ices are as well known in the present day as punch was in the last age. The yellow peel of the lemon is an agreeable aromatic; and, in cold phlegmatic constitutions, it proves an excellent stomatic and carminative, warming the habit and strengthening the tone of the viscera.

Lemons are cooling and grateful to the stomach, allaying thirst, increasing appetite, and are useful in fevers, even malignant and pestilential. The juice, mixed with salt of wormwood, is an excellent medicine to stop vomiting, and to strengthen the stomach. The efficacy of lemon-juice in preventing the sea-scurvy, has long been recommended. Sir James Lancaster, in his voyage in 1601, carried with him several bottles of lemon-juice, and, by giving his sailors a few table-spoons-full in the morning, kept off this disorder.

In Captain Cook's voyages, great benefit was derived from lemon and orange-juice,

which were found in the sea-scurvy to be very efficacious.

Dr. Willich states, that the largest dose of opium may be checked in it's narcotic effects, if a proper quantity of citric acid be taken with it; and that, with this adjunct, it induces cheerfulness instead of stupefaction, and is succeeded by gentle and refreshing sleep.

In Sicily, the juice of lemons forms an important article of commerce, it being considered the most valuable remedy for the scurvy in long voyages. It is also very extensively used by calico-printers, as a discharger of colour, to produce, with more clearness and effect, the white figured parts of coloured patterns, dyed with colours formed from iron.

When Gibraltar was besieged or blocked up in the autumn of 1780, vegetables had become so scarce, that a small cabbage sold for 5s. which caused the scurvy to rage to such a degree, as threatened more fatal consequences than the gun-boats of the Spaniards. The women and children, as well as the officers, were equally affected with this dreadful disorder, when happily an antidote was procured by the capture of a Danish dogger, from Malaga, laden with

lemons and oranges, which the governor immediately purchased for the use of the garrison, and distributed among them, which relieved them most wonderfully. The juice was given to those in the malignant state diluted with sugar, wine, or spirits. Various antiscorbutics had previously been used without success, such as acid of vitriol, sauer kraut, extract of malt, essence of spruce, &c.

As the juice of lemons and limes became in so much demand for medical use, as well as for the purposes of luxury, various modes of purifying and preserving it have been adopted by our ingenious chemists, who have succeeded in procuring the acid in a state of purity in crystals. The liquor called *shrub*, is made with lemon and lime-juice added to rum.

The fruit of the lime (*lima*) resembles in acidity the lemon; and the tree, that of the orange, having winged leaves. It is much smaller than the common lemon, and is principally brought to this country from the West-India islands, where, says Lunan, "the negroes take the young fruit, soon after it is formed, or when about the size of a small hazel-nut, pare off the rind, which they beat into a fine pulp, and with a hair-pencil apply it carefully to the lids of sore eyes for a cure. It is sup-

posed," continues Lunan, "this rawness of the eye-lids, accompanied with a humour, is generally caused by worms which lodge in it, and that this application destroys them."

Lime punch is more esteemed than that made from lemons, particularly for cold punch, which is a beverage greatly esteemed by turtle eaters.

The citron is principally used as a sweetmeat.

The shaddock-tree: *Aurantium Fructu maximo Indiae Orientalis.*

This fruit is also a species of the *citrus*, and takes its name from Captain Shaddock, who first brought it from the East Indies, where it is a native. It is now cultivated in the West Indies, where the fruit often grows to the size of twenty inches in circumference, and is known to yield near half a pint of clear juice. It is described in the *Hortus Jamaicensis* as being often larger than a man's head. Shaddocks are preserved as a sweetmeat, and used in making punch, as well as limes and lemons.

LOCUST-TREE.—HYMENÆA.

*In Botany, of the Class Decandria Monogynia.
Natural Order, Lomentaceæ.*

THIS is a very large spreading tree, in shape resembling the beech. The flowers are produced in loose spikes at the end of the branches, and are succeeded by thick, fleshy, brown pods, shaped like those of the garden-bean, about six inches long, and two and a half broad, wherein there are three or four round, flat, blackish beans or stones, bigger than those of the tamarind, enclosed in a whitish substance of fine filaments, as sweet as sugar or honey. The wild bees are fond of building their nests in these trees: we may therefore justly conclude that St. John found both the locust and wild honey on the same trees, and that it was this fruit on which he fed, and not on insects, called locusts, as some authors have stated.

The Indians eat this fruit with great avidity, though it is apt to purge when fresh gathered, but loses that quality as it grows older.

The juice, or decoction of the leaves, is carminative, and eases the colic pain. The inward bark destroys worms. Between the principal roots of the tree exudes a fine transparent resin, which is collected in large lumps, is called gum animi, and makes the finest varnish that is known, superior even to the Chinese lacca.

The tree is now well known in the West Indies; and when old, the timber is in request to make wheel-work for various machines.

As this tree is made interesting to us by the mention made of it in Scripture, I shall be excused in giving some particulars from the Botanical Manuscript of Mr. Anthony Robinson, who writes thus:—

“ On the 8th July, 1759, I had the pleasure of seeing the perfect flower of the hymenæa of Linnæus expanded, from which I took this description: the receptacle of the cup was bell-shaped, permanent; the perianth consisted of four ovate, coriaceous, thick leaves, almost equal, placed scalewise, which, for the most part, dropped as soon as the petals were expanded. The leaves of the

cup were placed on the margin of the receptacle. The petals were white, five in number, ovate, erect, patent, and almost equal, as long as the cup; the stamina were ten, subulated, erect, patent filaments, one fourth longer than the petals; the germen was placed on a receptacle, arising out of a hole in the centre of the receptacle, compressed and small; the style subulate, and somewhat longer than the stamens; the stigma coronated; the anthers were large, oblong, and the flower has nothing of a pyramid in it's form. There was great difficulty in getting a complete flower, for the leaves of the cup dropped off with the least motion. The petals were considerably permanent, but the stamens more so. Linnæus has described the blossoms erroneously." This tree was first cultivated in England, in the year 1688. (*Hortus Kewensis.*)

LOVE-APPLE.—SOLANUM ;
Or, TOMATO-BERRY.

In Botany, a Genus of the Pentandria Monogynia Class. Natural Order, Luridæ.

THE love-apple, or tomato, is the fruit of the lycopersion, an herbaceous branching plant, or vine, with a hairy stem, and a rank smell.

It is a native of South America, and in all probability of Mexico; from whence it appears to have been brought by the Spaniards, who, as Barham observes, use them in their sauces and gravies; because the juice, as they say, is as good as any gravy, and so by its richness warms the blood.

Dodoens, in his *Pemptades*, published at Antwerp, in 1583, describes it as growing at that time in the continental gardens, and says, that it's fruit was eaten dressed with pepper, salt, and oil.

Parkinson, whose works were published in 1656, mentions it as being cultivated in England for ornament and curiosity only.

Even at the present time they are grown in many gardens in the country, merely for the singularity of their appearance, varying very much in size and shape as well as colour; some being of a bright yellow, and others of a fine red. It appears, by the *Hortus Kewensis*, to have been cultivated in England as early as the year 1596; but I conclude it was introduced several years previous to that date, as Gerard mentions it in the early part of his voluminous work, as growing in his garden. This author calls it *pomum amoris*; and says, “apples of love do growe in Spaine, Italie, and such hot countries, from whence myself have received seedes for my garden, where they do increase and prosper.”

“There hath happened unto my handes another sort,” says this author, “agreeing very notablie with the former, onely the fruite heereof was yellow of colour.” (Now this work, which was published in 1597, must have taken some years in compiling and printing, &c. as it contains several thousand wood plates.)

Miller says, in the 6th edition of his *Gardener's Dictionary*, “the Italians and Spaniards eat love-apples as we do cucumbers, with pepper, oil, and salt, as well as for sauces.”

The Portuguese call this fruit *tomato*, and eat it either raw or stewed.

Lunan says of this fruit, "I have eaten five or six raw at a time: they are full of a pulpy juice, and of small seeds, which you swallow with the pulp, and have something of a gravy taste. The juice is cooling, and very proper for defluxions of hot humours in the eyes, which may occasion a glaucoma, if not prevented: they are also good in the St. Anthony's fire, and all inflammations; and a cataplasm of them is very proper for burns." Miller also says, that the love-apple was used as a medicine in his time.

This fruit has long been used by the wealthy Jew families in this country; and within these last few years it has come into great use with all our best cooks, as it possesses in itself an agreeable acid, a very unusual quality in ripe vegetables, and which makes it quite distinct from all garden vegetables that are used for culinary purposes in this country. It makes a good pickle, and is preserved in various ways for the winter use, and is made into a kind of ketchup also. When boiled in soups and sauces, it imparts an acid of a most agreeable flavour: it is also served at table boiled or roasted, and sometimes fried with eggs. Love-apples are now to be seen in great abundance

at all our vegetable markets, but I do not find that they are used by the middle or lower classes of English families, who have yet to learn the art of improving their dishes with vegetables.

Mr. John Wilmot, of Isleworth, states, that in 1819 he gathered, from 600 plants, 400 half-sieves, which is about equal to 133 bushels, and that he then had many to spare. He adds, that the plants produced from twenty to forty pounds' weight each, and that some of the apples measured twelve inches in circumference.

Mr. Wilmot recommends them to be planted against a bank, as being more congenial to their nature than a wall. There are several varieties of the tomato; and that which produces fruit about the size of a cherry is the most acid, therefore the most desirable kind for private gardens, although not so profitable for market.

MEDLAR.—MESPIBUS.

In Botany, a Genus of the Icosandria Pentagynia Class.

THIS fruit was known to the ancients in Greece, as it is mentioned by one of their authors, Theophrastus, who wrote 300 years, B. C.; but it appears not to have been cultivated in Italy so early, as Pliny states that it was not known in Rome in Cato's days. Pliny mentions three kinds: the Anthedon, the Setanian Medlar, which he describes as the largest and palest in colour, and the Gallicum, or Bastard French Medlar.

Some authors affirm it to have been originally a German fruit; but the name Anthedon was doubtless given to it from its being brought from a city of that name in Greece, while the last is declared by this author to have been from France: the Se-

tanian seems to have derived its name from its growing near the marshes of Setia. It appears also to have been indigenous to this country, as it is mentioned by all our early writers. Tusser calls the fruit Medlers or Meles. Gerard says, "The medlar-tree oftentimes grows in hedges among briars and brambles: being grafted on a white-thorn, it prospers and produces fruit three times as large as those which are not grafted at all, and almost the size of small apples. We have," says he, "divers sorts of them in our orchards." He mentions the Neapolitan Medlar, with leaves like the hawthorn, and the Dwarf, growing naturally upon the Alps, and hills of Narbonne and Verona.

The Dutch Medlar, which is much larger and finer flavoured than the common sort, is the only kind now in request for planting in the garden or orchard. This fruit cannot be eaten when fresh gathered, being too harsh for the palate; but after it has been laid up for a few weeks, and undergone a putrefactive fermentation, it becomes quite soft, and is an agreeable fruit for the desserts in November and December.

This fruit is cooling, drying, and binding, especially before it is ripe, and is useful in all kinds of fluxes. The *lapilli*, or hard

seeds, are accounted good for the stone and gravel; they are an ingredient in the *syrupus myrtinus*. (*Miller's Bot. Off.*)

The medlar-tree is propagated by budding or grafting on the hawthorn, as has been noticed by Phillips:

Men have gather'd from the hawthorn's branch
Large medlars, imitating regal crowns.

It is sometimes grafted on the pear stock, but is more productive by the former mode.

The pruner must observe not to shorten any of the branches, as the fruit is always produced at the extremities of the boughs.

MELON.—MELO.—CUCUMIS.

*In Botany, a Genus of the Monœcia Syngenesia
Class. Natural Order, Cucurbitaceæ.*

THE melon most esteemed, in every part of Europe, is the Cantaleupe, which takes it's name from a town so called, about fifteen miles from Rome, where it has been cultivated since the Mithridatic war, being one of the fruits brought from Armenia by Lucullus. It grows, says Miller, in that part of Armenia, which borders on Persia, in such plenty, that a horse-load is sold for a French crown. The flesh of this melon, when in perfection, is delicious, and does not offend the most tender stomach, but may be eaten with safety. The outer coat of this melon is full of knobs and protuberances like warts: it is of a middle size, rather round than long: that with an orange-coloured flesh is the best.

The Musk Melon appears to be a native of Tartary, where it is found growing wild. It has lately been found in great abundance on the sandy plains in the neighbourhood of Jeypoor. This kind of melon has long been cultivated in Italy, from whence I conclude it was brought to England, as it was first introduced into this country in the year that Henry the Eighth received the title of "Defender of the Faith," A. D. 1520: and from Gerard's account it appears to have been nearly confined to the Royal Gardens: he had not grown it himself, but says, "They delight in hot regions, notwithstanding I have seen, at the Queen's house at St. James's, very many of this sort ripe, through the diligent and curious nourishing of them by a skilful gentleman, the keeper of the said house, called Master Fovvle; and in other places neere unto the Right Honourable, the Lord of Sussex house, of Bermondsey, by London, where from yeere to yeere there is verie great plenty, especially if the weather be any thing temperate." "It hath," adds Gerard, "the smell of musk, and from which account it is called the Musk Melon."

It is stated in Gough's British Topography, that melons were common in this country as early as the time of Edward the

Third, but were entirely lost, as well as the cucumber, during the wars of York and Lancaster.

Miller justly remarks, that, in this country, there are too many melons produced of no value by those who supply the market, who, endeavouring to enlarge their size, render the fruit of no value, and unworthy the trouble and expense, being more fit for the dunghill than the table. In warmer countries, the melon is raised with little or no trouble, and the fruit attains a peculiar fine flavour; but in this climate it requires great attention and expense to rear it, therefore—

Grudge not, ye rich, (since luxury must have
His dainties, and the world's more numerous half
Lives by contriving delicacies for you,)
Grudge not the cost. Ye little know the cares,
The vigilance, the labour, and the skill,
That day and night are exercised, and hang
Upon the ticklish balance of suspense,
That ye may garnish your profuse regales
With summer fruits brought forth by wintry suns:
Ten thousand dangers lie in wait to thwart
The process.

Cowper.

No country has a greater variety of melons than England, yet it is so rare to find them good in the market, that the demand

for them in London, compared to that in Paris, cannot be more than the proportion of one to a thousand.

I have observed, in other parts of this work, that the French have particular places where they cultivate peculiar fruits only : this is the case with melons, and where they are grown in such abundance as entirely to occupy the attention of whole villages, the culture must necessarily be better understood than in our gardens, where the same persons have to cultivate every kind of fruit or vegetable : the mind being thus divided between so many varieties, that none can be so thoroughly understood. Another great disadvantage arises in the common mode of growing melons in this country ; that is, by planting them near to cucumbers, and sometimes quite surrounded by them, and often by gourds, which, it is well known, will, by their incestuous intercourse, not only affect the seeds for future plants, but change the nature of the fruit, which has been polluted by the farina of other species of the *cucurbitaceæ*.

When a melon is perfectly fine, it is full without any vacuity : this is known by knocking upon it ; and, when cut, the flesh should be dry, no water running out, only a little

dew, which should be of a fine red colour. This fruit is principally used at desserts in England, and eaten with sugar, ginger, pepper or salt, agreeable to the taste, while in France it is chiefly served up at dinner, as a sauce for boiled meats. Miller says, "the seeds should not be sown before they are three years old, but not older than six;" although we read, in the Philosophical Transactions, of melons being raised from seeds that were forty-three years old. Melon-seeds are cooling and diuretic: they are anodyne; and were formerly used to take off stranguries occasioned by blisters; but sweet almonds are now preferred.

Pliny writes, that "melons, being eaten as meat, cool the body, and make it soluble: the fleshy substance of them applied to the eyes assuages pain, and restraineth the waterish and rheumatic flux. The root heals wens or ulcers; and being dried, stops vomits:" it was also used by the Romans in washing-balls and soap, as a good scourer.

The water-melon, or *cucurbita citullus*, is a fruit greatly appreciated in Egypt, China, the East Indies, and other hot climates, where it is cultivated to a great extent on account of its grateful coolness and delicious flavour; and the flesh of it is

so succulent, that it melts in the mouth, and its central pulp is fluid, like the coconut, and may be sucked, or poured out, through a hole in the rind, which is a most refreshing beverage to the inhabitants of warm countries.

In some parts of Upper Egypt, whole districts are covered with water-melons. They are sown in the sand, on the banks of rivers; and it is in this situation, where the burning heat co-operates with the freshness of the water, which moistens the stalks, that this fruit acquires its agreeable pulp. The Egyptians esteem it equally wholesome and agreeable. Sonnini says, their own melons are not so good as those grown in Europe.

