BS
665
G87

By-paths of Bible Knowledge

X.

SCRIPTURE NATURAL HISTORY

I.

THE TREES AND PLANTS MENTIONED IN THE BIBLE

W. H. GROSER, B.Sc.

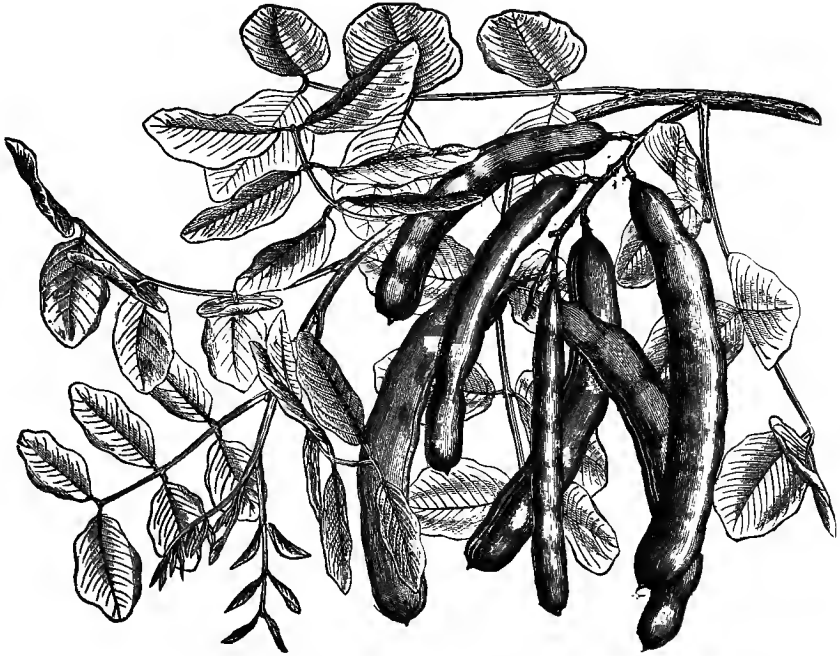

INTER · FOLIA · FRUCTUS
ANDREW DICKSON WHITE

Cornell University Library
BS665 .G87
Trees and plants mentioned in the Bible.
3 1924 029 284 746
olin

The original of this book is in
the Cornell University Library.

There are no known copyright restrictions in
the United States on the use of the text.

http://www.archive.org/details/cu31924029284746



PODS OF THE CAROB TREE.—'THE HUSKS THAT THE SWINE DID EAT.

[*See page* 107.

By-Paths of Bible Knowledge.

X.

SCRIPTURE NATURAL HISTORY.

I.

THE TREES AND PLANTS MENTIONED IN THE BIBLE.

BY

WILLIAM H. GROSER, B.Sc. (LOND.)

Author of 'JOSHUA AND HIS SUCCESSORS,' *etc.*

THE RELIGIOUS TRACT SOCIETY,

56 PATERNOSTER ROW, AND 65 ST. PAUL'S CHURCHYARD.

1888.

A. 8194.

'Syria is well worthy to be the home of civilization, possessing as she does lands fertile even under complete abandonment; fields producing spontaneously cereals for food and silks and cottons for clothing; timber of every description, and of the best quality, from the cedar to the oak, from the plane to the pine, and which may be had for the felling; while sycomores of enormous size spread their branches wide enough to cover a whole caravan with their grateful shade. . . Whatever in the vegetable kingdom is useful or beautiful is here found in the natural unforced produce of the soil, spread out in rich and prodigal abundance.'—FARLEY, *Two Years in Syria.*

CONTENTS.

CHAPTER I.

CHAPTER II.

CHAPTER III.

CHAPTER IV.

CHAPTER V.

CHAPTER VI.

CHAPTER VII.

LIST OF ILLUSTRATIONS.

PALESTINE THORNS.

CHAPTER I.

SKETCH OF THE VEGETATION OF PALESTINE AND THE NEIGHBOURING COUNTRIES.

THE interest surrounding that limited portion of Western Asia which modern writers agree to call by its classical name of PALESTINE, is wholly unparalleled both in nature and degree. The love of the Swiss for their native mountains, or the Scotsman's attachment to the 'land of brown heath and shaggy wood,' affords but a faint type of that glowing and reverent affection with which Christians of every race and nation have constantly regarded their more than Fatherland—the birthplace of their faith and hope. The devotion which once drew pilgrims to its venerable metropolis,—to them the geographical centre of the globe,—established hermits amidst its rocky solitudes, and inspired the grand but reckless fanaticism of Crusaders, finds its modern counterpart in a growing and intelligent interest in all that concerns the Holy Land, its history and topography, its past and present inhabitants, and its vegetable and animal productions. Science has taken the place of superstition; and without the loss of true reverence, sacred sites, long encircled with the delusive halo of legend and romance, are measured and mapped out by the careful hand of the surveyor.

To gain and to preserve a faithful transcript of the material proportions and natural peculiarities of the country; to trace the course of its once-frequented

highways, explore its silent wastes, and disinter from shapeless mounds the scanty and broken relics of former industry and civilization; to enumerate and identify the trees and shrubs which still clothe the hill-sides, the flowers which emblazon the vernal soil, the cattle yet roaming on the upland pastures, and the birds which 'sing,' as of old, 'among the branches';—all this and much more it has been reserved for our own age to attempt, and in large measure to accomplish, in Israel's ancient heritage: a crusade well worthy of the intelligence, and not less worthy of the piety, of the nineteenth century. Every student of Holy Scripture will naturally seek to form mental conceptions of the scenes amidst which its several portions were written, and the chief events which it records were enacted; from which, also, its varied and impressive imagery was derived. And to do this with even approximate accuracy demands some acquaintance with the general features of Oriental vegetation.

It is true that what Von Humboldt aptly termed the 'physiognomy' of any country is based primarily on its geological structure, the character and arrangement of its rock-masses; but the clothing of its stony skeleton, its numberless modifications of external form and colour, are due chiefly to its vegetable life. More than skies or clouds, more than valleys or hills, more than sentient creatures of high or low degree, the trees, shrubs, and flowers of a land give character to its scenery; impressing the mind by their grandeur, or charming it by their beauty.

In a previous volume of the present series[1] the

[1] *Egypt and Syria; their Physical Features in relation to Bible History.* By Sir J. W. Dawson (R. T. S., new and revised edition, 1887).

geological peculiarities of Palestine and the countries which border it have been ably and adequately described. The reader will thus have been made acquainted with those remarkable diversities of elevation by which a territory so small as that of the Hebrews should yet include within itself a climate so strangely varied. If Palestine had been a plain, its climate would have been comprised in the sub-tropical zone extending from lat. 23½° to 34°; but, owing to the inequalities of its surface, no less than *five* out of the eight zones recognized by geographers are represented within its limited area.

On the snow-capped peaks of Lebanon the climate approaches an Arctic severity, while the lower parts of the Ghor, or Jordan valley, experience a tropical heat. Between these extremes of temperature we have the climates of the western coast, the inland plains and lower hills, the higher uplands, and the loftier table-lands beyond Jordan.

Out of this strangely-varied climate springs a corresponding complexity in the animal and vegetable life of the country; and the English traveller is struck with the sight of familiar forms, mingled with exotics which remind him how far he has wandered from the temperate fauna and flora of Northern Europe. Tropical bats, Indian owls, and Ethiopian sun-birds are to be found within the borders of the Holy Land, no less than the robins and skylarks, finches and wrens of colder latitudes. The paper-reeds of Egypt and the palms and acacias of the desert are represented, equally with the oaks, willows, and junipers of Europe.

The *general* aspects of the vegetation of Palestine may be briefly summed up as follows:—The plants

common to the *plain of the coast* and the *southern highlands* are for the most part identical with those found in the other countries bordering the Mediterranean east of the Straits of Gibraltar. Here grow the Aleppo pine, the myrtle and ilex, the grey olive and the green arbutus, the carob or locust tree, the orange and citron; the vine, the fig-tree, and the pomegranate. The bay and the oleaster flourish on the hills, and the streams are overhung by the roseate blossoms of the oleander.

The rest of the table-lands which constitute the greater part of Palestine, both east and west of the Jordan, include a flora of a more widely diffused character, comprising plants of Central Europe and Western Asia, with not a few species growing in our own island. Among them may be mentioned pines and junipers, the terebinth, the almond, apricot and peach, the hawthorn and mountain ash, the ivy and honeysuckle, the walnut and mulberry; oaks, poplars, and willows; the majestic cedars of Lebanon, the melancholy cypress, and the plane-tree with its wide-spreading shade.

The vegetation of the *Jordan Valley*, on the other hand, is of a type most closely allied to that of Northern Africa, with a proportion of Indian, as well as of European, species. Here the date-palm once flourished, though only a few stragglers now remain; here grow the acacia and the *retem* of the desert (the 'shittim' and 'juniper' of Scripture), and many less-known plants, represented in Africa but not on the European continent.

In point of climatal conditions, Palestine is most favourably situated. 'The inhabitants,' says Meyen, 'rejoice in the happiest clime. The warmth of the summer enables tropical plants to grow on the plains; thus, the date-palm and the fig (the edible species and

the sycomore-fig) found a home in Southern Syria, in sheltered spots. The strip of coast tended to diminish the extremes of temperature, and thus palms grew, and still grow, in the maritime plain. Palestine was also able to boast a large number of more northern plants, belonging strictly to the warmer temperate zone, on the edge of which Northern Palestine is situated. Hence it gained many beautiful evergreen trees and shrubs, myrtles, laurels, cistuses, and other important plants of Southern Europe, not to speak of the vine and pomegranate[1].' Humboldt, in his *Aspects of Nature*, enumerates sixteen[2] tribes of plants, whose forms determine natural scenery—so far, of course, as its botanical element is concerned. Of these, fully half are represented in Palestine, viz. the palms, acacias, laurels, myrtles, pines, willows, mallows, and lilies.