The water-melon is allowed to be eaten in fevers and inflammatory complaints. One kind of the water-melon is pickled like gherkins, and much used by the French cooks in their fricassees; and they are sometimes baked in sweet wine. Gerard mentions, that the surgeons who belonged to the fleet, brought home many kinds of melons and pompions from the shores of the Mediterranean sea; but they could not have been ripened well in this country, before glasses were used for that purpose; and Parkinson

seems to have been the earliest English author, who gives directions for making hot-beds for melons, and covering them with bell glasses, which was in 1629.

Madame de Genlis relates, that, “the master of Lockman, the famous fabulist, who was a slave, having given him a bitter melon, was astonished to see him eat the whole of it; and, on naming his surprise, received this answer: ‘I have experienced so many benefits from you,’ said Lockman, ‘that it cannot be strange that I should have eaten without complaint the first bitter fruit which you ever presented me with.’ This answer so affected his master, that he gave Lockman his liberty.”

MULBERRY.—MORUS.

*In Botany, a Genus of the Monœcia Tetan-
dria Class.*

THAT the mulberry-tree is a native of other parts of Asia besides China and Persia, we have the authority of the Bible, where, in the 2nd book of Samuel, we read that David came upon the Philistines, and smote them over against the mulberry-trees. Again, in the Psalms, we read, “ He destroyed their vines with hailstones, and their mulberry-trees with frost.”

This fruit was first brought from Persia into Greece and Rome, and was more esteemed by the Romans, even in their most luxurious days, than any other fruit.

Ovid has celebrated this tree in his story of Pyramus and Thisbe:—

The berries, stain'd with blood, began to show
A dark complexion, and forgot their snow;

While, fatten'd with a flowing gore, the root
 Was doom'd for ever to a purple fruit.
 The pray'r which, dying, Thisbe had preferr'd,
 Both gods and parents with compassion heard:
 The whiteness of the mulberry soon fled,
 And, rip'ning, sadden'd in a dusky red.

Pliny observes (book xv. c. 24), that “there is no other tree that was so neglected by the wit of man, either by grafting, or in giving it names, except that of making the fruit large and fair.” “At Rome,” he continues, “we make a difference between the mulberries of Ostia and those of Tusculum.” This author observes, in his xvith book, c. 25, that, “of all the cultivated trees, the mulberry is the last that buds, and which it never does until the cold weather is past; and was therefore called the wisest of all the trees; but when it begins to put forth buds, it dispatches the business in one night, and that with so much force, that their breaking forth may be evidently heard.”

The mulberry was much used in medicine by the Romans, particularly for the diseases of the mouth, the windpipe, the uvula, and the stomach. The leaves and the roots were also used medicinally by them. (*Pliny, b. xxiii. c. 17.*)

The mulberry-tree is stated to have been introduced to this country in the year 1548, and it is said that it was first planted at Sion House, where the original trees still thrive, and which I have seen since the first part of this work has been put to press. The interior of these trees is so entirely decayed, that the timber has so far returned to its native earth that it will crumble in the hand; yet its branches, that are supported by props, are so well nourished by means of the bark, that the fruit and the foliage appear as luxuriant as those of the youngest trees: a strong proof of the durability of the mulberry-tree in this country. The first Duke of Northumberland said he could trace these trees back three centuries.

This fruit is mentioned by Tusser, in 1557, and by Gerard in 1597, who notices both the white and the black mulberry, and says they grow in sundry gardens in England: he adds, "that in Italy they do maintain great woods and groves of them, that their silk-worms may feed thereon."

The planting of mulberry-trees was much encouraged by King James the First, about the year 1605; but parties running so high at that period, the attention of the nation was

occupied on political affairs; and the procuring of silk in England was neglected, and has never since been attempted, although the mulberry-tree has been found to thrive exceedingly well, and the silk-worms to spin as well as in any other part of the world. The mulberry-trees are now alive, and bearing fruit in many parts of the country, that were planted in the time of James the First, which is a proof of their durability. I have lately seen a mulberry-tree, of the nigra species, which is supposed to be one of the oldest in England, in the garden of the Rev. Dr. Crumbie, adjoining Greenwich Park; and, notwithstanding its neglected and dilapidated state, it is one of the greatest curiosities I have seen in the shape of a fruit-tree in this country. It throws out ten large branches so near the earth, that it has the appearance of half a score of large trees rather than of one; and notwithstanding many of the projecting branches have been sawed off, still it completely covers a circumference of 150 feet; and although the elder-trees have fixed their abode in some parts of the trunk, and other parts are covered with ivy, yet it continues to give shoots as vigorous as the youngest tree, and produces the finest mulberries in

England. It is a regular bearer; and the gardener assured me that he gathered more than eighty quarts a week during the season.

It is observed in Evelyn's *Sylva*, that this tree possesses the peculiar property of breeding no vermin, neither does it harbour any caterpillar except the silk-worm. The fruit, when ripe, stains the hands; but when unripe, is a good cleanser.

It is one of the latest trees to blossom, and one of the earliest to ripen its fruit; which, when ripe, is of a cooling aperient nature, but quite of an opposite quality when unripe, being a strong astringent; and it has been already observed to harbour no insects, yet it is the peculiar food of a voracious worm.

The root of the mulberry-tree has an acrid bitter taste; it is powerful in its effects; and has been used with great advantage against worms, particularly the tape-worm. The juice of this fruit, mixed with cider, is esteemed the best of all the English vinous liquors.

Miller mentions eight varieties of this agreeable fruit; which appears to be again duly appreciated at the dessert, as I find it is cultivated in a hothouse belonging to T. A. Knight, Esq., who, I believe, is the first person that has attempted to force this excellent berry. In the garden of Thos. Wm. Coke, Esq.

M. P. at Holkham Hall, Norfolk, there are two mulberry-trees trained to a trellis, upon a south wall. These trees are about 16 feet high, and the lateral extent of the branches of one of them is upwards of 94 feet, and the other exceeds 97 feet. They have been planted about 30 years; and it is found that the fruit is much larger than that produced on standard trees, and their time of maturity much earlier, and affording an abundant succession from the middle of July until October. They are pruned twice a year, leaving spurs of two inches long, which, at the winter pruning, are shortened to about an inch in length. It is both a common and a bad practice to make grass-plats under mulberry-trees, by this means retarding the ripening of the fruit by the coolness of the grass; whereas the heat reflected from the earth would greatly promote the ripening.

The mulberry must have been a most valuable tree to the Persians and Chinese in ancient times, on account of it's leaves feeding the silk-worms, which enabled them to supply all the known world with silk, the price of which, in Europe, was an equal weight of pure gold, even as late as Justinian's time, A. D. 526. Madame de Genlis gives the invention of silks to the Chinese: she relates

in her work, (*La Botanique, Historique et Littéraire*) that the Empress Siling Chi, wife to Hoanti, was desired by that emperor to examine the silk-worms, and endeavour to turn their web to some useful purpose, which she did, after various trials and experiments; and by feeding them with mulberry-leaves, she discovered the means of winding the silks, and the making of silk stuffs, which she embroidered with flowers and birds. Voltaire states, that the valuable insect that produces the silk, is originally from China, from whence it was carried into Persia, though not until very late, together with the art of weaving the down in which it is enveloped.

Should a few spirited land-proprietors make the experiment of grubbing up their hedge-rows, and planting fences of mulberry-trees, I have no doubt but that in a few years they would reap as great a profit from their hedges as from their corn. It would find immediate employ for many labourers, and would in time require the assistance of thousands of the lower classes to gather the leaves and attend to the breeding and feeding of the silk-worms, the winding of the silk, &c.: indeed, the whole process is calculated as an employ for the aged and the infirm, who, being unable to do laborious work, must now,

of necessity, add to the weight of the parochial taxes. I am fully of opinion that it would be the foundation of a permanent reduction in the poor-rates, which must continue to augment, unless employ be found equal to the increase of the population. It is worthy of notice that the trees, which are planted for the feeding of the silk-worms, are seldom suffered to grow to a height to injure the land; but they are kept as shrubs or espaliers. The great nurseries of mulberry plants, in the plain of Valencia, in Spain, are produced from seeds obtained by rubbing a rope of espartes with ripe mulberries, and then burying the rope two inches under ground. As the young plants come up, they are drawn and transplanted; the trees are afterwards set out in rows in the fields, and pruned once in two years.

It is now 2,143 years since wrought silks were first introduced into Greece from Persia; and about forty-nine years afterwards the Grecians obtained them from India.

In Rome a law was passed by the senate in the reign of Tiberius, forbidding men to debase themselves by wearing silk, as being fit only for women.

Heliogabalus was the first Roman that wore a garment all silk, which must have

been about the year 220, A. D. The Emperor Aurelianus, who died in 275, denied his empress a robe of silk, because it was too dear. In the year 555 some monks, who had been in India, brought some eggs of the silk-worm to Constantinople, where, in time, they produced raw silk, which was manufactured at Athens, Thebes, Corinth, &c.

Charlemagne sent Offa, king of Mercia, a present of a belt, and two silken vests, in the year 780, which is the earliest account we have of silk being seen in this country.

In 1130 the Sicilians were taught to breed silk-worms, and to spin and weave silk; from whence the art was carried to Italy, Spain, and the south of France. Some noblemen's ladies wore silk mantles at a ball given at Kenilworth Castle, in Warwickshire, in 1286; and it was worn by the English clergy in 1534.

Stockings made of silk were first worn by Henry the Second, of France, in 1543; and in 1549 mulberry-trees were propagated through all France; and the breeding of silk-worms was much encouraged by Henry the Fourth of that country.

Henry the Eighth of England received a few pair of silk stockings from Spain; but knit silk stockings were not known until

they were made by Mrs. Montague, who presented the first pair to Queen Elizabeth. Thus silk has gradually come into use, and it is now so common in this country, that it would be difficult to find a female servant in the streets of London, or any part of the kingdom, who had not some portion of her dress composed of silk.

The alba, or white mulberry, is a native of China.

The nigra, or black mulberry, is the tree of the largest size, and the fruit is of a blackish red colour, and from it a good wine is made: this variety is a native of Persia.

The rubra, or red mulberry, is a native of Virginia.

The Japan mulberry-tree is called *Papyrifera*, from the bark of which a kind of paper is made.

The mulberry-tree's seldom producing fruit until it has arrived at a considerable age, has been much against it's cultivation; but it is now discovered, that by grafting it from the aged trees, or, to use a common phrase, putting an old head on young shoulders, it soon becomes fruitful.

M. Montague

NECTARINE.—AMYGDALUS, MUCPERSCEA.

*In Botany, a Genus of the Icosandria Mono-
gynia Class.*

THIS fruit is thought to have derived its name from Nectar, a beverage supposed to be drunk by the heathen gods.

It is a native of Persia, and was brought into this country, with the peach, about the year 1524. It does not appear at that time to have been distinguished by any name distinct from other peaches of which it is a species, as Gerard was living when it was first obtained, and published his *History of Plants* about thirty-five years later, wherein he describes four kinds of peaches, and says, "they are set and planted in gardens and vineyards: I have them all in my garden," continues he, "with many other sorts," which shows there was a variety when first introduced. He mentions one kind of peach

which appears to have been the Nectarine, *Persica rubra*. "The fruit or peaches," says Gerard, "of this sort, be round, of a red colour on the outside: the meat likewise about the stone is of a gallant red colour. These kinds of peaches are very like to wine in taste, and therefore marvellous pleasant."

Pliny says, of all the peaches, the one most admired in Rome is that named Duracina, from the solid substance of the meat; which seems to agree with the quality of the nectarine, the principal distinction of which, from other peaches, consists in the firmness and fineness of it's pulp, it's superior flavour, and smooth skin.

There have been many instances of nectarines having grown not only on peach-trees, but on branches bearing both peaches and nectarines, without either budding or grafting: whether this is owing to it's being so nearly allied to the peach, or by the pollen of the nectarine being conveyed by the bees or the wind, I have not yet been able to ascertain, although this circumstance has occurred in the gardens of persons eminent for their knowledge of fruits, as witness Mr. Wilmot, of Isleworth; James Wyatt, Esq., Hounslow; William Gilpin, Esq., East

Sheen; and in the garden of the Earl of Landeshborough, Yorkshire.

Thomson has beautifully distinguished it from the common peach in his Seasons:—

————— As I steal along the sunny wall,
 Where autumn basks with fruit empurpled deep,
 My pleasing theme continual prompts my thought;
 Presents the downy peach, the shining plum,
 The ruddy, fragrant nectarine; and, dark
 Beneath his ample leaf, the luscious fig.

The flowers have an aromatic bitter taste, and, when fresh, an infusion of half an ounce in water, or a drachm, when dry and sweetened with sugar, is a useful laxative for children. (*Brookes, vol. 6.*)

OLIVE.—OLEA.

In Botany, a Genus of the Diandria Monogynia Class.

OF this tree we have very ancient mention, since it is related, in the Book of Genesis, that the dove which Noah sent out of the ark, returned with an olive leaf in it's mouth, by which he knew that the waters of the Deluge had abated. Since this time the olive-branch has been used as an emblem of peace by all civilized nations; and it is observed that a green bough answers the same purpose amongst the most savage people in every part of the world.

That the olive-tree was anciently very much esteemed by the Hebrews, is proved by the parable of Jotham:—

“ The trees went forth on a time to anoint a king over them; and they said to the olive-tree, Reign thou over us. But the

olive-tree said unto them, Should I leave my fatness, wherewith by me they honour God and man, and go to be promoted over other trees?"—Judges, chap. ix. verse 7.

David also seems to have considered the olive as a blessing when he says, "Thy children like the olive-branches round about thy table: Lo! thus shall the man be blessed that feareth the Lord."

The Grecians appear to have thought no less of this tree and it's fruit than the Israelites. In their fabulous histories, we are informed, that the gods having been called on to settle a dispute between Neptune and Minerva, arising from the desire of each of them to give name to the new city of Cecrops; they determined to give the preference to the one who should produce the most beneficial gift to mankind. Neptune, striking the ground with his trident, created a horse; but Minerva, by causing an olive-tree to spring from the earth, gained her point, and from her was the city called Athenæ, now Athens, since the olive, the emblem of peace or agriculture, was much preferable to the horse, the symbol of war and bloodshed. Minerva and the Graces are also represented as crowned with olive-branches.

A contribution of olives was given by all

the Grecians who attended the Panathenæa, a festival held at Athens in honour of Minerva. Those who excelled in any of the games during this festival, were crowned with a wreath of olives, which grew in the grove of Academus, a place near the city, with spacious and shady walks, belonging to a man of that name. Plato having here opened a school of philosophy, all places of learning have been since called Academies.

As to the soil of the olive-tree, we may conclude, from several passages in Scripture, that it grew naturally in Syria; but particularly near Jerusalem, if we may judge by the Mount of Olives, so often mentioned in the New Testament. It was first planted in Italy in the thirteenth year of the reign of Servius Tullius, the sixth king of Rome; and in that very year was Nebuchadnezzar restored to his understanding and his kingdom, after having spent seven years among the beasts of the field.

The olive seems to have been highly appreciated by the Romans; as Pliny says, “except the vine, there is not a tree bearing fruit of so great account as the olive. Fenestella informs us,” says this author, “that during the reign of Tarquinius Priscus, which was about the 183d year from the founda-

tion of Rome, there were no olive-trees either in Italy, Spain, or Africa, which is a strong presumption that they grew originally only in Syria." Theophrastus states, that in the 440th year of the city, there were no olive-trees in Italy, but on the coast, and within forty miles of the sea; but Pliny says, in his time, they were to be found in the very heart of Spain and France, but that the olives of Syria, although smaller, produced the best oil. Virgil mentions but three kinds of olives: Columella mentions ten varieties, but says he believes they were much more numerous.

The olive-tree was first introduced into England in the year 1570; but there is little inducement for us to cultivate it, since it is by no means handsome, and we have no desire for its ripe fruit. Besides, the climate in general is not sufficiently warm to assure us of a crop, though I have no doubt but it would flourish in many situations on the south side of the Sussex Downs, where the fig-tree thrives: indeed, in some parts of Devonshire it is found as a standard tree, and is seldom injured by the frost.

According to Columella, this tree flourishes best in dry hills that are full of white clay; for in moist and fat fields it produces

plenty of leaves, but no fruit. Though this author contradicts the idea that the olive will not grow sixty miles from the sea, he states, that where an oak has stood it cannot be raised.

The olive-tree requires but little care in the cultivation, and produces fruit but once in two years. This fruit the modern Greeks during Lent eat in its ripe state, without any preparation, but a little pepper, or salt and oil.

We receive it from the south of France, from Spain, and Portugal, pickled in the following manner: it is gathered unripe, and suffered to steep in water some days, and afterwards put into a ley of water and barilla, or kali, with the ashes of olive-stones calcined, or with lime. It is then bottled or barrelled with salt and water, and in this state do we meet with it at the desserts of our most wealthy tables, where fashion has done much in having introduced and given a fondness for olives, which seems to be an acquired taste: however, they are grateful to the stomach, and are considered good to promote digestion and appetite.