From a country thus rich in diversities of climate, elevation, and natural productions, the sacred writers were led to draw their supplies of imagery in the composition of a world-wide volume. This fact has been often dwelt upon; but it has not so frequently been remarked that the resources of the Greek and Latin poets were not dissimilar in kind, though inferior in variety, so far as related to the vegetable forms by which they were surrounded. Hence there is considerable resemblance between the 'botany of the Classics' and the 'botany of the Bible[3].' A country of woods and forests, in the sense in which that might have been affirmed of Great Britain ten centuries ago, Palestine is not now, nor does it seem to have been such within

[1] *Geography of Plants.*
[2] Other writers have increased the number to twenty two.
[3] See Daubeny's *Essay on the Trees and Shrubs of the Ancients* (1865).

the historic period. Its hill-tops were covered with a soil too thin to encourage the growth of large timber-trees. We thus find frequent reference in Scripture to single trees (chiefly in the south) as familiar landmarks, which could hardly occur in a woodland district. Still, there are woods and forests in Western Palestine, and more extensive ones on the table-lands east of the Jordan; and there is every reason for concluding that there was a much larger area so occupied in former days than now. 'As soon,' remarks Professor Schouw, 'as a race rises to agriculture, it becomes hostile to the forests. The trees are in the way of the spade and plough, and the wood gives less booty than the field, the garden, or the vine-yard. The forest, therefore, falls beneath the axe. . . . And thus, under like circumstances, the country in which civilization is oldest possesses the fewest woods. Hence forests are more sparingly met with in the countries of the Mediterranean than northward of the Alps.' It seems probable, therefore, that the clearing process had begun in Palestine long before the Hebrews settled there, and that it has continued to a varying extent since their dispersion.

Mr. Consul Finn[1] has wisely pointed out the need of caution in drawing general conclusions respecting even the *present* amount of woodland in Western Palestine, seeing that very much is inaccessible to travellers who pursue only the normal routes in visiting the country. He also comments on the wholesale destruction of growing timber in the neighbourhood of towns and villages for the purposes of fuel, which goes on with characteristic disregard of consequences by the peasantry, and with equally characteristic indifference

[1] *Byeways in Palestine.*

on the part of the government. There is evidence that the now comparatively bare hills of Judah and Benjamin were diversified by oak-woods at quite a recent period.

Nor must the effects on vegetation of the successive and devastating invasions to which Palestine has been subjected be overlooked in our estimate. The proud boast of the Assyrian monarch that the cedars and fir-trees of Lebanon and the woods of Carmel should fall before the axes of his soldiery is but a sample of the relentless destructiveness of ancient pagan warfare. The Mosaic law mercifully prohibited the felling of any fruit-bearing tree even in an enemy's territory; but both the Egyptians and the Assyrians cut down fruit and timber-trees indiscriminately, as the monumental inscriptions and bas-reliefs amply testify. From Sennacherib to Titus, the enemies of Israel smote the choicest vegetation of the land; and we are reminded by the pathetic words of the latest Jewish historian, how, in the neighbourhood of the doomed city, the trees were everywhere felled for the military engines of the besiegers, and how wood failed to supply crosses in sufficient abundance on which the wretched inhabitants might be nailed in hideous mockery by the Roman legionaries[1]. In the far north, two extensive forest-regions remain; that known as the Belâd Beshârah in Upper Galilee, between the Jordan and the warm Phœnician plain; and, south of the former, a district extending from near Cæsarea to the plain of Buttauf above Acre. This, the *ingens sylva* of Roman writers, adjoins the Carmel ridge, and their united thickets of oak constitute the 'forest of Carmel' just mentioned.

[1] See Deut. xx. 19, 20; Isaiah ix. 10; xiv. 8; xxxvii. 24; Jer. xxii. 7; Josephus, *Wars*, lib. v. c. iii. § 2; c. xi. § 1; lib. vi. c. i. § 1.

The aspect of the two ranges of Libanus and Anti-Libanus is at first bare and rugged, as their geological structure would lead us to anticipate; but beneath these mighty crags of reddish yellow, glowing beneath a sky of intensest blue, lies an oasis of almost unequalled beauty and fruitfulness. Nestling in these secure retreats—the 'rocks' of their 'strength'—dwell Druse and Maronite, a hardy and industrious race, turning to account the splendid natural advantages of their mountain home, and rendering it, in the words of Lamartine, 'an Eden restored.' The slopes are terraced for grain and a variety of fruit-trees; villages lie embosomed in ruddy orchards and groves of mulberry,—the characteristic tree of Lebanon. Oranges, peaches, apricots, plums, cherries and almonds, thrive at different elevations, according to their several ranges of temperature. Here, as almost everywhere else in Palestine, the vine and pomegranate yield their rich produce. In the warmer and more sheltered spots the palm and the olive, the fig and the walnut, find a congenial home; green oaks abound higher up the mountain side, and higher still, the pine, cypress, and juniper crown the successive zones of vegetation with their sombre foliage. On Lebanon, such Northern species as the mountain ash, the box, and the berberry have found a refuge; while humbler plants, like the wild rose, geranium, and honeysuckle, impart an almost English aspect to the scene. And beside the many 'streams from Lebanon,' willows and poplars, the Oriental plane, and the crimson oleander, with a mass of lowlier vegetation, flourish as in Bible days.

In the lofty table-lands beyond Jordan—the southward extension of Anti-Libanus—pine forests clothe the summits of the highest hills; lower down, woods of

evergreen-oak adorn the park-like scenery of ancient Gilead and Bashan; and, mingled with them, the rich foliage of the myrtle, the arbutus, and the carob or locust-tree, varied with the pink and white blossoms of the *retem* bush. 'The traveller who only knows Palestine to the west of the Jordan,' says Mr. Laurence Oliphant, 'can form no idea of the luxuriance of the hill-sides of Gilead, doubly enjoyable by the contrast which they present to the rocky, barren slopes of Galilee and Judea. Here we crossed sparkling rivulets, where the sunlight glinted through the foliage . . . and brakes and glades, seldom disturbed by the foot of man. In places the forest opened, and the scenery resembled that of an English park, the large trees standing singly on the long grass; while at others, where possibly in old days there had been well-cultivated farms, the trees gave way altogether to luxuriant herbage, encircling it as though it were a lake of grass into which their long branches drooped[1].'

The country further to the south, formerly known as the territories of Ammon and Moab, is more sparsely wooded, the terebinth being the predominant tree; but it is equally rich in pastures, as Scripture would lead us to suppose.

In Galilee, besides the oak woods already mentioned, a dense undergrowth of mastic, hawthorn, and spurge-laurel overspreads the hills; there and elsewhere replacing the ancient woods. Thistles and thorny plants abound, with flowers of every hue in the early spring-time. The terebinth is not uncommon, and the vine is extensively cultivated, as in the Lebanon district further to the north.

[1] *The Land of Gilead.*

In the plain of the Buttauf in Lower Galilee, corn, cotton, and almost every species of vegetable grow luxuriantly. Nazareth, a few miles distant, nestling amidst a circlet of some fifteen hills, 'like a rose set round with leaves,' has still its palms and cypresses, its fig-trees and gardens.

Crossing the memorable plain of Esdraelon, the 'battle-field of Palestine' and one of its richest fields of cultivation, we pass into the fertile and well-watered district of Samaria. Captain Conder thus graphically describes the Vale of Shechem, the most luxuriant in the whole land:—'Long rivulets, fed by no less than eighty springs (according to the natives), run down the hill-slopes and murmur in the deep ravines; gardens surround the city walls; figs, walnuts, mulberries, oranges, lemons, olives, pomegranates, vines, plums, and every species of vegetable grow in abundance, and the green foliage and sparkling streams refresh the eye. But as at Damascus, the oasis is set in a desert, and the stony barren mountains contrast strongly with the green orchards below[1].' The hills of Samaria appear to be most favourable for the growth of the olive, and indeed this most characteristic tree of modern Palestine abounds both on the higher and lower grounds, overspreading the former and growing amidst the gardens planted in the valleys.

Mr. Buckingham remarks that, 'while in Judea the hills are mostly as bare as the imagination could paint them, and a few of the narrow valleys only are fertile; in Samaria, the very summits of the eminences are as well clothed as the sides of them. These, with the luxuriant valleys which they enclose, present scenes

[1] *Tent-work in Palestine.*

of unbroken verdure in almost every point of view, which are delightfully varied by the picturesque forms of the hills and vales themselves, enriched by the occasional sight of wood and water, in clusters of olive and other trees, and rills and torrents running among them.'

The difference between these two adjacent districts has been often commented on, not always without exaggeration. But the tame, bare, and desolate aspect of so much of the southern highlands of Palestine, including the environs of Jerusalem, is mainly due to the two causes already adverted to: the destruction of timber—resulting here, as in some parts of France and Italy, in the sweeping away of a once productive soil; and the neglect of the ancient terrace-cultivation. Speaking of the neighbourhood of Bethlehem, Canon Tristram remarks, that 'the hill-sides are clad with dwarf oak, bay, lentisk, and broom.' The sides of the glen where once were the famed Gardens of Solomon, are 'steep, rocky, and torn.' Yet Bethlehem, tenanted by a Christian population, has its oliveyards and vineyards as of old, and the portion of the Gardens now cultivated sends abundance of peaches, apricots, figs, almonds, and pomegranates to the markets of Jerusalem.

A like observation applies to the district still further south. A walk up the Vale of Eshcol, once renowned for its vines, 'revealed to us,' says the writer just quoted, 'what Judah was everywhere else in the days of its prosperity. Bare and stony as are the hill-sides, not an inch of space is lost. Terraces, where the ground is not too rocky, support the soil; ancient vineyards cling to the lower slopes; olive, mulberry, almond, fig, and

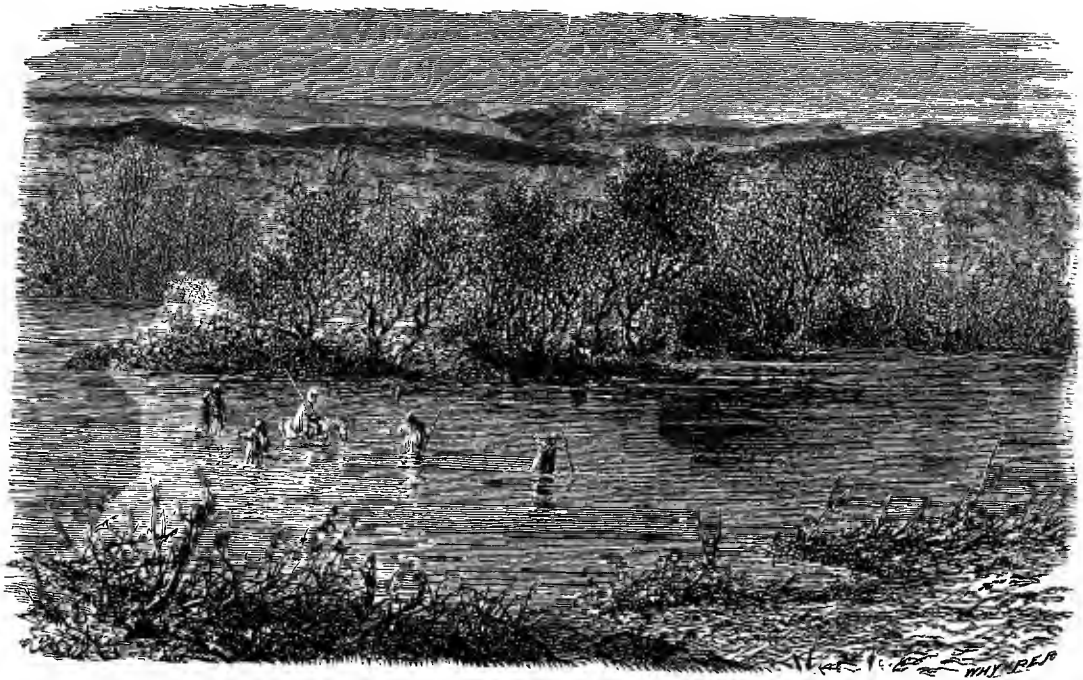
pomegranate trees fill every available cranny to the very crest; while the bottom of the valley is carefully tilled for cress, carrots, and cauliflowers, which will soon give place to melons and cucumbers. That catacomb of perished cities, the "hill country of Judah," is all explained by a walk up the Vale of Eshcol[1].'