But olives are chiefly cultivated for the sake of the oil that they produce, which is not only a profitable article of commerce, but

forms a principal one of food to the inhabitants of the places where these trees are found. This oil is contained in the pulp only, whereas other fruits have it in the nut or kernel. It is obtained by simple pressure, in the following manner: the olives are first bruised by a mill-stone, and afterwards put into the trough of a press for the purpose, which, by means of turning a strong screw, forces all the liquor out, which is called *virgin oil*. A coarser kind is obtained afterwards, by adding hot water to the bruised fruit.

The oil of olives seems to have been of great utility to the ancients, since Aristæus, son of Apollo by Cyrene, was regarded as a rural deity for having taught mankind to extract it, and also to make honey, cheese, and butter. The wrestlers were anointed with it; and it was made a substitute for butter, which among the Romans was used as a medicine.

We find, in the book of Leviticus, that oil formed a principal part of the meat offerings, which the Israelites presented to the Lord: “If thou bring an oblation of a meat offering baken in the oven, it shall be unleavened cakes of fine flour mingled with oil, or unleavened wafers anointed with oil. And if thy oblation be a meat offering, baken in the

frying pan, it shall be made of fine flour with oil."

Pliny informs us, that in the 500th year of the city, when Appius Claudius and L. Junius were consuls together, a pound of oil was sold for twelve ases; but that in the year 680, ten pounds of oil sold for one as, and that, in twenty-two years after that time, Italy was able to furnish the provinces with oil; and it was much used at their baths, having, as they supposed, the property of warming the body, and defending it against the cold.

The best olive-oil at present is obtained from Provence.

Olive-oil is esteemed good for the breast and lungs; it tempers the sharp choleric humours in the bowels, is useful against all corrosive mineral poisons, as arsenic, &c.; opens the urinary passages; and is good for the stone and gravel.

The wood of the olive-tree is used by cabinet-makers, from it's being beautifully veined, and admitting an excellent polish.

ORANGE.—CITRUS.—AURANTIIUM. (25. a. 12. 100)

In Botany, a Genus of the Polyadelphia Icosandria Class. Natural Order, Bicornes.

THE China, or sweet oranges, with which this country is now so amply supplied, and at such moderate prices, that all classes of society enjoy them as perfectly as if they had been indigenous to the climate, were not known to the ancient Europeans. They were first brought into Europe by Jean de Castro, a celebrated Portuguese warrior, who made them a present to the Condé Mellor, the king of Portugal's prime minister, who was only able to raise one plant from a great number that were brought to Europe. This tree, which was planted in 1548, and from which all the European orange-trees of this sort were produced, is said to be now alive at Lisbon, in the garden of Count S. Laurent.

The Romans had endeavoured to culti-

vate the citrus before the Christian era, for the beauty of the tree and its medicinal qualities; but, as it has already been observed in the history of the lemon, they could not succeed in the time of Pliny, who says, (*book xvi. c. 32*) “The Assyrian pome-citron-tree will not bear fruit out of Syria.” The same author, in his 12th book, *c. 3*, informs us that the Romans were acquainted with the Persian and Median pome-citron; but he never mentions it as a fruit to be eaten: the kernels, he states, were in particular employed by the Parthians, to sweeten the breath. In his 13th book, chap. 15, we are informed that the Romans had tables made of the citron wood, which they procured from Mauritania and Cyrenaica, in Africa.

Some authors are of opinion that the orange was the golden apple of the Hesperides; and as the ancient Europeans could not propagate it, was said to have been taken back by Minerva. The fable states, that Hercules, to obtain information of this garden, seized Nereus, god of the sea, in his sleep, who directed him to Africa. If he had to cross the deserts of that country to obtain this fruit, the allusion of its being guarded by a dragon, is both natural and just.

About the eleventh or twelfth century

several varieties of the orange were cultivated in Italy, from whence they were taken to Spain and Portugal; therefore the sweet orange, soon after it was introduced, became plentiful in these countries, where there were already abundance of stocks to graft on. Gerard notices in his work, which was published in 1597, that orange and lemon-trees grew on the coast of Italy, and in the islands of the Adriatic; and on the coast of Spain they were, says he, in great quantities, as well as in certain provinces of France, which lie upon the midland coast. At the present time, these trees are cultivated in Italy to so great an extent, that there are almost forests of them. Prince Antonius Borghese, at his palace near Rome, has upwards of seventy sorts of orange and lemon-trees, among which are some very rare kinds: it is a fruit so much esteemed in Italy, where it thrives well, that apples, pears, and cherries, have almost become extinct in that country.

The delightful perfume of an orange-grove is such as to scent the air for miles; and the tree gives a succession of flowers during the whole summer, on which account it is cultivated in all green-houses, and large orangeries have been built for the express

purpose of housing these trees: the most magnificent one is that of Versailles, built by Louis the XIVth.

Oranges were known in this country in the time of Henry the VIIIth, but I find no account of the orange-tree being cultivated in England prior to Queen Elizabeth's reign. The Seville orange-tree appears to have been first planted the year before the East India Company was incorporated, and two years previous to the return of Sir Francis Drake, our first circumnavigator. It is said to have been introduced by Sir Francis Carew, and first planted at his seat at Beddington in Surrey. Chancellor Bacon, who wrote about twenty years after this time, mentions the housing of orange and lemon-trees in this country to keep them in the winter. He also states, that if the seeds of oranges be sown in April, they produce an agreeable salad.

Henrietta Maria, queen of Charles the 1st, had an orange-house and orange-garden at her mansion, Wimbleton Hall, in the parish of Wimbleton, in the county of Surrey; and by an estimate and survey which was made in the month of November, 1649, for the sale of that property, by order of the Parliament, we find how highly orange-trees

were estimated even in those turbulent days. It is described as follows:—

“ In the north side of which sayd oringegarden, there stands one large garden-house ; the outwalls of brick, fitted for the keepinge of oringe-trees, neatly covered with blue slate, and ridged and guttered with lead ; the materials of which house, with the greate doores, and the iron thereof, with a certeine stone pavement lying before these doores, in nature of a litle walke, four foote broad, and seventy-nine foote long, wee valew to bee worth £66. 13s. 4d.

“ In which sayd garden-house there are now standing, in squared boxes fitted for that purpose, fortie-two oringe trees bearing fayre and large oringes, which trees, with the boxes, and the earth and materials therein feeding the same, wee valew at ten poundes a tree, one tree with another, in toto, amounting unto £420. 0s. 0d.

“ In the sayd garden-house there now allsoe is one lemon-tree, bearing greate and very large lemons, which, together with the box that it grows in, and the earth and materialls therein feeding the same, wee valew at £20. 0s. 0d.

“ In the sayd garden-house there now allsoe is one pome citron-tree, which, togeather

with the box that it growes in, and the earth and materialls feeding the same, wee valew at £10. Os. 0d.

“There are also belonging to the said orange-garden six pomegranet-trees, bearing faire and large fruits, which, togeather with the square boxes they growe in, and the earth and materialls therein feeding the same, wee valew at three poundes a tree, one with another, in toto, £18. Os. 0d.”

There were also eighteen orange-trees that had not borne fruit, which, with their boxes, were valued at £5 a tree, one with another, £90.

A white marble fountain, with a statue of Diana upon it, and “a fayer led cestern belonging to it, and a chanelled pavement,” were esteemed to be worth £7.

“Another fountain of white marble, with a statue of a mermaid, with the cestern, &c.” were valued at £10.

Orange-trees have been grown in the southern parts of Devonshire for more than 100 years past. When trained to walls, they produce large, handsome fruit, but not of equal value to the lemons grown in the same situation. Most of these were raised in this country from seeds, and they are thought to be more hardy than trees imported; but

the orange-trees which are brought every year from Italy, and sold principally at the Italian warehouses in London, are as large as those of our own growth would be in twenty years. With proper care, these trees will have good heads, and produce fruit in about three years. The Mandarin orange was not cultivated in England until 1805.

We have lately seen orange-trees imported from the south of France, which have arrived in small tubs; and so well packed, that the fruit and blossoms remained on the trees when they reached the neighbourhood of London.

In the Philosophical Transactions, No. 114, there is a very remarkable account of a tree standing in a grove near Florence, having an orange stock, which had been so grafted on, that it became in it's branches, leaves, flowers, and fruit, three-formed; some emulating the orange, some the lemon or citron, and some partaking of both forms in one. These mixed fruits never produce any perfect seeds: sometimes there are no seeds at all in them, and sometimes only a few empty ones.

The Maltese graft their orange-trees on the pomegranate-stock, which causes the juice to be of a red colour, and the flavour

*What
Lic*

to be more esteemed. The Rev. Mr. Hughes, in his Natural History of Barbadoes, mentions the golden-orange as growing in that island. He describes the fruit as a large fine orange, of a deep colour within, from whence it derives the name Golden Orange. He adds, "This fruit is neither of the Seville or China kind, though it partakes of both, having the sweetness of the China mixed with the agreeable bitterness and flavour of the Seville orange."

The juice of oranges is a pleasing acid, and good in inflammatory and putrid disorders, both acute and chronical. The juice contains an essential acid salt, mixed with much mucilage. The salt may be obtained in crystals, by diluting the juice, clarifying it with whites of eggs, and using evaporation. In this way a saline extract may be made, capable of being preserved, and possessed of the same medicinal qualities as the juice, which is said to be very powerful in the scurvy. When Commodore Anson sailed round the world, his men, who were afflicted with the scurvy, were surprisingly recovered from that disorder by the oranges they found in the island of Tinian.

Orangeade, an agreeable drink made of orange-juice, water, and sugar, may be

given, says Lemery, to people in the height of a fever.

The Seville orange is esteemed far preferable for medicinal purposes, and the blossoms of this species are the most odoriferous: the leaves are also used in medicine. The yellow rind of these oranges, separated from the white fungous matter under it, is a grateful, warm, aromatic bitter, often used as a stomachic and corroborant. It is warmer than the peel of lemons, of a more durable flavour, abounds more with a light, fragrant essential oil, which is lodged in distinct cells on the surface of the peel. The rind of the China orange has a weak smell, and is seldom employed for medicinal purposes. Seville oranges also produce the best marmalade, and the richest wine: it is from the flowers of this kind of orange, that orange-flower water is distilled. These oranges are often preserved whole as a sweetmeat, and are justly admired.

The seeds of the orange kind will be found, on nice examination, different from the seed of any other fruit. They have been anatomized by the curious, and, with the aid of a good microscope, are found to be almost as wonderful, in their formation, as the human frame when dissected.

Signior Francesco Lana, in his Prodrumus to some philosophical discoveries, tells us, that there is a way of producing oranges, without sowing or planting the trees, only by infusing the flowers in oil of almonds; for that this oil will, every year afterwards, at the proper season, produce both flowers and ripe oranges.

PEACH.—PERSICA, *or* AMYGDALUS.

In Botany, a Genus of the Icosandria Monogynia Class.

ALL the ancient authors agree that the peach-tree is a native of Persia; and it appears that the fruit was thought to be of a poisonous nature. It is evident there had formerly been traditionary tales of this fruit having been sent into Egypt to poison the inhabitants. Columella says, in his 10th book:—

And apples, which most barbarous Persia sent,
With native poison arm'd (as fame relates):
But now they've lost their pow'r to kill, and yield
Ambrosian juice, and have forgot to hurt;
And of their country still retain the name.

Pliny, in his 15th book, chap. 13, mentions, that they had been stated to have pos-

essed venomous qualities, and that this fruit was sent into Egypt by the kings of Persia, by way of revenge, to plague the natives; but he treats this story as a mere fable, adding, that the name of Persica evidently bespeaks them a Persian fruit. Cato has not mentioned them; and Pliny adds, that it was not long since peaches were known in Rome, and there was great difficulty in rearing them. He informs us they were brought from Egypt to the isle of Rhodes, where they could never be made to produce fruit; and from thence to Italy. He says, moreover, that it was not a common fruit in Greece or in Natolia. This author states again, in book 23, chap. 7, that he considered it the most harmless fruit in the world; that it had the most juice with the least smell of any fruit, and yet caused thirst to those who ate of it.

Peaches were evidently cultivated in France at an early period, as Columella continues his account of this fruit, by stating,—

Those of small size to ripen make great haste;
Such as great Gaul bestows observe due time,
And season, not too early, nor too late.

Pliny says, book 15, chap. 12, “as for the French and Asiatic peaches, they bear the

name of the regions and nations from whence they come.”

It is stated that the peach-tree was not cultivated in England before the year 1562; and by whom it was first introduced, or from what country it was procured, we have no authentic account, although Gerard wrote his work soon after, which was published in 1597, wherein he describes the white peach, the red peach, the yellow peach, and the d'avant peach, and adds, “I have them all in my garden, with many other sorts.”

The peach-tree, he continues, “soone commeth vp; it beareth fruit the third or fourth yeer after it is planted, and it soone decaieth; and is not of long continuance.” From this account, and finding it in the list of fruits, published in the year 1557, by Thomas Tusser, who mentions peaches, white and red, there can be little doubt but that it was introduced as early as the reign of Henry the Eighth. I am decidedly of opinion that it was brought into England, from Italy, by Wolf, the king's gardener, in the year 1524, as at this time we find that he brought the apricot from the latter country.

Of this deliciously melting fruit we have now a great variety, from the small nutmeg

peach which ripens in July, to the large October peach, which is more agreeable to the sight than the palate. This fruit has been almost equally multiplied in its varieties with the apple, by sowing the stones, and lately by the ingenious method of impregnating the blossoms. T. H. Knight, Esq. President of the Horticultural Society, has procured a new peach by this operation : he impregnated the pistillum of the blossom on an almond-tree, with the pollen of the peach-flower ; and this almond, when planted, produced a peach-tree instead of one of its own kind, and has since ripened peaches.

The peach varies so much in quality, that many sorts are not worth the growing ; it is therefore to be hoped that we shall soon have them exploded, and the better varieties cultivated in situations most congenial to their tender nature. At Montreuil, a village near Paris, the whole population is exclusively employed in the cultivation of peaches, which has maintained the inhabitants for several ages ; and the consequence is, that they raise better peaches than any other part of France affords.

I have often observed, that the finest flavoured peaches have been gathered from trees of the greatest age ; and I have met with

many instances of these trees bearing amply when they have been from forty to sixty years old. These trees generally yield a crop, when younger ones fail.

Father Hennepin, a religious missionary, who first described the regions of Louisiana in his voyage down the Mississippi, gives an account of the numerous peach-trees which he observed in every direction in that part of America; and as the latitude is the same as that part of Asia, of which these trees are the natural production, there can be no doubt but they are indigenous to Louisiana as well as to Persia, although in many parts of America the peach is regarded as a foreign fruit, it having been introduced from Europe before Louisiana had been explored.

This fruit is now cultivated with such success in some parts of North America, that it is not uncommon to see orchards containing 1,000 standard peach-trees, which are so productive, that the fruit is used to fatten swine: from a single orchard have been procured, after the pulp is fermented and distilled, 100 barrels of peach brandy.

Peaches are forced with considerable success. These of necessity must bear a high price in the market, so long as glass continues

an object of heavy taxation. The expense of fuel, it appears, will not be so excessive, since the heating of flues by steam promises to answer.

It is observed, that the best peaches of every kind are red next the sun, and of a yellowish cast towards the wall: the pulp should also be of a yellowish tint, and juicy; the skin thin, and the stone small. To have them in perfection, they should not be gathered until they will fall into the hand by the slightest touch of the finger.

This is one of the fruits in particular which is recommended to be eaten in the morning, in preference to the usual time of dessert. Brookes says, “peaches agree well with persons of hot constitutions and costive habits, especially if they are eaten in a morning fasting.”

The flowers of the peach-tree are used in medicine: when made into a syrup, they are given as an aperient to children, and are recommended as a great destroyer of worms.

It should be observed not to get the flowers from those peach-trees that have been grafted upon almond-stocks, as the flowers partake of the property of the stock, which greatly alters their virtue. The plum is a purgative, the almond not at all so.

Gerard also says, "the leaves of the peach-tree boiled in milk; will destroy the worms in young children."

The young leaves are used by cooks to flavour blanc-mange, custards, puddings, &c.; and a liquor resembling noyau is made by steeping peach-leaves in white brandy, and, when sweetened with sugar-candy, and fined with milk, it is difficult to distinguish it from the flavoured cordial of Martinique.

Michaelmas is the time recommended for the winter pruning of the nectarine, as well as the peach-tree, when, with little attention, the blossom-buds will be known from the wood-buds; the latter being less turgid, longer, and narrower, than the blossom-buds. In shortening the branches, observe to leave a wood-bud at the end instead of the fruit-bud. Care should be taken to nip off the ends of the strong shoots in the month of May, which will cause them to throw out new boughs in every part of the tree, as it produces its fruit from the young wood, either of the same, or at the most of the former year's shoot.