The aspects of these Judean hills, as their geological structure would suggest, is not unlike that of our chalk downs, with their rounded summits and scant herbage; but, like them, not destitute of timber in favourable spots. The route southward from Hebron passes over plains of arable land lying between hills clothed with evergreen-oak and arbutus, with pine-trees on the eminences. Here, as elsewhere round the capital, the destruction of trees and shrubs for charcoal-making goes on at an increasing rate.

The district of the Negeb or 'South Country,' into which the hills of Judah gradually melt, is of similar external character. Low hills and rolling downs, carpeted with grass and adorned in early spring with countless flowers, meet the eye of the traveller who ascends into the 'South' from the desert beyond; or, like Abram, 'goes down' from Hebron or Mamre on his way to Egypt. Scarcely any trees are to be found here, except an occasional tamarisk. Springs are infrequent; but tribes of Bedouin nomads find abundant pasturage for their flocks in the territories of the ancient Amalekites. These natural terraces formed the southern border of Israel's inheritance.

The Valley of the Jordan possesses, as already intimated, a flora of its own. The swift-flowing river burrows more and more deeply into its rocky bed

[1] *The Land of Israel.*



A FORD OF THE JORDAN.

throughout its winding course of nearly two hundred miles, from the foot of Hermon to the Dead Sea. The vegetation of the upper part, above the Lake of Galilee, affords a strange mixture of Northern and Southern forms. 'Luxuriant willows,' says Mr. Lowne, 'fringe the stream, whilst dense thickets of tamarisk, buckthorn, Spina Christi thorn, and plane-trees shut out the view for miles, and shelter a tangle of wild roses, brambles, and vines.'

Mr. John Macgregor, whose canoe was probably the first boat that ever navigated the upper part of the river, speaks of the eastern source, near Banias, as being in a grassy and well-wooded region. The spring is surrounded by a thorny and impenetrable thicket, below which the water bursts forth under 'a mass of fig-trees, reeds, and strongest creepers.' He adds, 'A splendid terebinth and a not less splendid oak droop over the infant stream[1].'

The northern portion of Lake Hûleh—the Biblical 'Waters of Merom'—is covered by an immense tract of *floating* thickets of papyrus; and white and yellow water-lilies adorn the more open portions. Thence the river rushes down, 'between rocks thick-set with oleanders.' As it emerges and prepares to enter the Galilean Lake it spreads into a sort of grassy delta, fertile and dotted with trees and bushes. A few palm-trees grow near the lake at this end, and others occur at different points, not far from the shores, on both sides. Josephus alludes to these, and to the fact that walnuts, figs, and olives flourish in this delightful district[2]. Oleanders fringe the sandy beach at Gennesareth, and the grass is

[1] *Rob Roy on the Jordan.*
[2] *Wars*, lib. iii. c. x. § 8.

gay with flowers of every hue, in their brief bright spring-time.

On quitting the Sea of Galilee the downward stream pursues its winding course through a valley of varying breadth. This valley, the *Ghôr* ('hollow') of the Arabs, is the *Arabah* of the Old Testament, usually rendered 'plain,' but left untranslated in Josh. xviii. 18, &c. It presents in some parts *two*, in others *three*, levels or terraces on either side of the river. The course of the Jordan is everywhere marked by a thick jungle of reeds, tamarisks, and oleanders, with islands, here and there, similarly overgrown. Circles of verdure indicate the presence of springs or the debouching of tributary streams from wild and wooded gorges into the main current. Canon Tristram thus describes the winding course of the river between its terraces, as seen from the heights above:—'First, gradually declining from the western hills, and formed principally of their debris, is the upper terrace, on which stand the two great oases of Ain Dûk and Ain Sultân, commencing at a height of 750 feet above the level of the Dead Sea, and sinking at Er Riha [near the site of Jericho] to 500 feet. Hence a somewhat steep slope descends nearly 200 feet to the second plateau. This is now barren, but merely so from neglect, except in the portion nearest the lake, where the soil is impregnated with salt, and covered with efflorescence of sulphur. Thirdly, comes the extent of ground about 100 feet lower still, occasionally overflowed by the river; and, lastly, fringing the stream and very frequently under water, the narrow depressed belt, which is a mere tangle of trees and cane, often only a few yards in width.' Here the date-palm formerly attained its greatest luxuriance. The celebrated palm-grove which gave to

Jericho its ancient title (Deut. xxxiv. 3) is said to have been eight miles in length by three miles broad. Of the district Josephus wrote: 'There are in it many sorts of palm-trees,... different from each other in taste and name; the better sort of them, when pressed, yield an excellent kind of honey .... The country withal produces honey from bees; it also bears that balsam which is the most precious of all the fruits of that place; cypress-trees also, and those[1] that bear myrobalanum .... And indeed, if we speak of these other fruits, it will not be easy to light on any climate on the habitable earth that can well be compared with it.'

With the exception of a few specimens growing near the houses of modern Jericho, no representatives of the palm-forest remain in the neighbourhood. Yet their relics are not difficult to discover in the vast assemblage of tree-trunks which lie heaped at the northern extremity of the Dead Sea, and the half-fossilized palm-leaves to be found in recently-formed limestone at Ain Jidy, the ancient Engedi.

Of the valleys which open towards the Jordan on its western side, two have perennial streams, the Jalûd and the Fârah. The latter runs rapidly through a delightful vale, and is fringed with reeds, oleanders, and aromatic herbs. On the eastern side of the Ghôr are three important rivers, the Yarmûk, the Zerka or Jabbok, and the Modjib or Arnon. There is also the Zerka M'ain, a brook east of the Dead Sea. The gorges through which these streams descend are clothed with the most luxuriant vegetation. Enormous oleanders with their crimson blossoms, and the beautiful white *retem*, with

[1] The *zakkum* tree of the Arabs, or False Balm of Gilead (*Balanites Ægyptiaca*). *Wars*, lib. iv. c. viii. § 3.

terebinths, oaks, and arbutus, make up some of the most picturesque scenery in the land of Israel; while here and there palm-trees rear their graceful crests, and cornfields spread out on the plain below.

One other district claims a brief notice. The Maritime Plain and adjacent hills of the Shephelah, or 'low country,' lying between the Mediterranean and the highlands of Western Palestine, enjoy a climate eminently favourable to vegetation. Warm and sheltered, the palm and tamarisk of the Desert and the Arabah flourish abundantly, with the fig and terebinth, and of course the ubiquitous olive, vine, and pomegranate; oaks, evergreen and deciduous, grow on the slopes, pines on the hill-tops, and abundance of small shrubs and flowers beneath. Waving fields of wheat and barley remind us of the days when Philistia was the granary of Canaan; and the sycomore-fig, too tender for the highlands above, grows abundantly in the 'vale,' as of old, and along the coast. The sites of human settlements, ancient and modern,—Gaza, Jaffa, Ramleh, as well as Acre and Caiffa further north,—are embosomed in orchards and gardens; and the streams which run westward to the Mediterranean are bordered with cane-brakes and adorned with oleanders and willows; in some cases, also, with the slender paper-reeds of Egypt.

Thus, wherever the observant traveller turns his steps within the limits of Israel's former inheritance, he finds a climate and a soil of striking and almost unequalled capabilities, regarded in relation to its very limited area. Yet it is not less obvious that for the full realization of those capabilities, there is needed the aid of constant and persevering industry on the part of its inhabitants. And that this was the case from the earliest times seems

evident from such descriptions as that in Deut. viii. 7–9, where the productions enumerated are those which derive their value from cultivation. It was wisely and beneficently ordained that the natural resources of Palestine should require the healthful exercise of human effort for their full development; and this is still observable in its present degenerate condition, both by what has been lost and by what still remains of scenery and vegetation.

A picture of Western Palestine would lose its most pleasing features if the cultivated trees and shrubs were absent. Throughout the country, from Lebanon to Southern Judea, the olive, the fig, the vine, and the pomegranate, are cultivated in favourable situations, as circumstances permit; though in greatly diminished numbers as compared with Biblical times, when the bare limestone hills, now dotted only with olives almost as grey as themselves, were tapestried with vines rising in terraced festoons, one above another, so abundant and so fruitful as to be a favourite type of the Israelite nation[1]. The pistachia tree and the black and white mulberry are also generally cultivated, and sufficient crops of wheat and barley are still raised to form part of the exports of the country. In what are our winter months, the meadows and pastures are ablaze with flowers of every hue, — ranunculuses, aromatic herbs, and bulbous plants being conspicuous,—but their glory is short-lived; as the solar heat increases, 'the grass withereth, the flower fadeth,' and the spring blossoms are 'cast into the oven,' for fuel, as of old.

Wherever warmth, sheltered position, and moisture

[1] Psalm lxxx. 8. Cruden gives about forty references to the olive and the fig respectively; but more than three times as many to the vine.

prevail, the fertility of the soil speedily becomes apparent. These conditions are attained in the plains which traverse the highlands or border the coast, and in the innumerable valleys which wind among the hills. Besides the twelve important streams which run into the Mediterranean and the Jordan valley respectively, the uplands are intersected by *wadys*, or torrent-beds, which in the rainy seasons form channels for countless brooks. The junction of the limestone strata with the superjacent chalk also gives rise to numerous springs, from which the names of so many Scripture localities derive their prefix *Ain* or *En*. And even where these superficial supplies are wanting, the well and the cistern formerly yielded all that was required, except in seasons of drought; and might easily be made to do so again.

Thus, dowered by nature and enriched by human industry, Palestine was emphatically 'a good land, a land of brooks of water, of fountains and depths that spring out of valleys and hills;' a land whose inhabitants could 'eat bread without scarceness,' and 'not lack anything in it.' It was 'a pleasant portion' and 'a delightsome land' (Deut. viii. 7–9; Jer. xii. 10; Mal. iii. 12). But centuries of misrule and neglect have combined with natural agencies to make desolate this once favoured heritage. The winter rains have swept the thin soil from the hill-sides, the sword of the conqueror and the axe of the peasant have demolished both forest and fruit-tree; many a spring has thus run dry, and many a stream now feeds only a pestilential marsh; the soil 'mourneth and languisheth,' and the ancient prediction is fulfilled by the operation of natural but unerring laws. 'Lebanon is ashamed and hewn down; Sharon is like a wilderness;

and Bashan and Carmel shake off their fruits" (Isaiah xxxiii. 9). Nor with less complete and literal accuracy does the modern botanist confirm the prophetic denunciation — 'Upon the land of My people shall come up thorns and briers; yea, upon all the houses of joy in the joyous city;' 'The thorn and the thistle shall come up on their altars' (Isaiah xxxii. 13; Hosea x. 8).

With the exception of North-western Arabia and the valley of the Nile, the vegetable productions of the countries surrounding Palestine hold but a slight relationship with 'the Botany of the Bible.' The flora of Northern Syria does not differ materially from that of Palestine. The wide plains which stretch far away beyond the table-lands east of Jordan are seldom referred to by the sacred writers, while the plants of the countries still further east, like those of the scenes of apostolic travel, supply but a few references, either in the Old or New Testament.

The vegetation of the peninsula of Sinai, however, and that of Egypt, cannot fail to be of interest to Bible readers.

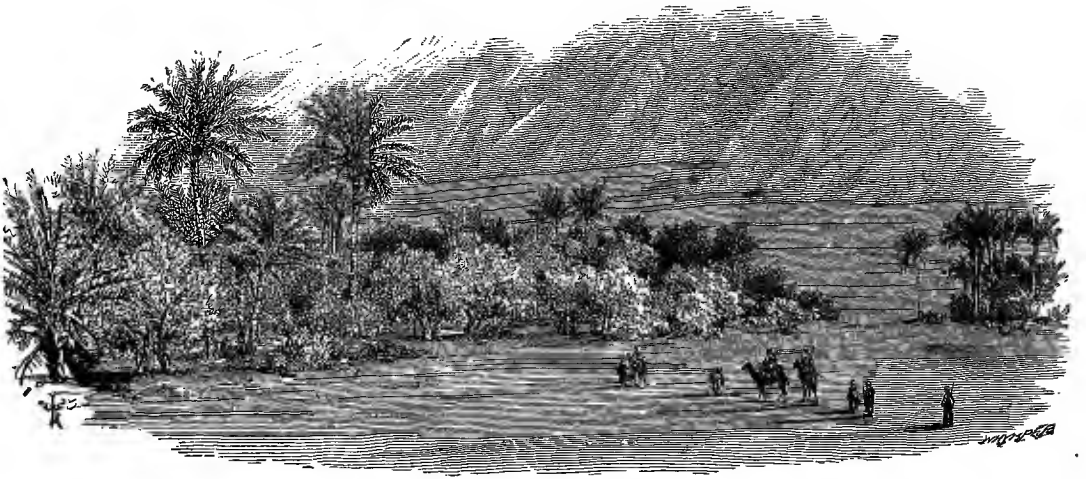
The phrase 'general vegetation' is somewhat of a misnomer as applied to the former territory; the presence of plants which give character to a landscape being the exception, and not the rule. The air, though pure and exhilarating, is extremely dry; and the rainfall being very limited, springs and streams are rare, except in certain localities, such as the granite district round Mount Sinai. But wherever moisture is found, oases occur green with pastures, and glens and wadies, where the maidenhair-fern overhangs the sheltered pools with its fairy fronds, and lavender, mint, and thyme exhale

their fragrance amidst the mosses and sedges by the water-side.

The characteristic trees of the peninsula are the date-palm, the acacia, and the tamarisk. Beside these there are the wild fig and wild palm, a willow, the carob or locust-tree, and the *retem* or white broom; beside the fruit-trees common in Palestine, but these, for the most part, have probably been introduced into the peninsula by human agency.

Of the above, the acacia and tamarisk are the most frequent. Palms abound in the oases; the caper and other small plants spring here and there out of rock crevices; but neither trees, shrubs, nor flowers are sufficiently numerous to affect the general features of this 'dry and thirsty land.' The hardy camel contrives to extract satisfaction and nourishment from the dryest and most prickly growths of the wilderness; but the zoology and botany of this territory are alike of the most limited character. 'In lighting upon a tree or a well you seem to be meeting with a friend. It is an event which deserves record.'

Dr. Bonar (just quoted) describes, in a few forcible sentences, the essential diversity of the aspects of vegetation in Sinai and Palestine. Speaking of the Wady Feirân (generally, but as he thinks incorrectly, identified with Rephidim), the Doctor remarks: 'The whole valley is well watered, as its verdure shows; not the verdure of *grass*, as with us (you do not see that in the desert, save round a well or a rill), scantily either in Egypt or Palestine, nor the verdure of forest trees; ... but the verdure of palms and tamarisks, such vegetation as is sufficient to feed the Arab and his camel.' He adds: 'I did not see anything in the desert that I could call even



THE WADY FEIRÂN.

a thin *clothing* of vegetation; even where the shrubs abound in the wadys there is no show of what we should call "green." Vegetation is so dull in its hue that it does not look like verdure [1].'

The reader will, however, have observed that the scanty flora of the desert, so far as it extends, corresponds in a considerable degree with that of the Lower Jordan valley, and particularly of the district adjoining the Dead Sea [2].

The *indigenous* flora of Egypt, the Egypt of the Bible, differs but little from that of the Sinaitic peninsula and the Lower Ghor. The cultivated plants, however, were very numerous, if we may judge from the list given by Pliny, illustrating the high civilization which so long prevailed in the valley of the Nile. But there is no variety in the vegetation, the physical structure of the country—an alluvial plain of very varying width, bordered by two ranges of limestone hills—rendering it a striking contrast to Palestine. 'For the land, whither thou goest in to possess it, *is not as the land of Egypt*, . . . where thou sowedst thy seed, and wateredst it with thy foot, *as a garden of herbs*: but . . . is a land of hills and valleys, and drinketh water of the rain of heaven' (Deut. xi. 10, 11). Dean Stanley has graphically pictured, in a few words, the aspect of this 'oasis of the primitive world': 'Immediately above the brown and blue waters of the broad, calm, lake-like river, rises a thick black bank of clod or mud, mostly in terraces. Green—unutterably green—mostly at the top of these banks,

[1] *Desert of Sinai.*

[2] An Ordnance survey of Sinai, under the direction of Major Palmer and Captain (now Colonel) Wilson, was successfully carried out in 1868–9, and the results of the investigations were published by government authority in five large volumes of letter-press, maps, and photographic illustrations; and subsequently epitomized in a useful handbook by Major Palmer.

though sometimes creeping down to the water's edge, lies the Land of Egypt. Green—unbroken, save by the mud villages, which here and there lie in the midst of the verdure, like the marks of a soiled foot on a rich carpet; or by the dyke, and channels which convey the life-giving waters through the thirsty land[1].' It is as difficult to conceive of this narrow strip of verdant soil as the garden and granary of the ancient world, as to think of 'the basest of kingdoms' as having once swayed the destinies of our race; to the Hebrew patriarchs an asylum in famine, to their children 'a house of' bitter 'bondage,' to their later descendants a perilous and deceitful ally. But here, as in Palestine, the changed 'aspects of nature' are due, not to earth or sky or air, but to the influence of man. In the opinion of Sir Gardner Wilkinson, 'Egypt, if well cultivated, could now maintain many more inhabitants than at any former period, owing to the increased extent of the irrigated land.'

Fewer timber-trees are now reared in Egypt than formerly, as in Palestine, and for a like reason; the ancient inhabitants delighting in horticulture, and importing exotic trees, shrubs, and flowers, to adorn their groves and gardens. Most of the native plants are still represented, though in diminished numbers. But while the papyrus has disappeared from Lower Egypt the date-palm, there is some reason for thinking, is now cultivated to a greater extent than formerly. In and around the towns and villages it forms the most conspicuous and the most graceful object. Groves of palm, acacia, and tamarisk were, and still are, among the natural beauties of the Nile valley, and the sycomore-

[1] *Sinai and Palestine.*

fig was once abundant there as in Palestine. The doum-palm with its branched stem and fan-like leaves is very common in Upper Egypt, adorning the fields and shading the sun-burnt soil; and in some places forming 'little woods which enchant the sight.' The acacia, also, 'grows commonly on the parched and barren plains' which are so numerous in the Thebaid. The vine, fig, olive, and pomegranate were diligently cultivated by the ancient inhabitants, together with a profusion of vegetables, melons and pumpkins among the chief, such as tempted the 'desert-wearied tribes' to return to the land of their captivity. Of the 'corn in Egypt' no Bible reader needs to be reminded, wheat and barley being grown in every part of the country; and large crops of flax, lentils, peas, and beans were raised without difficulty from the rich alluvial soil.