Peach-trees are often injured by a desire to retain too full a crop on the branches, which not only prevents the present fruit from coming to maturity, but, by exhausting the

tree, prevents its fruiting in future years. When the peach has attained the size of a small gooseberry, the trees should be carefully thinned, leaving the fruit not nearer than from four to six inches to each other.

From the wood of the peach-tree the colour called rose-pink is procured.

PEAR.—PYRUS.

In Botany, a Genus of the Icosandria Pentagynia Class.

THE accounts we have of this fruit are of great antiquity, as the pear-tree was consecrated to Minerva previous to the olive.

The earliest writers mention it as a fruit growing abundantly in Syria and Egypt, as well as in Greece; and it appears to have been brought into Italy from these places, about the time that Sylla made himself master of the latter country; although there is no doubt but the Romans had several kinds of this fruit before that time. Virgil speaks of pears which he had from Cato; and Columella mentions a considerable variety of pears. Pliny writes of them in his 15th book, chap. 2, as being then exceedingly numerous in Italy: “some have,” says he, “no other name than the country from whence they came,

as the Syrian, the Alexandrine, the Numidian, the Grecian, the Picentine, the Numan-tine, &c. &c.:" but of all the pears, he mentions the Crustumine as the most delicate and agreeable; next to that the Falernian pear was esteemed, and so called for the abundance of juice it produced, which he compares to wine. The Tiberian pears were so named because they were the sort Tiberius the emperor preferred; others were named after the persons who had introduced or cultivated them; some from the season when they ripened, as the barley pear, &c.; and many from their odour, as the aromatic and laurel pears. "Some are reproached," says he, "with the name of proud pears, because they are earliest ripe, and will not keep:" there were winter pears, and pears for baking, &c. "Both pears and apples," continues this author, "have the properties of wine, on which account physicians are careful how they give them to their patients; but when sodden in wine and water, they are esteemed wholesome." Again he states, book xxiii. chap. 7, "all pears whatsoever are but a heavy meat, even to those in good health, and the sick are debarred from eating of them; and yet, if they are well boiled or baked, they are exceedingly pleasant, and moderately whole-

some: when sodden or baked with honey, they agree with the stomach."

Some pears were used as a counterpoison against the venomous mushrooms; the ashes of the pear-tree wood are also used for the same medicinal purpose.

The wild pear-tree, as well as the crab-apple, appears to be a native of this country, where it is often found growing, particularly in Somersetshire and Sussex.

At what period the cultivated pear was first brought into this country we have no account; but we may surmise that the Romans did not neglect the propagation of this fruit when they were masters of Britain. The pear is mentioned by all our early writers. Gerard says, in his time, to write of pears and apples would require a particular volume: every country, says he, "hath his peculiar fruit; myselfe knowe some one curious, who hath in one peece of ground, at the point of three score sundrie sorts of pears, and those exceeding good; not doubting but, if his minde had been to seek after multitudes, he might have gotten together the like number of those of worsse kindes. Master Richard Pointer," he says, "has them all growing in his ground at Twicknam, near London, who is a most cunning and curious

grafter and planter of all manner of rare fruits; and also in the ground of an excellent grafter and painful planter, Master Henry Banbury, of Touthill Street, neere vnto Westminster; and likewise in the ground of a diligent and most affectionate louer of plants, Master Warner, neere Hornsey Down, by London; and in divers other grounds about London."

Miller mentions eighty varieties of the pear in his day, and, at the present time, they are so much increased, that Mr. Lee, of Hammersmith, assured me that he possessed 213 kinds of pear-trees. We trust that, while the Horticultural Society are seeking for new varieties, those of established fame will not be neglected. It is desirable to have our orchards planted with a variety, that we may have some for all seasons and for various purposes; but it is equally to be wished, that the best of each sort should be selected, not only of the dessert kinds, but those for baking and preserving, as well as those for making perry, which is one of the justly admired British beverages.

—And taste revived,
 The breath of orchard big with bending fruit
 Obedient to the breeze and beaten ray,
 From the deep loaded bough a mellow shower

Incessant melts away. The juicy pear
 Lies, in a soft profusion, scattered round.
 A various sweetness swells the gentle race,
 By nature's all-refining hand prepared,
 Of tempered sun, and water, earth, and air,
 In ever-changing composition mixed.

Thomson.

Perry is considered the best liquor that can be drunk after a surfeit of mushrooms.

An agreeable wine is made from the wild pears and crab-apples.

In general pears are windy, and improper for weak stomachs: those are best that are quite ripe, and have a sweet juice, and then they are seldom noxious; unless eaten to excess. (*Brooks.*)

The pear-tree is liable to be much injured, if pruned by those who do not understand the nature of it. The blossoms are commonly produced from buds at the extremity of the last year's shoots, and, as these are often cut off by the unskilful pruner, it prevents their producing fruit, and causes the boughs to send out new branches, which overfill the tree with wood. The summer is the best time to look over pear-trees, and to remove all superfluous and foreright shoots, which would too much shade the fruit. If this be carefully done, they will require but little pruning in the autumn.

Pears that are to be kept for the winter use, should hang as long on the trees as the state of the weather will allow. They should then be put in a heap, in an open and dry situation, for about ten days; then wiped dry with a woollen cloth, and packed close from the air and moisture. But to keep this fruit in it's greatest perfection, small earthen jars should be selected, about the size of the pear, which should be packed separately in clean oat chaff, and tied down with skin, or brown paper cemented with pitch. These jars should then be packed in a chest, or dry closet, with the bottom upwards. Pears are found more generally productive when grafted on quince stocks, than upon those of their own kind or the white thorn.

The timber of the pear-tree is of a yellowish colour, and is used for making carpenters' tools, measuring rulers, picture frames, and a variety of purposes. Gerard says, "the timber of the wild pear is very firm and solid, and good to be cut into moulds." The plates in his book were cut out of this wood, as were, says he, "breastplates for English gentlewomen."

PINE-APPLE PLANT.—

ANANAS.

*A Species of the Bromelia, and of the Class
Hexandria Monogynia. Natural Order,
Coronariæ.*

THIS delicious fruit takes its name of pine-apple from the resemblance it bears to the cones of the pine-tree. It is considered the king of fruits, being second to none in flavour, and always appearing at table with a crown.

The ananas is an herbaceous plant, with leaves somewhat resembling those of the aloe. It grows wild, in vast abundance, in many parts of Africa and South America; and is cultivated in the hotter islands of the West Indies, where it requires but little attention to procure this elegant fruit in perfection and plenty.

In Jamaica, pine-apples have become so prolific, that they are often used to flavour rum, and a wine is made from the fermented juice of the sweeter sorts, nearly equal to

Malmsey. Lunan observes, in his *Hortus Jamaicensis*, that these plants grow most luxuriantly when they are associated together; and the suckers from them are stronger and finer, than when the plants are separated at a distance from each other: by this their roots are likewise kept cooler and moister.

It is stated, that the first pine-apples raised in Europe, were by M. la Cour of Leyden; and the Sloanean manuscripts in the British Museum inform us, that the Earl of Portland had the honour of introducing this plant into England from Holland, in the year 1690.

In the Fitzwilliam Museum, at the University of Cambridge, is a painting by Netscher, of a landscape with a pine-apple, and there stated to be the first that ever fruited in England, which was in Sir Matthew Decker's garden at Richmond, in Surry, grandfather to the late Lord Fitzwilliam. Gough says also, that it was Sir Matthew Decker, Bart. who first introduced the culture of the ananas.

Brookshaw relates, that when the pine-apple first produced fruit in England, it was deemed so great a curiosity, and of so much importance, that persons of rank came from France, Holland, and Germany, to see it,

but he omits to say, when and where it was first fruited. I conclude it must have been very rare, even had it in any instance produced fruit, before the year 1716; as Lady Mary Montague, on her journey to Constantinople in that year, remarks the circumstance of pine-apples being served up in the dessert, at the electoral table at Hanover, as a thing she had never before seen or heard of; and from her ladyship's rank, we may conclude that she would naturally have met with them at the English tables, had they not been very uncommon.

This fruit must have been known in England long before it was attempted to be grown here, as Lord Bacon mentions it in his *Essay on Plantations or Colonies*, which was published near a century before the introduction of the ananas plant by the Earl of Portland; but I am strongly persuaded that the pine-apple had been cultivated in this country at a much earlier period than that mentioned by Sloane; and this opinion has been strengthened by a curious old picture, which the Earl of Waldegrave obligingly showed me, in the breakfast-room of his beautiful residence of Strawberry Hall, Twickenham. The painting represents King Charles the Second in a garden before his

palace at Ham, attended by two of his favourite breed of spaniels, where Rose, the royal gardener, is presenting his Majesty with the first pine-apple. This picture was in the collection of the celebrated Horace Walpole, whose descriptive account informs us, that it was bequeathed by Mr. London to the Rev. Mr. Pennicott, of Ditton, by whom it was presented to himself. He adds, the painting is supposed to be by Daneker. It is probable that the method of raising the ananas not being correctly understood, the plants were, by some accident, lost in this country, until they were introduced a second time.

By an engraving of the pine-apple, which was published by Robert Furber, gardener, at Kensington, in the year 1733, we may judge that the raising of pines was not then brought to any degree of perfection, as the fruit is represented short, having not more than four or five protuberances in height, and the crown appears small and weak. From the drawings of the other fruits, which seem to be from fine specimens, it is natural to suppose that this fruit was also copied from the best pine then produced.

We have now a considerable variety of this exquisite fruit, and new kinds are fre-

quently procured by the curious from the seed, which is very small, of a kidney shape, and lodged like the seeds of berries in the tubercles; but the pine is chiefly propagated by planting the crowns or suckers, which latter come more quickly to maturity, and are therefore more generally preferred. The most rare kind is the green pine, which was brought from Barbadoes; the black pine is of late introduction. Of the older varieties, the sugar-loaf pine, with a yellowish flesh, is greatly preferred to the oval-shaped fruit of a paler colour. The Welbeck-seedling is a pine justly admired, as is the blood-pine, a variety grown by Mr. Wilmot of Isleworth, who makes the following just remark: "like the strawberry," says he, "pines would be better reduced to four or five varieties."

Dr. Wright says, pines have a detersive quality, and are better fitted to cleanse the mouth and gums than any gargle whatever.

This fruit was long confined to the tables of the rich and the luxurious, on account of the expense of raising it in stoves, but the cultivation of the pine-apple is now so well understood in this country, that notwithstanding the bar made by the high price of glass, and the expense of fuel, this fruit is seen in our markets, at one fourth of the price

they produced a few years back; and pineapple ices are already become as common as those of raspberry, in the shops of the London confectioners.

Should the heating of stoves, by steam, answer to the expected extent, and the duty on garden glass be relinquished, we shall soon have African gardens of great extent on the banks of the Thames, and pine-apples cried through our streets two for a crown.

The late Sir Joseph Banks says, that it does not require the foresight of a prophet to foretell, that in less than half a century we shall have forcing houses of such an extent, that our markets will be supplied with the aki, and the avocado pear of the West Indies, the flat peaches, the mandarine orange, and the Litchi of China; the mango, (which has already been ripened at Kew, in the autumn of 1808), the mangostan, and the durion of the East Indies, and possibly other valuable fruits.

Since writing the above account, this fruit has for the first time been imported as an article of commerce from the Bermuda islands. The importation consisted of about 400 pine-apples of the species called the Green Providence. These were purchased by Mr. Mart, of Oxford Street, fruiterer, who informed me,

that about two thirds of the quantity arrived in good condition. As this experiment has been found to answer, we may in future expect a regular supply of pine-apples, not only from the Bermudas, but also from the West India islands. I observed, that those pines which were packed with the roots, arrived in a better state than others that were cut off in the usual manner.

PLANTAIN.—MUSA PARADISIACA.

In Botany, of the *Polygamia Monœcia Class.*
Natural Order, Scitamencæ.

THIS tree received its generic name in memory of Antonius Musa, the freedman and physician of Augustus, who for curing his imperial master of a dangerous disease, by recommending to him the use of the cold bath, was honoured by the senate with a brazen statue, which was placed near that of Æsculapius. Antonius was a botanist, and is supposed to be the author of the treatise, *De Herbâ Botanicâ.*

The plantain is a native of Guinea, from whence it was brought to the Canary Islands, and from thence carried to the West Indies; where it is cultivated with much care in all the islands, the fruit being regarded among the greatest blessings bestowed upon the in-

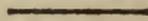
habitants of that climate. Dr. Wright says, the island of Jamaica would scarcely be habitable without this fruit, as no species of provision could supply it's place: even flour, or wheaten bread itself, would be less agreeable, and less able to support the laborious negro, so as to enable him to do his business, or to keep up his health.

The fruit of the plantain-tree is about a foot long, and two or three inches in diameter; it forms a principal part of the food of the negros, who either roast or boil it, when it becomes a palatable and strengthening diet: it is often boiled in their mess of salt beef, pork, or fish, &c.; many Europeans, when accustomed to it, prefer it to bread. When ripe, it is lusciously sweet, and makes good tarts. The Spaniards dry and preserve it as a sweetmeat, and it is thought to be the most wholesome of all confectionary. It is one of the very best foods to fatten domestic animals and fowls, giving a firmness and exquisite flavour to their flesh.

The plantain is cultivated in Egypt, and most other hot countries, where it grows to perfection in about ten months from it's first planting, to the ripening of it's fruit. This tree is only perennial by it's roots, and dies down to the ground when it has fruited, after

which, it is cut down: several suckers then soon come up from the roots, which in six or eight months produce fruit, so that by cutting down the stalks at different times, there is a constant succession of fruit all the year.

When the plantain is grown to it's full height, the spikes of flowers appear in the centre, which is about four feet long. The flowers come out in bunches, those in the lower part of the spike being the largest; each of these bunches is covered with a sheath of a fine purple colour, which drops off when the flowers open. The upper part of the spike is made up of male flowers, which are succeeded by the fruit, that is of a pale yellow colour when ripe; and the spikes of fruit often weigh upwards of forty pounds. This plant has been reared in our stoves since the year 1690.



The Banana Tree: Musa Sapientum.—

This tree so much resembles the plantain, that it is only known at first by the dark spots on its stem, which the other has not. This is a wholesome fruit, and is used at desserts. From it a pleasant drink is made, exceeding our cider. When baked in tarts, or boiled in dumplings, this fruit tastes like

the apple: when dried in the sun, it resembles a delicious fig. It also makes a good marmalade, which is recommended as a great relief for coughs. The fruit of the banana-tree is said to comfort the heart, is cooling, and refreshes the spirits. Labat states, that when the natives of the West Indies undertake a voyage, they make part of their provision to consist of a paste of banana, which, in case of need, serves them for nourishment and drink. For this purpose they take ripe bananas, and having squeezed them through a fine sieve, form the solid fruit into small loaves, which are dried in the sun, or in hot ashes, after being previously wrapped in the leaves of Indian flowering reed.

The fruit of the banana-tree is about four or five inches long, of the size and shape of a middling cucumber; it generally grows in bunches, weighing upwards of twelve pounds. The Spaniards have a conceit, that if you cut this, or the fruit of the plantain athwart, or crossways, there appears a cross in the middle of the fruit, and therefore they will not cut any, but break them. The Franciscans dedicate this fruit to the Muses, and therefore call it *musa*. The Portuguese call it *ficus derta*. Lodovicus Romanus, and Brocard, who wrote a Description of the Holy Land,

call the bananas Adam's Apples, supposing them to be the fruit that Eve took and gave to Adam, which is as erroneous as the account of the Abbé Poyart and others, who state the leaves to be those of the tree from which our first parents made themselves aprons, as from their size, which is from five to seven feet in length, and from one to two feet in breadth, they could not have required sewing together for that purpose. These leaves are said to be as strong as parchment. The leaves of the plantain, as well as the banana, grow so rapidly, that by placing a thread, they will be found to grow an inch in an hour. The young leaves are so soft, that they are employed in dressings for blisters, &c. When full grown, they are so large that they are used as substitutes for napkins and table-cloths: when dried, they are made into mats and stuffings for mattresses, &c.

If a knife be thrust into a plantain-tree, there will come out a great quantity of clear water, which is very rough and astringent, stopping all sorts of fluxes.

The fruit of the banana-tree has been ripened in our hothouses; but as the tree grows very tall, the size of the leaves requires more room than most gardeners are willing to allow it in the stove.

From the rapidity of the growth of the banana, it is of too porous a nature to merit the name of wood, and the Indians have ever been accustomed to make cordage, and a kind of cloth, from it's fibres. The celebrated circumnavigator, Dampier, notices the process more than a century ago, as follows:—

“ They take the body of the tree, clear it of it's outward bark and leaves, cut it into quarters, put it into the sun, when the moisture exhales; they then take hold of the threads at the ends, and draw them out: they are as big as brown thread; and of this they make cloth in Mindanas, called *saggen*.”

In Jamaica, there have been upwards of £200 given by an order of the Assembly, for the best specimens of this hemp. Dr. Stewart West gained a premium, and his process may be seen in the Hortus Jamaicensis.