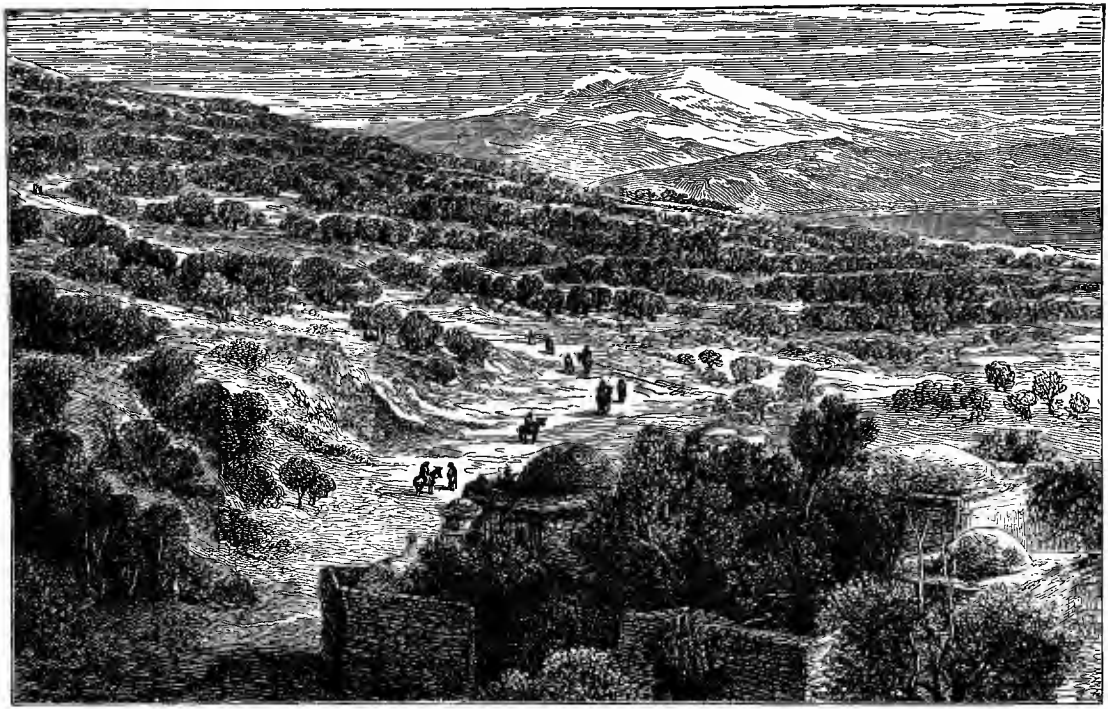
Such is a brief, and confessedly very imperfect, sketch of the general aspects of vegetation in Palestine and the surrounding countries. It seemed, however, needful to attempt to give an outline of the picture, as a whole, before proceeding to deal with the several elements of which it is composed.

CHAPTER II.

TIMBER AND FOREST TREES AND SHRUBS.

THE purpose of the present and succeeding chapters is to describe and illustrate the Botany of *the Bible*, not to enumerate the entire vegetable productions of Palestine and the neighbouring territories. The subject under consideration is thus limited to some six score species of plants, instead of several thousands. It has therefore been deemed expedient to consult the convenience of ordinary readers by adopting a scientific *basis* rather than a scientific *arrangement*, viewing each tree, or herb, or flower from a Biblical rather than a botanical standpoint, while endeavouring to keep constantly in mind the results of Oriental travel and scientific research.

It is scarcely necessary to remark that the identification of some few of the plants mentioned in Scripture remains, notwithstanding the labours of philologists and scientific travellers, a matter of uncertainty. No one can determine, for example, what precise production is meant by the 'Vine of Sodom,' or what the 'Almug trees' were which Solomon imported into Palestine. But, beyond such doubtful cases, it should be clearly understood at the outset that even when a tree, or shrub, or flower has been identified, it by no means follows that the Hebrew or Greek name is precisely *equivalent* to the botanical one. The *area*, so to speak, of the former may be greater or less than that of the latter; mostly *greater*, but



THE HILLS NEAR GENNESARETH.

occasionally *less*;—that is to say, the original Scripture term often includes several species now considered distinct, and even different genera. For example, the word translated 'fir' (and sometimes 'cypress' and 'juniper') in our English version probably includes at least *three* species of the genus *Pinus*, now found in Palestine; viz. the stone pine (*P. pinea*), the Aleppo pine (*P. Halepensis*), and the coast pine (*P. maritima*). On the other hand, *four* Hebrew words are used to denote the oaks of Palestine, of which there are some six or seven species, beside varieties; but the respective names cannot be allotted with greater precision than this.

The tendency of scientific classification being to mark distinctions, and denote them by new and appropriate terms, it necessarily happens that *popular* names of plants and animals are as a rule of much wider application than *technical* ones. It is so in our own language, where such terms as 'rose,' 'lily,' 'apple,' &c., are applied to widely different kinds of plants. But it will sometimes happen, where a species is very common or very conspicuous, that the scientific name is represented by several popular ones. This is the case with a few of the animals of Palestine; the Hebrew having *five* names for the lion and *four* for the he-goat, whereas zoology has but one for each.

It is natural to conclude that the Israelites after taking possession of the conquered territory would attach definite names to such members of its fauna and flora as were new to them; and in that unscientific, or rather *pre*-scientific, age would be governed by the outward characteristics of each animal or plant. Thus the popular names of organized beings are commonly descriptive, and usually faithful to their external cha-

racteristics. It is also observable that the comparative frequency of Biblical allusions to this or that member of the vegetable or animal kingdom affords a rough but by no means untrustworthy measure of its relative numbers or importance. The careful student of Scripture would need no actual survey or authoritative statement to convince him that the olive, the fig, the vine, and the pomegranate were the most common fruit-trees of Palestine in ancient days.

Before attempting to specify the particular trees and shrubs alluded to by the sacred writers, it may be well to notice some few general terms employed by them to denote aggregations of vegetable growth as an element in Eastern scenery. Here, as in so many individual cases, the finer shades of meaning as well as the picturesqueness of description observable in the Hebrew names are too often lost or obscured in our Authorized Version by a want of uniformity in the renderings. The late Dean Stanley sought to remedy this defect in the valuable and now well-known Appendix of Natural Terms, subjoined to his *Sinai and Palestine*; and the Company of Revisers have since successfully endeavoured to introduce into the English translation a more uniform correspondence with the original text.

In the Authorized Version four principal terms are employed to denote collective vegetation, as follows:—

1. Forest (Heb. יַעַר *yaar*).
2. Wood (Heb. יַעַר *yaar*, חֹרֶשׁ *choresh*).
3. Grove (Heb. אֲשֵׁרָה *asherah*, אֶשֶׁל *eshel*).
4. Thicket (Heb. סְבָךְ *sebak*, סֹבֶךְ *sobek*).

1. The first, יַעַר (*yaar*), is applied to any considerable assemblage of trees, whether timber or fruit-bearing, and irrespective of dimensions. Thus it is used to

denote the cedars of Lebanon (1 Kings vii. 2, &c.), the oaks of Carmel (Isaiah xxxvii. 24), and the fruit-trees of an orchard (Eccles. ii. 6; Song of Solomon ii. 3). All the great forests of ancient Palestine were so entitled, and the Revisers have preserved uniformity in the corresponding English word, whereas the Authorized Version renders it indifferently 'wood' and 'forest.' It appears in the proper name Kirjath-*jearim* (city of forests).

2. The second term, חֹרֶשׁ (*choresh*), includes not only what we understand by a 'wood,' as inferior in extent and importance to a 'forest,' but also what in other countries than Palestine would be called 'underwood,' 'scrub,' or 'jungle,' and of which the present condition of the once-favoured land affords abundant examples, especially on the Carmel range, and on the western slopes of the central highlands. Doubtless what is now *choresh* was represented in the palmy days of Canaanite and Hebrew history by vineyards and olive-groves, which will account for the infrequent occurrence of the word in the Old Testament. In Isaiah xvii. 9 it is incorrectly translated 'bough' in the Authorized Version, and in Ezek. xxxi. 3 (poetically) 'shroud,' i.e. of foliage.

3. The English word 'grove,' so frequent in the Authorized Version as applied to idolatrous rites, has almost disappeared from the revised text. This is due to the fact that, in almost every instance, the original term is אֲשֵׁרָה (*asherah*, plural *asherim* or *asheroth*), upon the precise signification of which much learning and ingenuity have been expended; but which is now generally understood to denote the symbolic 'pillars,' 'obelisks,' 'poles,' or 'masts' (as they have been variously termed) erected in places set apart for the worship of the

Phœnician goddess Ashtoreth. Such rites were no doubt frequently marked by groups of trees; but 'groves' in the ordinary sense the *asherim* certainly were not. In the Revised Version the word is wisely left untranslated.

We read in Genesis xxi. 33 that 'Abraham planted a "grove" in Beersheba;' but the original word is here אֵשֶׁל (*eshel*), not אֲשֵׁרָה (*asherah*). Modern interpreters translate *eshel* by 'a tamarisk,' which in itself is probable enough, as five species of this graceful tree are found in and around Palestine; and it is one of the few kinds native to the southern desert. But in 1 Sam. xxii. 6 and xxxi. 13 the same word is rendered 'a tree,' while in the parallel passage to the latter reference—1 Chron. x. 12—this same tree is called in the Authorized Version 'the oak,' and in the margin of the Revised Version, more precisely, 'the terebinth,' אֵלָה (*elah*). From a comparison of these passages it would seem safe to translate *eshel* simply 'a tree,' which in Abraham's case was probably a tamarisk, but in that of Saul a tree of more conspicuous growth and more spreading foliage. Under an oak or a terebinth he may have encamped, and under a similarly well-known landmark the bones of the ill-fated king and his sons may have found a final resting-place.

4. The rendering of the Hebrew words סְבָךְ (*sebak*) and סֹבֶךְ (*sobek*) by the familiar term 'thicket' is sufficiently accurate and expressive, denoting as they do the 'thicker' portions of vegetation, whether of trees or bushes. Examples, Gen. xxii. 13; Isaiah ix. 18; Jer. iv. 7.

In numerous passages of the Old and New Testaments mention is made collectively of 'thorns' and 'briers,' often in connexion with 'thistles' or 'nettles.' The vast

abundance of shrubs and low plants of a spinous growth in modern Palestine is attested by every traveller, and is especially noticeable in the drier parts of that country. Abandoned, as so much of the territory of Israel has been for ages, to the unchecked operation of natural agencies, the prevalence of plants useless or noxious to man need excite no surprise, while it is in strict accordance with ancient predictions. But the prevalence of spinous plants was not confined to modern times, as may be proved by a reference to a Hebrew concordance, from which we learn that these troublesome forms of vegetation are denoted by more than a dozen different words. Rabbinical writers make the number twenty-two; but the lower estimate amply proves the variety and abundance of the things so signified. 'The land shall become briers and thorns' is a threat repeatedly uttered by Old Testament prophets, as a penalty for disobedience; and that which has now become so general in Palestine was doubtless fulfilled temporarily and on a more limited scale long before the downfall of the Hebrew commonwealth.