From experiments tried on the hemp made from the plantain-tree fibre, which was manufactured into rope at his Majesty's dock-yard, Port Royal, in Jamaica, the following results were obtained:—

	<i>Cwt.</i>	<i>qr.</i>	<i>lb.</i>
King's nine-thread inch-rope broke			
by the weight of	6	1	14

Cwt. qr. lb.

Dr. West's specimen broke by the weight of	6	2	0
Specimen from the parish of St. An- drew	6	1	0
Do. Do. Portland . . .	4	2	0
Do. Do. St. George . .	3	2	0

The above specimens were all made of the same size as the king's rope.

PLUM.—PRUNUS.

*In Botany, of the Icosandria Monogynia
Class.*

PLUMS are so numerous in their varieties, that to describe them separately would be endless, as not only every country, but almost every district, has its peculiar sorts of this fruit.

The Grecians added to their native plums those of Syria, Egypt, and Persia, and the Romans not only possessed themselves of the plums of all the known world, but employed their ingenuity in making additional varieties. Columella, in his tenth book, speaking of this fruit, says---

———— then are the wicker baskets cramm'd
With Damask and Armenian, and wax plums.

Pliny states, in his fifteenth book, chap.

13, that there was a great variety of this fruit in Italy; and it is not long, says he, since the country about Grenada and Andalusia began to graft plums upon apple stocks, which were called apple plums; others upon almond stocks, which he calls a clever device, as it produced both fruits, the stone being like the kernel of an almond. Those grafted upon nut-stocks, he states, retained the form of the mother graft; but they got the taste of the stock wherein they were set.

The wild sloe and bullace are indigenous to this country, and in all probability the only kinds that are natives; but, like the wild crab-apple, they have furnished stocks for every variety of their own species; and this fruit appears to have been attended to in early days, if we may judge from the variety that Gerard had in his garden at Holborn, in 1597. "I have," says he, "three score sorts in my garden, and all strange and rare: there be in other places many more common, and yet yeerely commeth to our handes others not before knowne. The greatest varietie of these rare plums, are to be found in the grounds of Master Vincent Pointer, of Twicknam."

The Damson, or Damascene plum takes its name from Damascus, where it grows in great

quantities, and from whence it was brought into Italy about 114 years B. C. Pliny says, this plum required the warmer sun of Syria: we may therefore conclude, it is still more inferior in our climate.

The Orleans plum takes it's name from the part of France so called. This is a handsome but an indifferent fruit, and not equal to the common Muscle plum in flavour, although it is more cultivated than even the Green Gage, which is not only the most agreeable, but also the most wholesome of all the plums. This latter plum was called the Reine Claude, from having been introduced into France by Queen Claude, wife to Francis the 1st of that country, but it bears various names in different parts of France. It is often called *damas verd*; at Tours it is named *abricot verd*; at Rouen, where it grows abundantly, they call it *la verte bonne*. This plum received the name of Green Gage from the following accident:—The Gage family, in the last century, procured from the monastery of the Chartreuse at Paris, a collection of fruit-trees. When these trees arrived at the mansion of Hengrave Hall, the tickets were safely affixed to all of them, excepting only to the Reine Claude, which was either omitted to have been put on, or

was rubbed off in the package. The gardener, therefore, being ignorant of the name, called it, when it first bore fruit, the Green Gage. The compliment was justly due to the family for the introduction of this excellent plum, which is more acceptable to the country at large, than the trifling respect can be to the family of Gage. Lord Cromwell brought several sorts of plums from Italy into this country, in the reign of Henry VII.: among them was the Perdrigon.

The Bonum Magnum is our largest plum, and greatly esteemed for preserves and culinary purposes. A plum of the same size and shape, but of a yellower hue, has lately been introduced by a Mr. Coe, of Brompton, and is called Coe's Golden Drop. In flavour it partakes both of the Green Gage and the Apricot. I have several standard trees in my garden at Bayswater, which are very productive; and the fruit has the quality of keeping perfectly sound and good until near Christmas, if it be gathered with the stalk or a part of the branch, and suspended in a dry room.

Plums are now forced in the highest perfection, which enables the gardener to supply the spring desserts with the autumnal fruits.

Dried plums are principally imported from Portugal, and the neighbourhood of Marseilles in France; from whence also prunes are brought: this latter variety is mostly used in medicine.

Plums of all kinds are considered more agreeable than wholesome, but like the pear, they lose their bad qualities by baking. Plums in general are moistening, laxative, and emollient, except the bullaces and sloes, which are astringent. They are cooling, quench thirst, and create an appetite, and therefore agree best with hot constitutions; but they do not sit easy with those that have weak stomachs. In years that plums are very plentiful, and consequently much eaten, fluxes generally abound; hence it appears that they ought always to be eaten very moderately, and then they should be quite ripe and sound. (*Brookes.*) The damson plum produces a tolerably pleasant wine, and an exceedingly agreeable kind of jelly called damson cheese. The wild plum was used in medicine by the ancients, and the bark of the tree is thought to be equal to the Peruvian bark in cases of intermitting fevers.

POMEGRANATE.—PUNICA.

In Botany, a Genus of the Icosandria Monogynia Class. Natural Order, Pomaceæ.

It takes it's name from pomum granatum, a kernelled apple.

The early part of the Bible notices the pomegranate as a native of Syria. It is mentioned as one of the fruits discovered in the Land of Promise; previous to which discovery, while the Israelites sojourned in the wilderness, it was selected as the ornament to the robe of the Ephod.

“And beneath, upon the skirts of it, thou shalt make pomegranates of blue, and of purple, and of scarlet, round about the hem thereof; and bells of gold between them round about. A golden bell and a pomegranate, a golden bell and a pomegranate, upon the hem of the robe round about.”

The sacred history also informs us, that

the two large pillars of brass, made by Hiram for the porch of Solomon's temple, were ornamented with carvings of the pomegranate; and by the writings of Solomon we may conclude, that a choice wine was made from it in Judea:—

“I would cause thee to drink of spiced wine of the juice of my pomegranates.”

Again it is mentioned by the Prophet Joel:—

“The vine is dried up, and the fig-tree languisheth; the pomegranate-tree, the palm-tree also, and the apple-tree; even all the trees of the field are withered.”

The Grecians esteemed this fruit, and mentioned it in their fabulous stories as growing in the Elysian Fields. When Ceres earnestly entreated Jupiter for the restitution of her daughter Proserpine, who had been carried off by Pluto, he promised to grant it on condition that she had tasted no food in the infernal regions. Unfortunately she had gathered a pomegranate from a tree, and eaten a few of the seeds, as she was walking in the Elysian Fields. This was made known by Ascalaphus, who alone had seen it; and the enraged mother turned him into an owl for his unseasonable information.

The pomegranate-tree was first brought

to Rome from Carthage, in the days of the murderous Sylla; and about thirty-three years after this celebrated city was totally destroyed by Scipio, the second Africanus. Pliny says, in the 21st chapter of his 13th book, that “the territory of Carthage claims to itself the Punic apple, which some call pomegranate; from the flowers of which we get the colour to dye cloth, called puniceus (pink or light red).” He speaks of nine varieties, book 23, chap. 6; and, in the former book, he describes the sweet sort, the sour, the temperate, the styptic or austere, and one kind tasting of wine. “The difference,” he says, “between the pomegranate of Samos and that of Egypt, consists in their flowers; the one being white and the other red. The rind of the sour kind,” he says, “is the best for tanners and curriers to dress their leather with.” This author recommends pomegranates to be divided into quarters, and steeped in rain-water for three days; which he states makes a good drink for those who are troubled with weak habits. The flowers, rind, and every part of the fruit, were used medicinally by the Romans; on which subject he has written at large, book 6, chap. 23.

Some authors affirmed, that Grenada, in

Spain, owes it's name to this fruit, which was brought from Africa, and planted in that part. The capital of this province has a split pomegranate for it's arms, which is seen on the gate-posts of the public walks, and is represented in carving, or by painting, on all the public buildings.

The pomegranate-tree was first cultivated in England in the year 1548, during the reign of Henry the Eighth; and I find it mentioned among the trees that fruited in the orange-house of the unfortunate Charles the First.

The pomegranate-tree blossoms well in the warmer counties of England; but the fruit comes to no perfection in the open air. The kind generally planted for ornament is the double scarlet, which is very beautiful when in blossom.

Gerard writes on the medicinal qualities of this tree, and informs us, that he reared several plants from the seeds previous to 1597.

The pomegranate has been planted in the West-India islands, where the fruit grows larger and finer flavoured than in Europe. The French, in the island of St. Vincent, had a riddle on the pomegranate, on account of

the resemblance which the calix bears to a crown.

“Quelle est la reine, qui porte tout son royaume dans son sein?”

Lord Bacon notices this fruit, and recommends the use of the wine of the sweet pomegranates for complaints of the liver, or, if that cannot be had, the juice of them newly expressed. He says, “let it be taken in the morning, with a little sugar; and into the glass into which the expression is made, put a small piece of green citron-peel, and three or four whole cloves: let this be taken from February till the end of March.” The juice of the pomegranate is preferred even to that of oranges in cases of fever. The rind of the fruit and the flowers are the parts directed for medicinal uses: they are both powerful astringents, and have long been successfully employed as such, both internally and externally for gargles, and in diarrhœas, &c. The dose in substance is from half a drachm to a drachm, in infusion or decoction, to half an ounce. (*Woodville.*)

As an astringent, the rind of the fruit, boiled in water with cinnamon, port-wine and guada jelly to be added, is recommended in Dancer’s Medical Assistant.

The rind also produces as good ink as that made from galls.

Sloane says, that the leaves beaten with oil of roses, applied to the head, cures it's aching. The rind of the fruit, together with the bark of the tree, is still used in some parts of Germany, in the preparation and dyeing of red leather, in imitation of Morocco.

PUMPKIN, or POMPION.—
PEPO.

*In Botany, of the Monœcia Syngenesia Class.
Natural Order, Cucurbitaceæ.*

THE pompion is a coarse, inferior kind of melon, which has long been known in Europe, as Pliny mentions it in his 19th book, chap. v. where he says, cucumbers of an exceeding large size are called pompions. Again, in his 20th book, chap. ii. he says, “as for the fruit, called pompions or melons, being eaten as meat to cool the body, and the fleshy substance applied to the eyes assuaging their pain,” &c.

Aiton states it to be a native of the Levant, and says it was first introduced into this country in 1570. Gerard says, “as there is a wild sort of cucumbers, of melons, citruls, and gourds, so likewise there be certaine wild pompions, which grow in Barbarie, Africa, and most parts of the East and West

Indies." This author says, "the pulpe of the pompion is neuer eaten raw, but boiled in milk and buttered; is not onely a good wholesome meate for man's bodie, but, being so prepared, is also a most phisicall medicine for such as have an hot stomacke, and the inward parts inflamed:" he continues, "the flesh or pulpe of the same sliced, and fried in a pan with butter, is also a good and wholesome meate:" but he condemns the method of using it with apples in pies.

This fruit has lately been raised in the neighbourhood of London to an extraordinary size, weighing nearly two hundred weight. These are sold in the shops of the metropolis, more as a curiosity than for use. I have found them, when boiled in their own moisture, *viz.* without water, an excellent vegetable with meat, having a taste resembling artichokes: with the addition of the peel and juice of lemons, they make an agreeable pudding.

Pompions are used by the Jews in the Feast of Tabernacles, when they form a kind of cradles into which they put a great number of pompions.

In Hughes's Natural History of Barbadoes, he says, "Pumpkins make a great part of the food of the poorer sort, in the summer-time, as well in Asia and Africa as in Ame-

rica." He adds, that they are distinguished in Barbadoes by the names of the White, the Blue, the Marbled, and the Garden Pumpkin. The latter differs from all the rest by having no seed, but is propagated by slips. He says, also, that they are boiled and eaten with flesh meat, and much used by the poorer sort in soups.

The jugglers, or quacks, in some parts of America, extract the pulp out of pompions, and fill them with flint stones, with which they make a great noise, and pretend to frighten away all the complaints of their superstitious patients.

QUINCE.—CYDONIA.

In Botany, a Genus of the Icosandria Pentagynia Class.

LINNÆUS has joined this genus, as well as the apple, to the pear, while Miller separates it on this account: he says, “the pear will take upon the quince by grafting or budding, and so *vice versâ*; but neither of these will take upon the apple, nor that upon either of these.” But we have a particular account transmitted to us by Pliny, that quinces were grafted upon apple-stocks in his time, (book xv. chap. 14): he says, “as for the quince-apples that come of a quince grafted upon an apple-stock, they are called *Appiana*, after Appius, who was of the Claudian House, and who first devised and practised this mode of grafting; these apples,” continues he, “have the smell of the quince, are of a red colour, and the size of the Claudian apple.”

The Quince was called *Cydonia*, after an island in the Mediterranean, now named Candia. It is a fruit that the ancients held in high estimation: they considered it as the emblem of happiness, of love, and of fruitfulness: it was dedicated to Venus, and the temples of Cyprus and Paphos were decorated with it. The statues of the gods also who presided at the nuptial bed, were ornamented with this fruit; and the bride, before she entered into the marriage-bed, used to eat of the quinces. Columella says, quinces not only yield pleasure but health also: he speaks of three kinds; the Struthian, the Must Quince, and the Orange or Golden Quince. The learned Goropius maintains that quinces were the golden apples of the Hesperides, and not oranges, as some commentators pretend. In support of his argument, he states, that it was a fruit much revered by the ancients, and he assures us that there has been discovered at Rome a statue of Hercules, that held in it's hand three quinces; this, he says, agrees with the fable which states, that Hercules stole the golden apples from the gardens of the Hesperides.

Pliny speaks of quinces in his 15th book, 11th chap. and says, "there are many kinds

of this fruit in Italy, some growing wild in the hedge-rows, others so large that they weigh the boughs down to the ground, some of a green hue, others inclining to gold colour: these were called *chrysomela*, which seems to give authority to the above account of Goropius. The only kind that was eaten raw, he states to have been raised by grafting the large quince upon the stock of a small kind, called *struthea* (the pear-quince). He adds, "all kinds of this fruit are in use now-a-days, within the waiting or presence chambers of our great personages, where men give attendance to salute them as they come forth every morning." He also states, that they were used to garnish the images which stand about the bed's head and sides.

The same author, in his 23^d book, chap. 6th, writes much on the medicinal qualities of this fruit. "Quinces," says he, "when eaten raw, if quite ripe, are good for those that spit blood, or are troubled with hemorrhage." The juice of raw quinces, he states to be a sovereign remedy for the swollen spleen, the dropsy, and difficulty of taking breath, particularly to those who cannot draw their breath but in an upright position. The flowers, either fresh or dried, he tells us,

are good for the inflammation of the eyes. The root of the tree was used more as a charm than a medicine for those afflicted with the scrofula.

Quince-trees grow wild on the banks of the Danube, and they are stated to have been brought into this country from the island of Crete, now called Candia. They have long been cultivated in this kingdom, as our earliest authors on this subject mention them. Gerard says, they were often planted in hedges and fences to gardens and vineyards in his time. By the Hortus Kewensis it appears that the quince was first introduced in the reign of Henry the VIIIth, 1537, which is evidently an error, from the circumstance above related by Gerard, who was then an old man.

Quinces are used in medicine, being of an astringent and stomachic quality. The expressed juice of this fruit, in small quantities, as a spoonful or two, is of service in nausea, vomiting, &c. Lord Bacon says, "It is certain that the use of quinces is good to strengthen the stomach; but we take them to be better if they be used in that which they call *quiddeny* of quinces, than in the bodies of quinces themselves, because they

lie heavy in the stomach; but those quid-denies are best taken after meals, alone; before meals, dipped in vinegar.”

Quinces grow in such abundance in some parts of the Wealds of Sussex, as to enable private families to make quince-wine in quantities of from 1 to 200 gallons in a season. It is an agreeable wine, that improves much by keeping, and is greatly esteemed by asthmatic persons. A gentleman residing at Horsham, in Sussex, assured me, that he was not only relieved in an asthmatic complaint of long standing, but completely restored to his health by the use of this wine, which was made after the following receipt:—

“Cut large quinces in quarters, and core them, as the seeds give the wine an unpleasant flavour; grind them in the same manner as apples for cider, and put to every gallon of pummis a gallon of water; let it stand a day or two, then strain it off. Should the pummis smell very strong of the fruit, it will bear a little more water, and to every gallon put three pounds and a quarter of moist sugar; tun it and stop it quite close in the following March; rack it off; cleanse the cask from the sediment, and put it back again; and in the second year

bottle it off." Quince-marmalade is greatly admired by those who are fond of the fruit.

The Portugal quince is the most esteemed. In the pruning of the quince-tree little is required, except to keep the stem free from suckers, and to cut all branches that rub each other.

RASPBERRY-BUSH.—RUBUS IDÆUS.

*In Botany, a Genus of the Icosandria Poly-
gynia Class.*

THE raspberry was but little noticed by the ancients, and that principally on account of it's medical virtues. Pliny does not consider it of so much importance as the bramble, in mentioning which he says, "there is a third sort of bramble, which the Greeks call *Idæa*, after Mount Ida. This fruit is smaller than the other bramble-berries, with less thorns on the stem; and these not so sharp or hooked. The flowers of this raspis," he continues, "being tempered with honey, are good to be laid to watery and blood-shotten eyes, as also the Erysipelas. Being taken inwardly, and drunk with water, it is comfortable medicine to a weak stomach."

The red-raspberry is indigenous to this

country, and is often found wild in the northern counties. I have also seen it in the wild state growing freely in some woods on the South Downs of Sussex. It is a fruit that appears to have been much improved by cultivation, as Gérard writes on it, previous to 1597, as not being equal to the blackberry, although he says it is planted in gardens. He calls it Raspis, or Hindberry: "the fruit," he adds, "is in shape and proportion like that of the bramble: red, when it is ripe, and covered over with a little downiness, of taste not very pleasant." He does not mention the white raspberry, nor has Tusser, who wrote in the previous reign.

The large kinds of raspberries, both red and yellow, were brought from Antwerp to this country.

The yellow or white raspberry is most admired at dessert: indeed all the white fruits of the berry kind, are sweeter than the coloured, but other fruits that are coloured are generally sweeter than the white.

The red raspberry is considered the finest for flavouring ices, jams, &c. A third kind is cultivated, which produces two crops a year, but I have seldom met with the October raspberry possessing much flavour.

Raspberries are much cultivated in the neighbourhood of Isleworth and Brentford; from whence those are sent to London in swing carts, which are used by the distillers for making raspberry brandy, raspberry vinegar, &c. as also those used by confectioners and pastry-cooks; but the raspberries which are intended for the table, are brought by women on their heads: their load consists of a round, or basket, containing twelve gallons, of three pints to a gallon; and, although the distance is ten miles from Isleworth to Covent-Garden market, they regularly perform the journey in two hours; for which they are paid three shillings and sixpence. From Hammersmith these industrious women will take a load three times a day, for which they receive eighteen-pence per load. These female fruit porters come to the vicinity of London for the season, from Wiltshire, Shropshire, and Wales: in their long journies they seldom walk at a less pace than five miles per hour.

The dietetic and medicinal virtues of raspberries being the same as those of the strawberry, will be noticed in the history of that fruit.

“Raspberry and strawberry wines,” says Dr. Short, “are of all made-wines the most delicious to the taste; they lightly and plea-

santly stimulate the nerves of the mouth and nose with a most agreeable smell and taste, which proceeds from a mixture of their essential salt and fine oil." This author recommends these wines in scorbutic disorders as a purifier and sweetener of the blood. "Mixed with water," he says, "they make a good reviving draught in ardent fevers."

The wood of the raspberry-bush produces fruit but one year; therefore that should be carefully cut down below the surface of the earth, and the young shoots should be shortened to about two feet in height: the middle or end of October is the proper time for this pruning. The fruit is produced from young branches out of the last year's shoots or suckers.

STRAWBERRY PLANT.—

FRAGARIA.

In Botany, a Genus of the Icosandria Poly-
gynia Class.

THIS most agreeable fruit does not appear to have been cultivated by the ancients; and it seems only to have grown in the mountainous parts of Greece and Italy, the climate being too warm in the other parts of these countries. It is slightly mentioned by Virgil, Ovid, and Pliny, and even the latter author does not mention the fruit as a diet or medicine. In speaking of the arbutus-tree, book 15, chap. 24, he says, “the tree is termed the strawberry-tree; and there is not any other tree that gives fruit which resembles the fruit of an herb growing by the ground.” Again he says, speaking of the bramble-berry,—“as the ground strawberry differs in carnosity from the fruit of the arbutus-tree.”

The red-wood strawberry is a native of this country; and several modern writers state, that the white strawberry, as well as the green strawberry, are indigenous to these kingdoms. The latter is often called the pine-apple strawberry, from its excellent flavour.

Gerard seems to consider only the red strawberry as a native of this climate. He says, "strawberries do grow upon hills and valleys, likewise in woods, and other such places that bee something shadowie. They prosper well in gardens: the red strawberry euery where; and the other two, white and green, more rare, and are not to be founde saue onely in gardens."

Shakespeare says :

"The strawberry grows underneath the nettle;
And wholesome berries thrive, and ripen best,
Neighbour'd by fruit of baser quality."

The scarlet strawberry is a native of Virginia, where it grows wild; and was brought to this country in 1629. It is the earliest sort, and is the best strawberry for forcing.

The hautboy-strawberry was procured also from America; from which we have raised the improved kind, called the globe-hautboy.

The Chili strawberry takes its name from that part of America so called, from whence it was brought by M. Frazier, engineer to the French king. It was cultivated in the royal gardens at Paris, from whence some of the plants were conveyed to Holland, and from the latter place they were brought to England, by Mr. Miller, in the first year of the reign of King George the Second, 1727.

The Alpine strawberry is a native of Germany, and was planted in England in the year 1768.

The varieties of the strawberry have, like those of other fruits, been so increased, that, to describe them distinctly, would be almost impossible, even with the assistance of coloured drawings. The President of the Horticultural Society, Thomas Andrew Knight, Esq., states, that he has at this time not less than 400 varieties of this fruit in his garden. Among those which he has raised, is one from the white Chili strawberry and the pollen of the black strawberry.

Mr. Keen of Isleworth, in the county of Middlesex, who is one of the greatest growers of strawberries for the London market, has obligingly furnished me with his observations on the culture of this fruit, which

furnishes a strong instance of the advantage of botanical knowledge. Mr. Keen states, that the want of education deprived him of the benefit of written information; but it will be found that he has studied the book of nature to advantage. I observed, says Mr. Keen, that some of my strawberry plants gave out abundance of male blossoms, but produced no fruit. I therefore, in the year 1809, had all these plants taken from my beds, and had other beds made with the fruit bearing, or female plants only; but finding my crop entirely fail, and suspecting the error I had made, I procured some blossoms of the male plants, which having put into a bottle of water, I placed on one of my beds, and in a few days perceived the fruit began to swell and thrive on all the plants contiguous to the bottle.

Having tried the same experiment in several parts of my garden with the like effect, I was convinced of the necessity of the male plants in producing fruit, since which time, I have planted about one male plant to ten female plants, which I find to be the most profitable proportion, as my beds have since been so productive, that it has been scarce possible to gather the fruit without bruising others. Some strawberry plants

have both male and female flowers on the same plant. These are not so profitable; and I find it more advantageous to raise my plants from seed than by suckers. When the fruit is quite ripe, I sow them in a rich moist soil, and in one year the Alpines produce fruit, but the other kinds require two years." From the seed, Mr. Keen has procured a new variety of this fruit, to which he has given the name of Imperial Strawberry; it is of a dark ruby colour, and, in appearance, the most beautiful of all the strawberries; but I find the flavour of it is not superior to that of other kinds. Mr. Keen recommends the month of March, as the best season for making new beds.

The strawberry is our earliest fruit, and, as the harbinger of the *fructus horæi*, its appearance is as welcome, as its flavour is agreeable.

I find that the old custom of putting clean straw round strawberry plants, is still continued in some parts of Suffolk. The late Sir J. Banks concludes, that their English name was derived from the practice of putting straw under them when the fruit began to swell, as the plant has no relation to straw in any other way; and no other European language applies the idea of straw in any other shape

to the name of the berry, or to the plant. Sir Joseph adds, although the custom of putting straw round the plants is now very little attended to, it's utility is very evident, as in dry parching weather it would be the means of keeping the plants moist, and, in wet showery weather, it would both keep the fruit clean, and prevent its rotting so rapidly.

As a dietetic fruit, the strawberry affords but little nourishment; the moderate or even plentiful use of it is salubrious, and recommended to those of inflammatory or bilious habits. Boerhaave considers the continued use of this fruit, as one of the principal remedies in cases of obstruction and viscidities, and in putrid disorders. Hoffman furnishes instances of some obstinate diseases being cured by strawberries, and other mild sweet subacid fruits. Strawberries should be taken sparingly by those of a cold inactive disposition, where the vessels are lax, the circulation languid, or digestion weak.

This fruit is generally sent to dessert in its natural state, although often with cream and sugar; but it is more esteemed when Burgundy or claret wine is substituted for the cream. Strawberry jam is much admired; and for ice creams the flavour is generally preferred to that of raspberries.

The pine strawberries make an agreeable dessert wine, equally rich as mountain; but possessing greater fragrance and acidity: the latter quality is generally too predominant in our English made-wines, which proceeds more from the want of attention in the making of wines, than from the quality of the fruits.

In the monastery of Bathalla, in Portugal, is the tomb of Don John, son of King John the First, of Portugal; which is ornamented by the representation of strawberries, this prince having chosen them for his crest, to show his devotion to St. John the Baptist, who lived on fruits.

SERVICE-TREE.—SORBUS.

*In Botany, a Genus of the Icosandria Tri-
gynia Class.*

THIS fruit, which is a native of England, is now as little known, and as rare in the London market, as the fruits of the most distant parts of the world; and the service-berry-tree is now so thinly scattered over the country, that many farmers do not even know its existence.

Pliny writes of it as a fruit held in estimation by the Romans. He mentions four sorts, some round, resembling apples, others shaped like pears, others like an egg, and one variety which was only used medicinally. He states, that Cato would have service-berries preserved, (book xv. c. 21), and in the 17th chapter of the same book

he gives directions for preserving them in two different ways: again he mentions them in his *23d* book, *17th* chap. and says their medicinal virtues are the same as those of the medlar.

Gerard describes two kinds, and says, "they are found in woods and groves in most places of England. There be many small trees thereof, in a little wood a mile beyond Islington: in Kent it groweth in great abundance, especially about Southfleete and Gravesend."

The service-tree is still occasionally to be met with in the hedge-rows in Kent, and in the Wealds of Sussex, of the size of a moderate oak-tree; as also in the north of England and Wales.

The service-berry, which is an umbilicated fruit, partakes of the quality of the medlar, both in the green and in the ripe state. It is gathered in bunches, and put into, or hung on, a cleft stick of about a yard long, which becomes a mass of berries: in this state the fruit is sold by the country people, and then hung up in a garden to receive the damp air of the night, which causes it to undergo a kind of putrefactive fermentation, and in this soft state it is eaten, and has a

more agreeable acid than the medlar. Chancellor Bacon speaks of service-berries in his time as a garden fruit. In Italy and the south of France, they are still served up in the dessert.

I conclude, that the great size of the service-tree has been the cause of excluding this fruit from our gardens: but it is, from it's beauty, particularly when in blossom, a desirable tree for planting in parks or paddocks; and as the timber is so valuable, and now become so rare, I hope to see it more cultivated. There is a remarkable fine tree of this kind now growing at Kingsfold farm, in the parish of Ruser, near Horsham in Sussex.

I know many noblemen and gentlemen object to fruit-bearing trees being planted on their estates, on the principle that it encourages depredators to injure their plantations; but this seems but a poor excuse for depriving themselves and the public of the beauty and variety which the blossoms give at one season of the year, and the fruit at another, particularly to those who have park-keepers or bailiffs on the premises.

Furber of Kensington, who in 1733 published his twelve engravings of fruits for the desserts of each month, gives a representation

of the Italian services for October, and the English maple-leaved service-berries for the month of November.

This fruit is reckoned to be very restraining, and useful for all kinds of fluxes; but when ripe it is not altogether so binding.

The timber of the service-tree is of a fine hard grain, and the variations pleasing when wrought into cabinet goods: it is esteemed by the turner and carver, as well as for the making of gun-stocks. It is used by millwrights for cogs to wheels, &c. in preference to any other wood: it is also a very durable wood for buildings that are exposed to a northern aspect.

TAMARIND.—TAMARINDUS.

In Botany, of the Monadelphica Triandria Class, and not of the Triandria Monogynia, as classed by Linnæus. Natural Order, Lomentaceæ.

THIS name is derived from *tamar*, the Arabic name for the date; and it is to the Arabians that we owe a knowledge of the use of this fruit in medicine. The ancient Greeks knew nothing of it, and the first authors who prescribe the tamarind are Serapion, Mesue, and Avicenna.

The tamarind-tree is a native of both Indies, and thrives also in Egypt, Palestine, Arabia, and other parts of Asia; and it appears, by Johnson's edition of Gerard, to have been cultivated in England previous to 1633. Miller states, that he has had it grow upwards of three feet high in one summer, and produce flowers the same year

it was sown; but this must have been accidental, for none of his older plants blossomed, although he had them twelve feet high, and eighteen years old. There is a fine healthy tree of this species now in the Royal Botanic Gardens at Kew, which flowered a few years back for the first time.

The tree grows to a great size, with large spreading branches, and a thick and beautiful foliage. The leaves are pinnate, composed of sixteen or eighteen pairs of leaflets, without a single one at the end: they are ovate-oblong, quite entire, smooth, sessile, of a bright green, spreading during the day, but closing, so as to lie over each other in the night: they have an acid taste. The flowers come out from the sides of the branches, on a long, upright, common peduncle, six or eight together, in loose bunches, of a yellow colour, veined with a reddish purple.

What we style the fruit of the tamarind is only the pistil of the flowers, which become pods, that are thick and compressed, from two to five inches in length, with from two to four or six seeds: these pods become of a reddish brown as they ripen. The fruit is, properly speaking, composed of two pods: the outer pod is fleshy, and the inner one

thin as the finest parchment; between these two there is a space of about a quarter of an inch all the way, which is filled up with a soft pulpy substance, of a tart but agreeable taste, which is what we use as the fruit: this, and the stones which are enclosed in the inner pod, are fastened together by a great many slender fibres from the woody stalk which runs through the pod, and conveys the vinous juice, that afterwards hardens, into the viscous matter of the pulp. Lunan says, the tree is exceedingly common in Jamaica, where it grows to vast bulk; and he gives the following account of preparing the fruit. "The pods are gathered when full ripe, which is known by their fragility, or easy breaking on a small pressure between the finger and the thumb. The fruit is taken out of the pod, cleared from the shelly fragments, and placed in layers in a cask; and the boiling syrup from the teache, or first copper in the boiling-house, just before it begins to granulate, is poured in till the cask is filled: the syrup pervades every part quite to the bottom, and, when cool, the cask is headed for sale. The more elegant method is with sugar, well clarified with eggs, till a clear transparent syrup is formed, which gives the fruit a much pleasanter flavour.

The East-India tamarinds are preserved generally without sugar, and are better adapted for an ingredient in medical compositions. The best method of preserving them is said to be by putting alternate layers of tamarinds and powdered sugar in a stone jar: by this means the tamarinds preserve their colour and taste more agreeably.

In the Indies, and in some parts of Africa, tamarinds are used as food, and are made into a sort of confection with sugar, and eaten as a delicacy, which in the violent heats of these climates is cooling, and, at the same time, keeps the bowels in a proper state of laxity. The fruit is also frequently made an ingredient in punch, and seldom fails to open the body. A very agreeable cooling drink is made by simply mixing water with a few spoonfuls of it when preserved. Dr. Cullen was of opinion, that it was best to preserve tamarinds in the pods. They contain a larger proportion of acid, with saccharine matter, than is usually found in the acid dulcet fruits, and are therefore not only employed as a laxative, but also for abating thirst and heat in various inflammatory complaints, and for correcting putrid disorders, especially those of a bilious kind, in which the cathartic, antiseptic, and

refrigerant qualities of the fruit have been found equally useful. When intended merely as a laxative, it may be of advantage to join them with manna, or purgatives of a sweet kind, by which their use is rendered safer and more effectual. Three drachms of the pulp are usually sufficient to open the body; but to prove moderately cathartic, one or two ounces are required. The leaves are sometimes used in sub-acid infusions; and Alpinus says, a decoction of them kills worms in children. (*Wright.*) Dr. Zimmerman prescribes tamarinds in putrid dysentery.

The sour taste of tamarinds proves that acid particles abound greatly in them, and a chemical analysis gives further proof of this. There is indeed no alkali to be obtained from this fruit, otherwise than by distilling it in a retort with quicklime. A simple analysis of it yields no other principle but acid and sulphur.

It is not uncommon to find an essential salt crystallized on the branches of the tamarind-tree, which greatly resembles cream of tartar in all respects, and is no other than the genuine salt of the plant, formed by the sun's drying up the accidental extravasated juices.

The leaves of the sycamore, in hot sea-

sons, are often found thus covered with crystals of their essential salt, which is sweet, and very much of the nature of sugar. The lime-tree produces a like saccharine matter, which, being given to a person to drink, will be found of the same purgative virtue as manna.

Tamarinds are an ingredient in the well-known medicine called lenitive electuary.

WALNUT.—JUGLANS.

In Botany, a Genus of the Monœcia Polyandria Class.