The fact furnishes only another illustration of the point already insisted on, that the Land of Promise was one whose excellences peculiarly needed the co-operation of human industry to render them blessings. In the absence of the ploughman and the sower, the very fertility of the soil, uniting with the dryness of the atmosphere and the often extreme heat of the sun, produced a condition highly favourable to the multiplication of spinous growths. Every student of botany knows that a thorn is an undeveloped branch, which under cultivation may be made to put forth leaves and bear blossoms and fruit. Unfavourable conditions arrest growth, and what would

have been a verdant bough becomes simply a mischievous thorn. And in Palestine a number of plant-genera are represented whose habit is thorny in a remarkable degree. The Jewish husbandman was therefore surrounded by ambushed foes, numerous and formidable as Midianite or Philistine, and as ready to take possession of his fields and orchards, if the watchful eye and ready hand were wanting[1]. The garden of the slothful man described in the Proverbs (xxiv. 31) was but the same phenomenon in miniature as that produced from time to time by desolating wars and diminished population, when not only 'the beasts of the field' (Exod. xxiii. 29) but even the weeds found opportunities to 'multiply against' the inhabitants. When peace and prosperity restored the balance of power to man, the thorny undergrowth around his settlements furnished a useful fuel for the preparation of his food (Psalm lviii. 9; Eccles. vii. 6).

It is perhaps scarcely needful to add that, in the multitude of possible meanings, the original words cannot generally be affixed with certainty to any particular species, or even to any genus, of spinous plant; indeed, it is not probable that, in the majority of cases, any specific reference was implied in the Hebrew or Greek nouns used by the sacred writers, any more than by our corresponding English ones. Even the word used in the Gospels to denote the material of which the thorny crown of the Saviour was composed is of general significance, and has left room for innumerable conjectures. The *Zizyphus spina Christi*, notwithstanding its botanical name, has no claim to be considered as other

[1] The following genera, remarkable for spinous growths, are conspicuously represented in Palestine—*Astragalus*, *Fagonia*, *Ononis*, *Poterium*, *Zizyphus*, with many others. (See under BRAMBLE and THISTLE in Chapter V.)

than a plant of the desert and valleys. The 'Christ's thorn,' popularly so called,—the *Paliurus aculeatus* of botanists,—fulfils all the required conditions; having both branches and leaves studded with thorns, being flexible enough to be easily 'plaited' into a crown, and being also 'common on all the rocky hills' of the country. The Arabs call it *samûr*, which seems to correspond with the Hebrew שָׁמִיר *shamir*, the 'brier' of the prophecy of Isaiah (v. 6; vii. 23, &c.).

ALGUM (OR ALMUG) TREES (Heb. אַלְגּוּמִּים, אַלְמֻגִּים).

'The navy also of Hiram, that brought gold from Ophir, brought in from Ophir great plenty of *almug trees* and precious stones. And the king made of the *almug trees* pillars for the house of the Lord, and for the king's house, harps also and psalteries for singers: there came no such *almug trees*, nor were seen unto this day.'—1 Kings x. 11, 12.

'Send me also cedar trees, fir trees, and *algum trees*, out of Lebanon.'—2 Chron. ii. 8.

'And the king made of the *algum trees* terraces to the house of the Lord . . . there were none such seen before in the land of Judah.'—Ch. ix. 11.

The above-quoted verses from the Old Testament comprise all that is authoritatively known concerning the ALGUM or ALMUG TREE, the wood of which was employed by the Wise King of Israel for such important purposes; and thus the first timber-tree which in alphabetical order claims our notice exemplifies the difficulties of ancient and Oriental botany. Enough, however, is stated to indicate a valuable wood of varied capabilities, growing somewhere in the Lebanon district within the dominions of the Tyrian monarch, yet evidently indigenous to some other country where it grew to a size and excellence unattained in Syria. There is no need to suppose, with Rosenmüller, that the writer of the Book of Chronicles was in error in affirming that Solomon asked for Algum trees from Lebanon. Hiram, like his Jewish contemporary,

like Nebuchadnezzar and other Eastern kings, may have formed plantations of foreign trees, and may have so far succeeded as to make the *algummim* (אַלְגֻּמִּים) available for economic use, though inferior to those grown on their native soil. No experiments, Evelyn remarks, 'are more kingly than that of planting for posterity.'

What that native soil was must remain a matter of some uncertainty, the more so as the situation of Ophir cannot be determined. Professor Max Müller has observed that the name of this tree, like those translated in 1 Kings x. 22, 'ivory,' 'apes,' and 'peacocks,' is of foreign origin; and he identifies the word with the Sanskrit *valguka*, which denotes the red sandal-wood of commerce, *Pterocarpus santalinus* of botanists. This tree is of the leguminous or pod-bearing order, and inhabits the Coromandel Coast and Ceylon, where it grows to the size of a walnut tree. The wood is heavy, of a black colour externally, but red inside. In the East it is employed in the manufacture of idols, and for musical instruments, examples of which may be seen in the Indian Museum at South Kensington. In Europe it is chiefly used for the purposes of the dyer and colour-maker. Allied species of *Pterocarpus* yield the products known as dragon's blood and gum kino.

Solomon's artificers appear to have fashioned the Algum wood into columns, or, more probably, stairs or balustrades, for the temple and palace; and into harps, of two or more kinds, for the service of the sanctuary.

Ash (Heb. אֹרֶן *oren*).

'He planteth an *ash* (R. V. fir tree), and the rain doth nourish it.'—Isaiah xliv. 14.

The word rendered as above, in the Authorized and Revised Versions respectively, occurs only in the passage

quoted. The Septuagint and oldest Latin Version translate it 'PINE,' and one of these conifers suits the context very well. Of the four species growing in Palestine, the Aleppo pine (*Pinus Halepensis*) is cultivated on the coast as a barrier against the drifting sands; the pinaster (*P. pinaster*) is grown near Beirût; the larger kinds of juniper (represented by seven species in Palestine) would also be reckoned among 'pines;' and *J. thurifera* may be the 'large cedar' mentioned by Pliny as growing in Phœnicia and furnishing '*images* of the gods [1].' Virgil speaks of the beauty of the pine when planted in gardens, and advises the Roman bee-master to cultivate this tree round his hives, supplying 'friendly showers' with his own hand [2]. We may safely conclude that one or more of the pine tribe above mentioned was in the mind of the prophet in his contemptuous portraiture of the idolaters of his day. (See FIR.)

BAY TREE (Heb. אֶזְרָח *ezrach*).

'I have seen the wicked in great power, and spreading himself like a green *bay tree*' (R. V. a green tree in its native soil).—Psalm xxxvii. 35.

Although the BAY LAUREL (*Laurus nobilis*) is found in the Holy Land, on the Carmel range, on Tabor, and on the hills of Gilead east of Jordan, it seems tolerably certain that David's simile has been correctly interpreted by the Revisers, as having a more general reference; the Hebrew word meaning simply 'native born.' If the Psalmist had designed to mention any particular tree he would probably have chosen the stately cedar, as Ezekiel afterwards did with a similar object (ch. xxxi), and not the comparatively humble though fragrant evergreen.

[1] *Nat. Hist.* lib. xiii. c. 11.
[2] *Eclog.* vii. 65; *Georg.* iv. 112, 141.

To him (unlike the classic poets) the laurel would suggest neither sacred nor poetic associations. We cannot therefore admit the tree of Phœbus among Bible plants even on the plea quaintly urged by the author of the *Religio Medici*, who was 'unwilling to exclude' the bay 'from the honour of having its name in Scripture.'

Box (Heb. תְּאַשּׁוּר *teashshur*).

'The glory of Lebanon shall come unto thee, the fir tree, the pine tree, and the *box* together.'—Isaiah lx. 13.

Although mentioned but twice, or at most thrice, in Scripture, there appears sufficient grounds for accepting the rendering of our English Version in the case of the familiar BOX-TREE (*Buxus sempervirens*). Though not among the giants of the forest, it has a very wide range of distribution from Western Europe to China and Persia, flourishing in the Levant, and under favourable conditions attaining a height of thirty feet. It is fond of a cretaceous soil, and grows luxuriantly on Boxhill, Surrey, and in other special localities in Bucks, Gloucestershire, and Kent. We are not surprised therefore to find it on the chalk of Lebanon in the present day, as in the time of the prophet Isaiah. When well-developed, the box is by no means devoid of external grace; it is accordingly promised in the passage above cited 'to beautify' the restored 'sanctuary' in Messianic days. The Persian poets also compare a beautiful woman to a box-tree; Virgil speaks with admiration of the 'waving box-groves of Cytorus[1];' and Ovid alludes to its continual verdancy[2]. The wood of the box is fine and durable, and its employment in modern wood-engraving is too well known to need description. The Roman poets allude

[1] *Georg.* lib. ii. 437.

[2] *Met.* lib. x. 97.

to its uses in turning and inlaying, and for making flutes; but apparently the Tyrians had long before constructed the benches of their galleys of box and inlaid them with ivory. Such at least seems to be the preferable rendering of Ezek. xxvii. 6, 'They have made thy benches of ivory inlaid in boxwood' (R. V.).

The box-tree is the subject of another prophetic promise in Isaiah xli. 19, where it is said, 'I will set in *the desert* [i. e. the *Arabah*, or dry southern part of the Jordan valley) the fir tree, the pine, and the box tree together.' (See under FIR, &c.)

CEDAR (Heb. אֶרֶז *erez*).

'The trees of the Lord are full of sap; the *cedars of Lebanon*, which He hath planted.'—Psalm civ. 16.

The extensive and important tribe to which the pines, cedars, cypresses, junipers, firs, larches, and other well-known woodland trees belong, is represented in Palestine by seven species of juniper, four of pine, the common cypress, and—grandest of all the forms of vegetation known to the Hebrews—the CEDAR OF LEBANON.

This order (the *Coniferæ*, or cone-bearers of botanists) is extensively diffused through the old and new worlds, and though not remarkable for the number of its contained species, covers districts of vast extent in the northern temperate zone. It includes the giants of the vegetable kingdom—the pines of Norfolk Island and of the Rocky Mountains, and the still loftier *Sequoias* of the Yosemite Valley, California; while several coniferous genera are remarkable for their longevity, such as the pine, cypress, and yew. Of the last-named, there are individual trees in our own country whose age is computed at from 2000 to 3000 years.

Coniferous trees invariably give character to the scenery amidst which they grow. The lofty tapering trunk, the gradations of tint in the needle-like evergreen foliage, and in some kinds the horizontal spread of the crown of leaves, give an aspect of stately and solemn grandeur to groves and forests of cone-bearing trees; and we cease to wonder at the association of yews and cypresses with the quiet resting-places of the dead.