THE walnut-tree is evidently a native of the northern parts of Persia and China, where it grows wild; and the Grecian names for this fruit, Persicon and Basilicon, Persian or Royal Nut, bespeak it to have been brought from Persia, either by the monarchs of Greece themselves, or sent thither from the kings of Persia. According to Pliny's account, book 15, chap. 22, "the Greeks afterwards called them *caryon*, on account of the heaviness of the head which their strong smell caused."

"Walnuts were first brought into Italy by Vitellius, a little before the death of Tiberius the emperor; and the Romans," continues Pliny, "honoured them with the name of

Juglandes, viz. Jupiter's nuts." They were much used at weddings by this people.

This author has written much on their medical virtues, book 23, chap. 18, wherein he says, that "the more walnuts one eats, with more ease will he drive worms out of his stomach; and that, eaten before meals, they lessen the effects of any poisonous food; eaten after onions," he states, "they keep them from rising, and prevent the disagreeable mell." 5/

The bark of the walnut-tree was considered a sovereign remedy for the ringworm. The leaves bruised and stamped with vinegar, and so applied, put away the pain of the ears.

After Mithridates was vanquished, Cneius Pompeius found in his secret closet or cabinet, among many precious jewels, the receipt of a certain antidote against poison, written in the hand-writing of Mithridates, in his private note-book, as follows:—

"Take two dry walnut kernels, as many figs, of rue twenty leaves; stamp all these together into one mass, with a grain or corn of salt." Under which was written, "whoever accustoms himself to eat of this confection in a morning, next his heart there shall no poison hurt him that day."

Walnuts are considered stomachic: their oil is a good medicine for the stone and gravel. The bark of the tree is a strong emetic, either green, or dried and powdered. The unripe fruit is used in medicine for the destruction of worms, and is administered in the form of an extract. I find, if the water in which the outside covering of walnuts has been steeped, be thrown on the ground, the worms will immediately come out of the earth: anglers often use this means to obtain bait for fishing.

The ancients considered that walnuts chewed by a person fasting, would, if applied, cure the bite of a mad dog.

The green nuts are cordial, alexipharmic, and said to be of great use in all contagious, malignant distempers, and the plague itself.

The nuts, preserved young, are an excellent sweetmeat, and are good to be eaten in a morning, in time of pestilential distempers, to prevent infection. I have been favoured by the following receipt for preserving young walnuts, by a family who assure me that they have known them succeed in obstinate costiveness when all other remedies have failed: even a small part of one of these sweetmeats will give relief.

Take green walnuts, in the proper state

for pickling, and boil them till tender; take them out, and stick a piece of lemon-peel to every nut; and to every fifth one, a clove and a small piece of mace. To every pound of nuts, add one pound of moist sugar with water enough to make a good syrup; put in the nuts, and simmer them till the syrup is thick, and let them stand ten days; then clarify half the above quantity of sugar, and boil as before; and, when cold, cover them close for use. By keeping, the syrup will shrink, so that after a year or two, a little more syrup will be required to be added.

Gerard says, “the green and tender nuts, boyled in sugar, and eaten as suckarde, are a most pleasant and delectable meate, comfort the stomache, and expell poyson.”

The effluvia of walnut-trees is hurtful to the head, on which account it is not safe to sit uncovered beneath them, nor is it desirable to plant them too near dwelling-houses. Pliny says, “the oak will not thrive near the walnut-tree;” and Mr. Keen, who is so justly celebrated for growing of strawberries, informs me, that the walnut-tree is so injurious to strawberry beds, that they seldom bear fruit in the neighbourhood of that tree.

These trees require but little pruning;

and they are often injured by cutting and lopping the branches while growing.

The largest plantation of walnut-trees in England, at the present time, is in the county of Surry.

Gerard says, "the walnut-tree groweth in fields neere common highwaies, in a fat and fruitful ground, and in orchards." It therefore appears to me, that it must have been introduced earlier than the date mentioned in the Hortus Kewensis (1562), as this was only about thirty years before Gerard wrote his account, when these trees seem to have been very common in the fields.

The walnut-tree was formerly cultivated in England for the sake of the wood, which was in great esteem for cabinet goods, before mahogany and other curious woods were imported from America into this kingdom, which was about the beginning of the eighteenth century, when the use of mahogany was discovered by the following chance:—Dr. Gibbons, an eminent physician, was building a house in King Street, Covent Garden. His brother, who was a West-India captain, brought over some planks of this wood as ballast, which he thought might be of service in his brother's building; but the

carpenters finding the wood too hard for their tools, it was laid aside as useless. Soon after, Mrs. Gibbons wanting a candle-box, the Doctor called on his cabinet-maker (Wollaston, in Long Acre) to make him one of some wood that lay in his garden. Wollaston also complained that it was too hard; but the Doctor insisted on having it done; and, when finished, it was so much liked, that the Doctor ordered a bureau to be made of the same wood, which was accordingly done; and the fine colour, polish, &c. were so pleasing, that he invited all his friends to see it. Among them was the Duchess of Buckingham. Her Grace begged some of the same wood of Dr. Gibbons, and employed Wollaston to make her a bureau also. On this the fame of mahogany and Mr. Wollaston was much raised; and furniture made of this wood became general.

The timber of the walnut-tree is much esteemed by coach-builders, and also for making gun-stocks.

WHORTLE-BERRY.—VACCI- NIUM:

Often called HURTS, or HURTLE-BERRY, and
BILBERRY.

—
*In Botany, a Genus of the Octandria Mono-
gynia Class.*

THERE are several varieties of this fruit, some of which are black, others red, and some white. The whortle shrub is a native of this country, and grows on most of our wild heathy commons and uncultivated hills: it is found in great abundance on Leith Hill, which is the most elevated part of Surry. The fruit seldom reaches the London market, although it is much admired by many people either in tarts or with cream. The berries are gathered by the children of the cottagers, and by them carried to the nearest market towns, and often in quantities that load several asses.

Gerard says, they formerly grew in Finchley Wood, near Highgate, and on Hampstead Heath. The red kind, which makes the fine purple dye, is found abundantly in several parts of Westmoreland, and the white whortleberries principally in Lancashire; but most of our northern hills abound with some of the varieties. From their growing in high bleak situations, they are often called wind-berries.

I have never seen this shrub cultivated, although it is more ornamental than many foreign shrubs that are raised with great difficulty. The berry, which is a size larger than that of the juniper, is covered with a fine blue powder, similar to the bloom of our finest purple plums.

There is also another species of heath-berry, growing on the mountainous parts of the northern counties, as well as in Scotland, on which the heathcocks and grouse feed.

There have been no less than fifteen varieties of the whortle-berry brought into this country from North America, between the years 1761 and 1796. (*Hortus Kewensis.*)

THE

FRUIT OF THE LOTUS-TREE

OF

THE ancients has been made so interesting to us, by the inimitable pens of Homer and Ovid, as well as the mention made of it by Herodotus, Strabo, Pliny, and other authors of antiquity, that I am induced to give their accounts of this celebrated fruit; although it is now either entirely lost, or so much degenerated, as not to be known by their descriptions.

Some authors suppose it to have been a fabulous fruit, and only to be found in the poet's imagination. This idea is absurd. Ovid has described it as particularly, or more so, than any other fruit mentioned in his *Metamorphoses*.

The Lotus-tree was evidently a native of Africa; and in all probability was improved, by being cultivated on the sands of the coast, where, not being indigenious, it has been lost from the neglect of the inhabitants,

during the revolutions which that part of the world has undergone. If this fruit has not already been discovered under some other appellation, we may still expect that our researches in the interior of Africa will restore the lost treasure. It is now about 2700 years since Homer related the enchanting effects this fruit had on the followers of Ulysses :

Nine days our fleet th' uncertain tempest bore,
 Far in wide ocean, and from sight of shore ;
 The tenth we touch'd, by various errors tost,
 The land of Lotus and the flowery coast.
 We climb'd the beach, and springs of water found,
 Then spread our hasty banquet on the ground.
 Three men were sent, deputed from the crew,
 (An herald one) the dubious coast to view,
 And learn what habitants possess the place.
 They went, and found a hospitable race ;
 Not prone to ill, nor strange to foreign guest.
 They eat, they drink, and nature gives the feast ;
 The trees around them all their fruit produce,
Lotos the name, divine, nectareous juice !
 (Thence called *Lotophagi*), which whoso tastes,
 Insatiate riots in the sweet repasts,
 Nor other home, nor other care intends,
 But quits his house, his country, and his friends :
 The three we sent from off th' enchanting ground
 We dragg'd reluctant, and by force we bound ;
 The rest in haste forsook the pleasing shore,
 Or, the charm tasted, had return'd no more.

Hom. Odys.

From Ovid's elegant fable of Dryope, we learn from whence this tree is supposed to have derived its name.

Not distant far a wat'ry lotus grows;
 The spring was new, and all the verdant boughs,
 Adorn'd with blossoms, promis'd fruits that vie,
 In glowing colours with the Tyrian dye.

* * * * *

Upon the tree I cast a frightful look,
 The trembling tree with sudden horror shook.
 Lotis the nymph (if rural tales be true,)
 As from Priapus' lawless lust she flew,
 Forsook her form; and fixing, there became
 A flow'ry plant, which still preserves her name.

Theophrastus mentions the lotus fruit in his 4th book, where he says, that it is of the size of a bean, and changes it's colour as it ripens. This author affirms, that the tree is by it's nature everlasting.

Strabo, in his 17th book, informs us, that Syrtis as well as Menynx was said to be Lotophagitis. The compass of the gulph, says this geographer, where the lotus grows, is almost 1600 furlongs; the breadth of the mouth 600: by the capes there are islands near to the main land. It is thought, continues he, that Menynx was the country of the Lotophagi, or those that feed on the lotus-trees, of which country Homer makes mention; and there are certain monuments

seen, and Ulysses's altar, as well as abundance of lote-trees, the fruit of which is exceedingly sweet.

Pliny has furnished us with an account of the lotus-tree, in his 13th book, c. 17. According to this author, the finest trees of this kind grew on two large sand banks on the Mediterranean coast of Africa, not far from Leptis and Carthage. He mentions them as being the size of pear-trees, but states that Nepos Cornelius described them as shrubs. The leaves, says Pliny, are thick, cut, and indented: otherwise they are like those of the ilex or holm-tree. There are many varieties of this fruit, but he describes the generality of them as being the size of a bean, and of the colour of saffron, yet, says he, before it is quite ripe the fruit changes into a variety of colours like grapes. It grows thick among the branches of the tree, in the manner of myrtle-berries, and not, says he, like cherries. This fruit in Africa, continues Pliny, is so sweet and pleasant, that it has given the name both to a nation and country, as the people are called Lotophagi; and so welcome are all strangers there, and so well contented with their entertainment, that they forget their own native soil, for the love they have for this fruit, when once they

have taken to it. By report, (adds this author,) those who eat of it, are free from all diseases of the stomach.

Those lotusès were accounted the best that had no kernels within; for there is a kind, says Pliny, that has a kernel as hard as a bone. From this fruit was pressed a wine similar to mead, which he states, on the authority of Nepos, would not keep above ten days. The Lotophagi pressed the berries of this fruit, with wheat or frumenty, into a paste; and so put it up in great barrels or vessels for food. We have heard, says Pliny, that whole armies passing to and fro through Africa have fed upon it, having no other food.

The wood of the lotus-tree, according to the account of Pliny, was of a black colour, and was, says he, much sought after for making musical pipes. Shafts of daggers and knives, &c. were made of the roots. This author says, "it is growing in Italy, but with the change of soil it has changed it's nature;" but in his 16th book, chap. 30th, he says, "the lotus-tree is planted about the finest houses in the court-yards, because the boughs spread so large. Although the body is short and small, it affords much shade; yet there is not a tree that gives shade for so short a time, as the leaves fall at the approach of

winter, when it admits the sun." The bark is described as of a pleasing hue, and was used to colour skins and leather; the root to dye wool.

"The fruit," says he, "resembles the snouts or muzzles of wild beasts, and many of the smaller berries seem to hang to those that are larger."

The same author, in writing on the age of trees, (book 16th, chap. 24th,) says, "at Rome, in the court-yard belonging to the chapel of the goddess Diana Lucina, there is yet to be seen a lote-tree standing before the chapel, which was built in the year of the Anarchy, when Rome was desolate of all magistrates, which was 369 years after the foundation of the city; but how much more ancient this tree is than the chapel, God knows! for older it is without all question, as from the trees there growing, which the Latins call *Lucus*, the goddess Diana took her name *Lucina*, which was about 450 years back, and doubtless this tree is so old."

"Another lote-tree there is," says he, "still older, but the age of it is likewise uncertain: it is known by the name of *Capitata* (hairy), and so called, because the hair of the vestal virgins' heads is usually brought thither to be consecrated. There is a third

lotus at Rome, in the court-yard and cloister about the temple of Vulcan, which Romulus built for a perpetual monument and memorial of a victory, and defrayed the charge out of the tenth of the pillage and spoil that he obtained from his enemies; and this tree is at least as old as the city of Rome.”

Pliny writes on the medicinal qualities of the lotus, in his 24th book, chap. 2^d, and says his countrymen called it the Greek bean. He says the fruit is sweet, but that nothing is more bitter than the shavings of the wood.

Mr. Mungo Park discovered what is supposed to be the lotus of the ancients, and says it abounds in all parts of the interior of Africa. Agreeable to his account, it is rather a thorny shrub than a tree. The fruit is a small farinaceous berry, which being pounded and dried in the sun, is made into excellent cakes, resembling in flavour and colour the sweetest gingerbread. This traveller observes, that a sweet liquor is obtained from the lotus, which, we may conclude, had the bewitching qualities described by the ancients.

A species of the lotus, or nettles-tree, *celtis*, has long been cultivated in this country: as Gerard says, “this is a rare and strange tree in both the Germanies: it was brought

out of Italy, where there is found store thereof, as Mathiolus testifieth: I have," says he, "a small tree in my garden: there is likewise a tree thereof in the garden vnder London-wall, sometime belonging to M. Gray, an apothecary of London; and another great tree in the garden neere Colman streete, being the garden of the queen's apothecary, called Mr. Hugh Morgan, a curious coseruer of rare simples. The lote-tree doth also grow in Affricke, but it some what differeth from the Italian lote in fruit." Gerard adds, that the fruit ripens in September: the berries, he says, are round, and hang on stalks like cherries, and not like the African lotus. "They are," says he, "of a yellowish white colour at the first, and afterwards red, but when they be ripe they be somewhat blacke."

The lotus-flower, that is now become so fashionable in ornamenting furniture, from the circumstance of it's having been selected as the decoration of the superb Chinese chandeliers made for his Majesty's Pavilion at Brighton, is not the blossom of the lotus-tree, but of the *Nymphæa Nelumbo*, or Chinese water-lotus. This water-lily is called *Nymphæa*, from it's growing in the water, which the poets feign to be the residence of the Nymphs. In China, where it was

always held in such high value, that at length it has become regarded as sacred, it is called *Lien-cha*. *Puzza*, a Chinese divinity, is represented as seated on the flowers of the lotus. The gods of Japan, which are exhibited of a gigantic figure, are also seated on the blossoms of this plant. The ponds in China are generally covered with this beautiful aquatic blossom, which is also grown in large vases in the houses of the Mandarins. The roots and seeds are served up on ice at their breakfasts as a delicacy, mixed with the kernels of fruits.

The Romans made repeated efforts to raise this plant, without success, which the ancients have celebrated in their writings. Homer mentions it with other flowers, as composing the genial bed of Jupiter and Juno; and the lotus-herb is said to have formed the green food of Achilles's horses.

Antiquarians assure us, that they recognise this flower on the head of Harpocrates.

Pliny describes the Egyptian lotus as a plant which grows in the marshes of that country, and which came up in the flats when the waters of the Nile returned to their natural channel. "They have heads," says he, "like those of the poppy, within which are seeds resembling millet, of which the

inhabitants make bread." He relates, that "it is reported that when the sun goes down, those heads close up with leaves, and sink under the water, where they remain shut until the morning, when they appear above the surface and open, continuing this course until they are ripe, when the flowers (that are white) fall off of themselves. This lotus," says he, "has a root as big as a quince, covered with a black rind or bark, much like the husk of a chesnut. The substance within is white, and delicious to eat, particularly boiled in water or roasted in embers. The bread made from the seeds of this lotus," says Pliny, "is worked with water or milk. There is not any bread in the world (says report) more wholesome and lighter than this, so long as it is hot; but once cold, it is hard of digestion, and becomes weighty."

This plant was introduced into this country by the late Sir Joseph Banks, in 1787, and is of the Polyandria Monogynia Class.

It is a perennial herb, and grows in the water, and is distinguished by its large, round, flat leaves, which are covered with a thick, white, downy substance. The flowers are large, and are produced in a terminal panicle. The fruit is a large, round, flat seed, which is covered with a thick, black, rind, and is enclosed in a white, fleshy, and delicious pericarpium. The seed is eaten, and is said to be very nourishing and strengthening.

AN EXPLANATION
OF THE
TECHNICAL TERMS
In Botany,
USED IN THIS WORK.

“THE Sexual System, as invented and given to the world by Linnæus,” says Miller, “is built or founded on the male and female parts of *fructification*. By fructification is meant flower and fruit; and is disposed according to the number, proportion, and situation of the stamens or pistils, or the male and female organs.

“For the sake of brevity of expression, he has had recourse to the Greek language. *Aner*, a husband, he has applied to the stamen; and *Gyne*, a wife, to the pistil. The stamen consists of two parts. The 1st. Filament, is that part which elevates the anthera. 2d. The anthera is the part that bears the pollen, or *ferina fecundans*, that impregnates the pistillum or germen.

“First, the pistillum consists of three parts:—the germen, or embryo, of a future fruit. 2d. The style, which elevates the stigma. 3d. The stigma or summit, which is covered with a moisture, that dissolves the farina fecundans of the anthera; fitting it for vivification.

“The orders are taken from the females or pistils, as the classes are from the males or stamens.”

Androgynous plant.—Bearing male and female flowers on the same root, without any mixture of hermaphrodites.

Anther.—A part of the flower, big with pollen or farina, which it emits or explodes when ripe; or, big with granulated pollen, and that with favilla. It forms a part of the stamen, and is placed on the top of the filament.

Calyx.—The outward covering of the flower, or the first of the seven parts of fructification.

Chive.—Properly the stamen.

Decandria.—Ten stamened.

Diœcia.—The twenty-second class in Linnaeus's system, comprehending those plants which have no hermaphrodite

flowers ; but male and female flowers on distinct plants of the same species.

Favilla.—A fine substance, imperceptible to the naked eye, exploded by the pollen in the anthers of flowers.

Hermaphrodite flowers.—Having both anther and stigma. An hermaphrodite plant is that which has only hermaphrodite flowers.

Hexandria.—The name of the sixth class in Linnæus's system ; comprehending those plants which have hermaphrodite flowers with six equal stamens. This is a natural class.

Icosandria.—The name of the twelfth class in the Linnæan system ; comprehending those plants which have hermaphrodite flowers, with twenty or more stamens, growing on the inside of the calyx, not on the receptacle : the situation, and not the number of the stamens, is here to be attended to. The calyx also is monophyllous and concave in this class ; and the claws of the petals are fixed into the inside of the calyx.

Monœcia.—The name of the twenty-first class in the Linnæan system ; comprehending the androgynous plants, or such as produce male and female flowers on the

same individual, without any mixture of hermaphrodites.

Monogynia.—The name of the first order in each of the thirteen first classes of the Linnæan system; comprehending such plants as have no pistil, or stigma only, in a flower.

Monophyllum.—A monophyllus, or one-leafed perianth. All in one; if cut, not separated to the base.

Octandria.—The name of the eighth class in the Linnæan system; comprehending those plants which have hermaphrodite flowers with eight stamens.

Pentagynia.—Comprehends those plants which have five pistils in a hermaphrodite flower.

Pentandria.—The name of the fifth class in Linnæus's system; comprehending those plants which have hermaphrodite flowers with five stamens.

Pistillum.—Pistil or pointal; a viscus or organ adhering to the fruit, for the reception of the pollen. It is the fourth part of the fructification. It's appearance is that of a column, or set of columns, in the centre of the flower; and when perfect, it consists of three parts,—1st. Ger-

men, germ, or ovary; 2d. Stylus, the style; 3d. Stigma.

Petalum.—A petal: the corollaceous integument of the flower.

Polyandria.—The name of the thirteenth class in the Linnæan system: comprehending those plants which bear hermaphrodite flowers with many stamens (from twenty to a thousand) growing single on the receptacle.

Polyadelphia.—The name of the eighteenth class in the Linnæan system; comprehending those plants which bear hermaphrodite flowers with three or more sets of united stamens.

Polygamia.—The name of the twenty-third class in the Linnæan system; comprehending those plants which bear hermaphrodite flowers, accompanied with male or female flowers, or both; not inclosed within the same common calyx, but scattered either on the same plant, or on two, or on three distinct individuals: whence the three orders of this class,—
1. *Monœcia*, 2. *Diœcia*, 3. *Triœcia*.

Polygynia.—The name of one of the orders in the fifth, sixth, twelfth, and thirteenth classes in the Linnæan system; compre-

comprehending those plants which have flowers with many pistils.

Ribes.—See currant-tree.

Receptaculum.—A receptacle; the base by which the other parts of the fructification are connected.

Stamen.—An organ, or viscus, for the preparation of the pollen; and formed from the wood. It is the third in the fructification, and consists of the filament and anther.

Syngenesia.—The name of the nineteenth class in Linnæus's artificial system; comprehending those plants which have the anthers united into a cylinder.

The following anecdote, as related by Ray, will prove how necessary it is for all classes of men to be in some measure acquainted with botany: the counsellor who would be a judge, the student who would be a pleader, the jurymen who would give an honest verdict, and the defendant who would gain his cause, will, in this instance, see the importance of botanical information.

“Baal, who was a gardener at Brentford, in Middlesex, having cultivated a remarkable fine cabbage, sold a large quantity of the seeds to several gardeners about the

suburbs of London. They committed them to the ground after the usual manner; but instead of the sort Baal had made them believe would spring up, they proved to be chiefly the *brassica longifolia*, instead of the *florida*. His incensed customers, in a body, instantly commenced, in Westminster Hall, a prosecution against him. The unfortunate man being unable to prove his innocence before the judges, the Court found him guilty of fraud; and he was condemned, not only to restore the price given for the seeds, but was likewise obliged to pay each gardener for the loss of time, and for the ground that had been uselessly occupied. His character and circumstances were consequently ruined; which impaired his health, and caused him to pay an untimely debt to nature. Had the judges been at all apprized of the sexual hypothesis, or had this honest man known, from careful observation, the use of the *farina* in rendering the *pistillum* productive, Baal would not have been found guilty of a crime, but the accident would have been attributed to the true cause,—the fortuitous impregnation of the *brassica florida* by the *farina* of the *brassica longifolia* growing in the neighbourhood.”

THE APPLE BLOSSOM



1



2



3



4

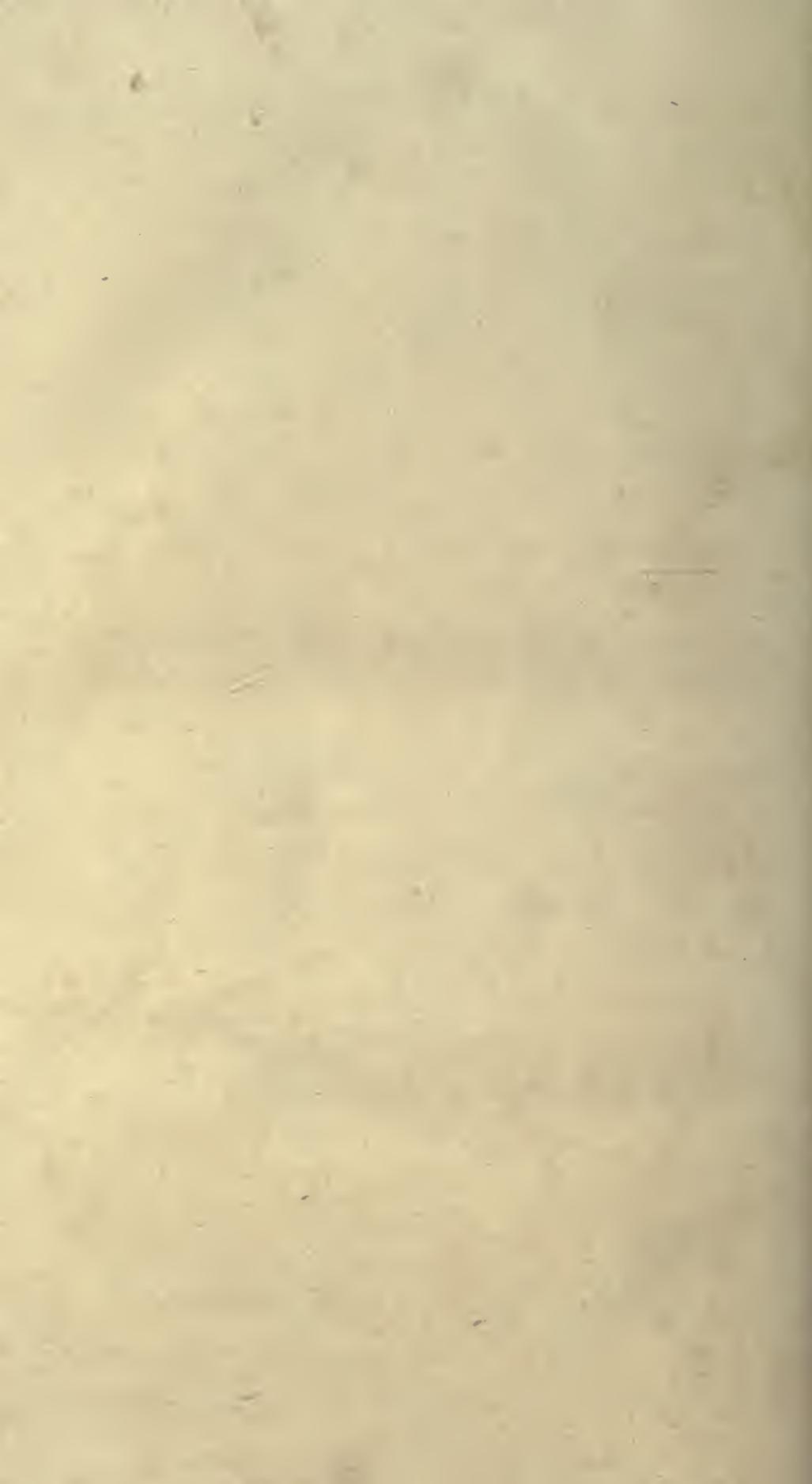


THE STAMEN



THE PISTILLUM

Magnified.





Monandria



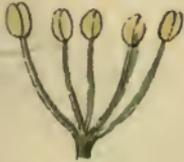
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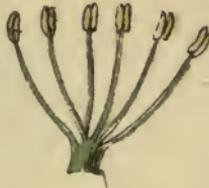
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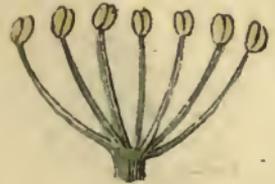
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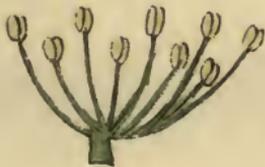
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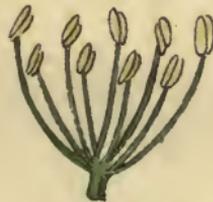
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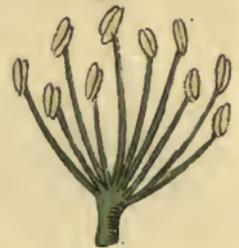
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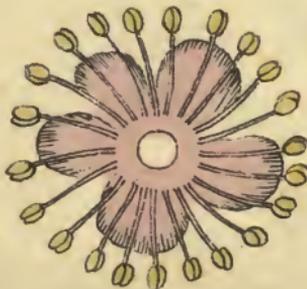
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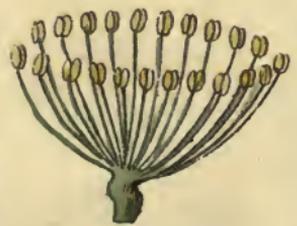
Decandria



Dodecandria



Icosadria



Polyandria



Mono gynia



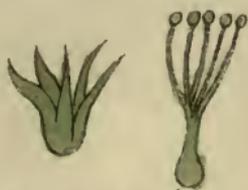
Di gynia



Tri gynia



Tetra gynia



Pentagynia



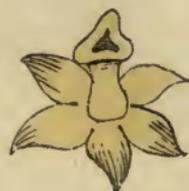
Hexagynia



Heptagynia



Polygynia



Syngenesia



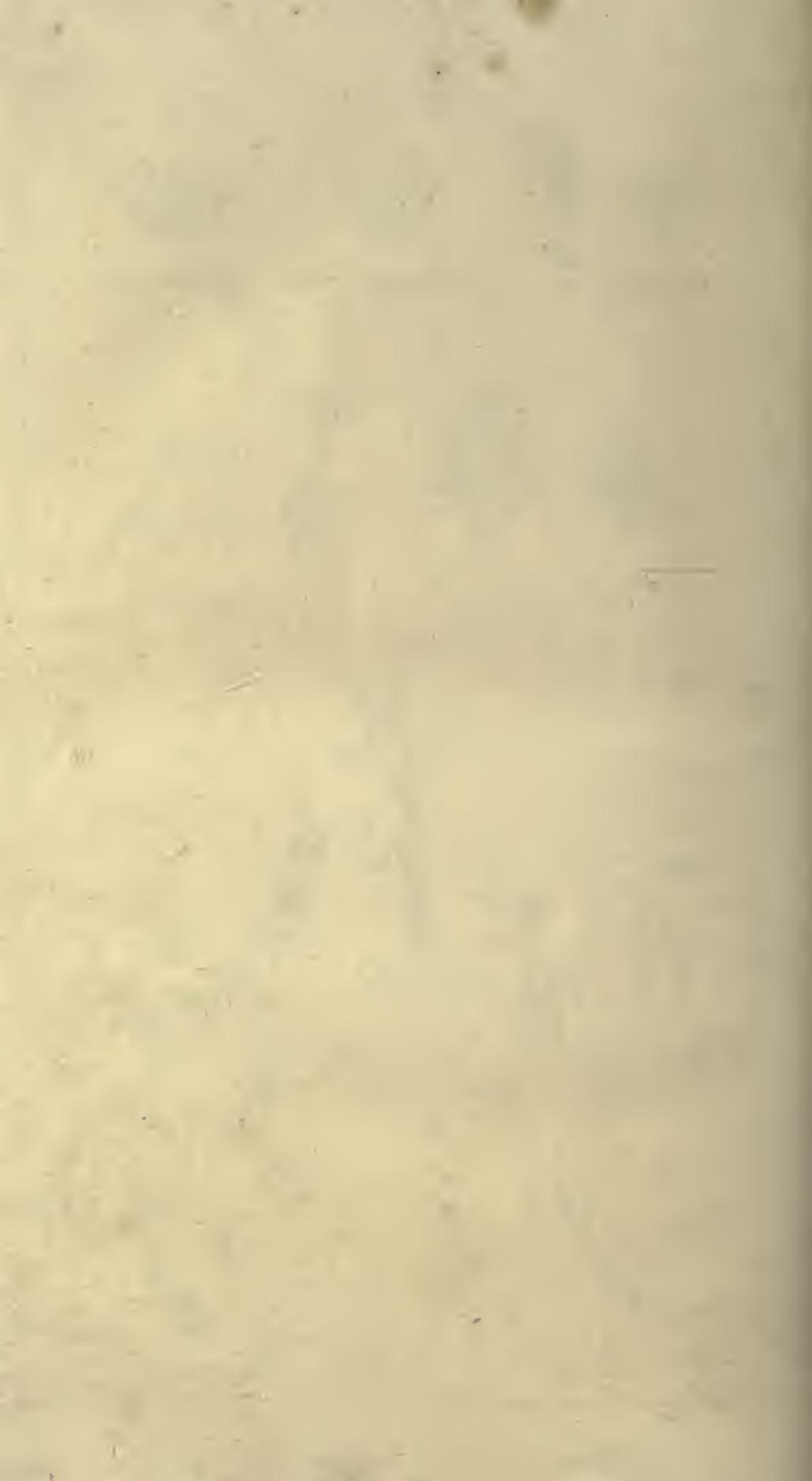
Dioecia



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Introduction

Chapter I

The first part of the book is devoted to a general survey of the subject. It is divided into three sections: the first dealing with the history of the subject, the second with its present state, and the third with its future prospects.

Chapter II

The second part of the book is devoted to a detailed examination of the subject. It is divided into two sections: the first dealing with the theory of the subject, and the second with its practical application.

Chapter III

The third part of the book is devoted to a critical analysis of the subject. It is divided into two sections: the first dealing with the strengths and weaknesses of the subject, and the second with its social and economic implications.

Chapter IV

The fourth part of the book is devoted to a comparative study of the subject. It is divided into two sections: the first dealing with the subject in its own country, and the second with its status in other countries.

Chapter V

The fifth part of the book is devoted to a summary of the subject. It is divided into two sections: the first dealing with the main results of the study, and the second with the conclusions drawn from the study.

Chapter VI

The sixth part of the book is devoted to a bibliography of the subject. It is divided into two sections: the first dealing with the works of the author, and the second with the works of other authors.

Chapter VII

The seventh part of the book is devoted to an index of the subject. It is divided into two sections: the first dealing with the names of the authors, and the second with the names of the subjects.

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