Of all this interesting tribe none possesses an historical celebrity comparable to that of the Cedar of Lebanon (*Cedrus Libani*). It is the chief representative of the cedars of Western Asia, though a variety with smaller leaves has been discovered in the island of Cyprus. The Atlantic Cedar (*C. Atlantica*) is a native of Algeria and Morocco; while in the Far East grows the deodar (*C. Deodara*), the well-known cedar of the Himalayas, regarded by some botanists as a variety of *C. Libani.*

The range of the true Cedar of Lebanon, though not (as was once supposed) restricted to the particular locality resorted to by a long succession of ancient and modern travellers, finds its chief habitat in the ranges of Taurus and Lebanon; the latter being its southernmost limit. Shorn, as it doubtless is, of much of its pristine glory, 'the forest of Lebanon' still numbers between four and five hundred trees; the trunk of the largest specimen being 47 feet in circumference, and its height from 90 to 100 feet. The physiognomy of this noble tree is familiar to English eyes from its frequent occurrence in groves, gardens, and plantations. A tradition ascribes to Queen Elizabeth the planting of a cedar at Hendon Place, in Middlesex, where it seems that a tree of that species was destroyed by a hurricane in 1779. But, at any rate, Cedars of Lebanon were introduced into this country

before the close of the seventeenth century, since which time they have become naturalized, ripening their cones readily in our uncertain climate, though not attaining to the stature of their Syrian congeners.

Almost every traveller in Northern Palestine has recorded his impressions of the principal grove of cedars now remaining near Kadisha; and these descriptions would fill a volume. A quotation may, however, be fitly given from the glowing pages of Lamartine, and from the more scientific observations of the Rev. Canon Tristram.

'At some distance on the left,' wrote M. de Lamartine in 1833, 'in a kind of semicircular hollow formed by the last curves of Lebanon, we observed a large black spot upon the snow,—which was the celebrated clump of cedars. They crown, like a diadem, the brow of the mountain; they overlook all the numberless spacious villages that slope away beneath them; the sea and the sky blend in their horizon.

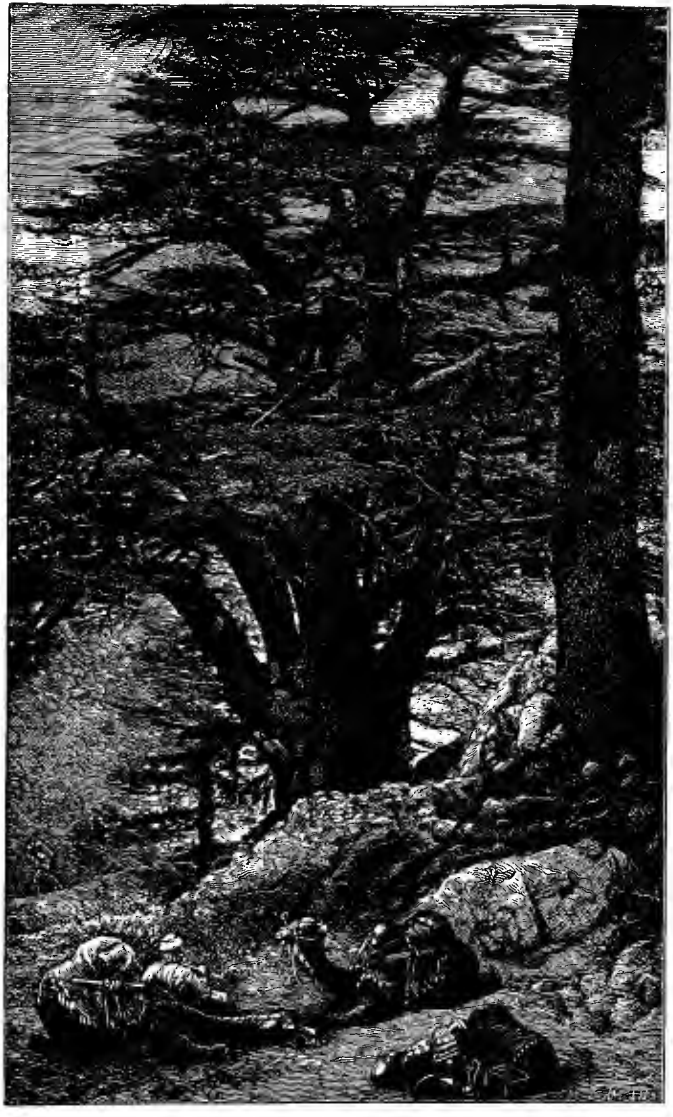
'The Arabs of all sects entertain a traditional veneration for these trees. They attribute to them not only a vegetative power which enables them to live eternally, but also an intelligence which causes them to manifest signs of wisdom and foresight, similar to those of instinct in animals and reason in man. . . . Alas! notwithstanding all, "Bashan languishes; Carmel and the flower of Lebanon wither;" these trees diminish in every succeeding age. Travellers formerly counted thirty or forty; more recently seventeen; more recently still, only a dozen. There are now but seven; these, however, from their size and general appearance, may be fairly presumed to have existed in Biblical times.'

Thirty years later, Canon Tristram described the same

impressive scene:—'The snow had been so far melted by the summer's sun that we were able to ascend by the highest pass, very close to the summit of Lebanon, 10,000 feet high, and descend almost directly upon the cedars. . . . No sooner had we surmounted the pass, than one of those sudden panoramas which only such an elevation could afford burst upon us by surprise. . . . In the nearer foreground was a sort of hollow, or basin, opening out to the west—the origin of the romantic Kadisha [river]. It was bare and rocky, and its sides were fringed here and there with the rough knolls which marked the deposits of ancient glaciers, the "moraines" of the Lebanon. All was brown and bare, save on one dark spot, where stood a clump of trees, the famous cedar-grove. Viewed from above, the effect of that grove is much more remarkable than when, as is generally the case, it is approached from below. . . . A few separate trees stood out from the mass, but the general appearance of the grove was of a thick clump, as though it had been a fragment of some ancient forest.

'From the top of the pass, it seemed as though in a few minutes we might reach the cedars; but we had to wind for two hours down the rocky slope. . . . The grove itself was vocal with life. . . . We picketed our horses under one of the ancient patriarchs of the forest.

'The trees are not too close, nor are they entirely confined to the grove. Though the patriarchs are of enormous growth, they are no higher than the younger trees, many of which reach a circumference of eighteen feet. In the topmost boughs, ravens, hooded crows, kestrels, hobbys, and wood-owls were secreted in abundance, but so lofty are the trees that the birds were out of reach of ordinary shot. . . . The breeze as it soughed



CEDARS OF LEBANON.

through the dark boughs seemed to breathe sounds of solemnity and awe, and to proclaim them to be "the trees of the Lord," "the cedars of Lebanon which He hath planted."'

Other groves occur at no great distance, one of considerable extent, and another above the site of the ancient Gebal, whence Hiram's artificers came (1 Kings v. 18, marg.).

By the Hebrew poets, as every Bible reader knows, these forests on their northern borders were regarded with sacred though not with superstitious awe. The cedars were the type of power and majesty, of grandeur and beauty, of strength and permanence:—'trees of Jehovah' planted by His right hand among the 'great mountains;' masterpieces of His creative skill; matchless in lofty stature, wide-spreading shade, perpetual verdure, refreshing perfume, and unfading fruitfulness. Some of the finest imagery in Old Testament song is drawn from this oft-frequented source. The mighty conquerors of olden days, the despots of Assyria and the Pharaohs of Egypt, the proud and idolatrous monarchs of Judah, the Hebrew commonwealth itself, the warlike Amorites of patriarchal times, and the moral majesty of the Messianic age, are all compared to the towering cedar in its regal loftiness and supremacy. (See Isaiah ii. 13; Ezek. xvii. 3, 22, 23; xxxi. 3–18; Amos ii. 9; Zech. xi. 1, 2, &c.) It was the boast of Sennacherib that he would destroy, after the manner of his nation, as shown by the cuneiform inscriptions, the vegetable glory of Lebanon (2 Kings xix. 23); and in like manner the cedars and 'firs' are represented as exulting over the downfall of the Babylonian power, saying, 'Since thou art laid down, no feller is come up

against us' (Isaiah xiv. 8)[1]. The passage just quoted from Ezekiel xxxi. forms part of a magnificent description of the giant tree and of the almost superhuman grandeur of which it is made the emblem. Though generally the type of outward exaltation, the cedar, in its steady and continual growth, is fitly likened to the spiritual progress of the righteous man (Psalm xcii. 12).

Cedars are mentioned but once in the Pentateuch, in Numb. xxiv. 6, where Balaam, who had doubtless seen them growing amidst his native mountains (xxiii. 7), compares the far-stretching encampments of the Israelite tribes in the Jordan valley to 'cedar trees beside the waters.'

Turning to more prosaic allusions, the frequent references in the Old Testament to its economic uses abundantly prove the high value which the Hebrews set upon the wood of this tree. Its soundness and freedom from knots, its almost unlimited durability, and its agreeable colour and fragrance, fully account for its employment in the best class of public and private buildings. In this country the growth is too rapid to afford a durable wood; but in its native forests the timber is of superior excellence; in accordance with the statements of ancient writers, whether Oriental or Classical.

It is in the great architectural achievements of Solomon that the cedar comes into special prominence. The chief wood-work of the first Temple and of the royal palaces (like that of David, 1 Chron. xiv. 1) was of this material, one of the latter edifices being named 'the house of the forest of Lebanon' (1 Kings vi, vii). The preference shown by the monarch for this wood led to its becoming

[1] See *Fresh Light from the Ancient Monuments*, pp. 105, 111, &c., and *Babylonian Life and History*, pp. 31, 33.

as common in the Hebrew capital during his reign as the inferior timber of the sycomore-fig[1] had been in previous times (1 Kings x. 27; 2 Chron. ix. 27; Song of Solomon i. 17). The later kings of Judah had similar dwellings (Jer. xxii. 14, 15), and the same is implied of the Assyrian monarchs by the prophet Zephaniah (ii. 14) in his denunciation of Nineveh. In the British Museum are some fragments of wood, brought by Sir A. H. Layard from the Assyrian metropolis, and which Mr. Carruthers has identified as cedar. The Tyrians are said by Ezekiel (xxvii. 5) to have used the trunks of Lebanon cedars, as later seafaring nations those of 'Norwegian pine,'

'. . . . . to be the masts
Of some tall amiral.'

And Herod the Great, according to the testimony of Josephus, used cedar-wood in his restoration of the second Temple.

The above and other historical references afford some idea of the enormous consumption of these noble forest trees by the Tyrians, on behalf of David (1 Chron. xiv. 1; xxii. 4) and Solomon, and, as we may be sure, on their own account in equal or larger measure. If to these and like demands upon the Syrian forests we add the wanton destruction of useful trees by invading armies, we need not wonder at the diminished glories of Lebanon, or doubt the former extent of its pines and cedars, but rather feel surprise that the 'shadowy shroud' of vegetation has not long since been rent away.

Other nations beside those we have mentioned are said to have valued the cedar. It was imported by the Egyptians from Syria for various kinds of cabinet-work

[1] See under SYCOMORE-FIG in the next chapter.

and coffins for their embalmed dead. Rameses, the Sesostris of the historians, is even said to have built ships of this material. It was used in the great Persian edifices at Persepolis, in the first temple of Diana at Ephesus, and that of Apollo at Utica, where the age of the cedar timbers was computed at 2000 years. Believing the wood to be both imperishable and antiseptic, valuable manuscripts were committed to cabinets of cedar-wood; and, according to Vitruvius and Horace, books were smeared with oil of cedar in order to preserve them from decay. 'How can those who write only for gain (asks the poet) produce works that shall deserve to be anointed with cedar or enclosed in cypress[1]?' The same oil, we are told by Herodotus, was used by Egyptian embalmers to preserve the body from decay. There is, however, no mention in Scripture of any economic use of the cedar, despite the high value set on it, except as timber.

Virgil[2] mentions the wood as employed in his day for dwellings, for images of the gods, and as burnt for its perfume; but Dr. Daubeny is of opinion that the Latin word *cedrus* included also the known species of juniper, and that one or more of the larger kinds of the latter may have been intended by the poet.

The remark just quoted may be applied to the account given in the Book of Leviticus of the ceremonial observances connected with the cleansing of leprosy (ch. xiv) in which 'cedar-wood' is directed to be taken, as also in the sacrificial rites described in Numb. xix; in both cases, no doubt, with an intelligible symbolical meaning. As the wood of the true cedar was not obtainable in the Sinaitic wilderness, we may fairly conclude that some

[1] Horace, *A. P.* 331-2.
[2] *Georg.* ii. 443; iii. 414; *Æneid*, vii. 13. 178.

closely allied tree is intended; and the savin (*Juniperus sabina*), a common bush in the peninsula, satisfactorily answers all the requirements of the above passages. It grows in Southern Europe and South-western Asia, and is not uncommon in English shrubberies. Oil of savin is also used in medicine.

CHESNUT (Heb. עַרְמוֹן *armon*).

'The *chesnut* trees (R. V. plane trees) were not like his branches.'—Ezek. xxxi. 8.

As the chesnut is not a native of Palestine, some other rendering of the Hebrew word *armon* must be sought for; and botanists are agreed that the ORIENTAL PLANE (*Platanus orientalis*) is the tree mentioned in Gen. xxx. 37, and in the Book of Ezekiel as above quoted. This is one of the most agreeable and conspicuous objects in the vegetation of the river-side and other watered districts of Syria and the Holy Land. It grows wild on the banks of streams in the Lebanon district, and is cultivated wherever sufficient moisture can be found. It is chiefly remarkable for the umbrageous shade which it affords, so grateful in the warmer regions of Europe and Asia. This is due to its broad palmated leaves, and to the horizontal growth of its branches, yielding a perfect and delightful protection from the sun's heat. To this the prophet Ezekiel undoubtedly points in the passage just cited. He is comparing the Assyrian monarchy to a majestic cedar, and adds, 'The fir trees were not like his boughs, and the *plane* (chesnut) *trees* were *not like his branches*; nor any tree in the garden of God was like unto him in his beauty.' Casual as the botanical allusion is, it is sufficient to indicate the

estimation in which the plane tree was held by the contemporaries of Ezekiel. Under favourable conditions it grows to a height of seventy feet, and yields a white and fine-grained wood suited for various economic purposes. It is said that the Turks formerly employed plane-wood for ship-building. The bark is smooth and whitish, and scales off annually in patches; this may illustrate Jacob's stratagem (Gen. xxx. 37). The flowers are minute, in globular and pendent catkins, whence a number of downy seeds are shed in the autumn.

The range of *P. orientalis* is from Europe through Western Asia to Cashmere; in the Western Hemisphere the American plane (*P. occidentalis*), an allied species, replaces it in corresponding latitudes. Both have been naturalized in this country for more than two hundred years; and Lord Bacon is credited with having planted some of the earliest specimens of the Oriental plane in his grounds at Verulam.

From the Greek and Roman historians it would seem that an almost extravagant value was set on the plane tree. Pliny says that it was introduced into Southern Europe from Asia Minor viâ Sicily, and that some individuals in his day were of marvellous dimensions. A magnificent specimen growing in Lycia contained in its hollow trunk a room about eighty feet in diameter, in which a Roman proconsul entertained eighteen guests at a banquet. A like story is told of a tree growing in the garden of Caligula's villa at Velitra. In Athens and other Greek cities avenues of plane were planted, as in Persia to this day, forming cloistered walks for the pupils of Plato and Aristotle; and under their shade in an island of the Levant, called Plataniste, the young Spartans used to perform their athletic exercises. A

splendid group grows on the shores of the Bosphorus, the largest being 90 feet in height and 150 in circumference. It was under some such gigantic specimen as these that the dissolute and wayward Xerxes halted with his enormous army on his way to invade Greece; and here he frittered away an interval of critical importance in paying mad compliments to this noble plant.

The allusion of the Jewish prophet to the spreading foliage of the plane is corroborated by a passage in the apocryphal Book of Ecclesiasticus, where wisdom is likened to 'a plane tree' which has 'grown up by the water' (ch. xxiv. 14).

Cypress (Heb. תִּרְזָה *tirzah*).

'He heweth him down cedars, and taketh the *cypress* and the oak.'—Isaiah xliv. 14.

As the word תִּרְזָה (*tirzah*) occurs only in the passage above quoted, there is little in the way of internal evidence to determine its precise meaning. It is derived from תָּרַז (*taraz*), signifying 'to be hard;' and as it is closely connected with the oak, the rendering of the Revised Version, 'holm tree'—following the oldest Latin translation—seems a probable one. We learn from Pausanias that the evergreen oak was used in the manufacture of idols, and we know that among the species growing in Palestine the Valonia Oak (*Quercus ægilops*) reaches noble proportions, and forms forests in Bashan and Galilee. It was also regarded by classic writers as the loftiest of its kind in Greece, and as yielding the best timber. The acorns of this species, according to Hooker, are used in Syria for food. We may therefore accept the above translation as substantially correct;

though, botanically regarded, the name 'holm oak' should be restricted to the evergreen oak of Southern Europe (*Q. ilex*).

Ebony (Heb. הֹבְנִים *hobnim*).

'The men of Dedan . . . brought thee horns of ivory and *ebony*.'—Ezek. xxvii. 15.

Dedan, a name occurring twice in the chapter above quoted, represents, as we find from comparing Gen. x. 7 with xxv. 3, two different tribes; the one Cushite, the other Semitic, and descended from Abraham by Keturah. Geographically, therefore, two different localities are also indicated as inhabited by Dedanim. The Semitic tribe probably inhabited some part of Idumea, and supplied from the wool of their flocks chariot-cloths for the nobles and soldiers of Tyre (Ezek. xxvii. 20). The 'ivory' and 'ebony' were obtained from the Farther East, through the Cushite race, who seem to have settled in Arabia and occupied themselves in commerce (ver. 15).

The black-hued wood familiar to us under the name of ebony is one of several species of the genus *Diospyros*, natives chiefly of tropical India and Ceylon, whence so many products were brought, in and after the days of Solomon, into Syria and Palestine viâ Arabia. It is however represented also in Europe and North America, and a recent writer gives South Africa and the Mauritius as additional localities. This confirms the remark of the poet Virgil, 'India alone yields the black ebony[1],' and that of Pliny, Herodotus, and Lucan, that ebony came from Ethiopia. The Black Ebony (*D. melanoxylon*) is brought from the Coromandel Coast; *D. Ebenaster* is termed the bastard ebony of Ceylon; while the allied

[1] *Georg.* lib. ii. 116.

Coromandel wood, with its beautifully-variegated grain, is obtained from the same island.

The trees of this genus are large and slow of growth, with simple leaves and a bell-shaped flower. The outer wood is white and soft, but the inside turns hard and black with age; thus acquiring the properties which have rendered it so much valued by ancient and modern nations. Dr. Bonar remarks that in travelling in Palestine and the Desert his dragoman carried an ebony staff as his wand of office. The Egyptians were well acquainted with the use of ebony, as may be seen by the boxes, images, and other articles, wholly or partially made of that wood, in our National collection.

FIR (Heb. בְּרוֹשׁ *berosh*).

PINE (Heb. תִּדְהָר *tidhar*).

'The *fir tree*, the *pine tree*, and the box.'—Isaiah lx. 13.

In speaking of the cedars of Lebanon reasons have been given for including the junipers under the term used by the Old Testament writers to denote those mightier trees of the forest. The word *berosh* (uniformly translated 'fir' in the Authorized Version) seems, in like manner, to comprehend all the other coniferous trees of Palestine. These consist of *four* species of PINE, and the funereal Cypress. The true firs (*abies*) are not found in that country; but the distinction is scarcely recognized except by botanists. In common parlance the *Pinus sylvestris* of our own islands is called the 'Scotch *fir*'; but, botanically, the pines have needle-like leaves in clusters of two, three, or five; and the scales of their cones do not fall off. The leaves of the firs are more flattened, do not grow in clusters, and the cone-scales are

deciduous or falling. The native pines of Palestine are the Pinaster (*P. pinaster*), the Aleppo or maritime (*P. Halepensis*), the stone (*P. pinea*), and the Pyrenean (*P. Pyrenaica*). The cypress is the common species (*C. sempervirens*), the 'mournful cypress' of Western Asia and Southern Europe.

An examination of the Scripture allusions to 'cedars' and 'fir trees' will show that these represent two groups of conifers closely associated in their native habitats and in the value set upon them; 'firs,' however, being deemed inferior to the majestic cedars (cf. 1 Kings v. 8, 10; 2 Chron. ii. 8; Song of Sol. i. 17; Isaiah xiv. 8; Ezek. xxvii. 5; Zech. xi. 1, 2). The תִּדְהָר (*tidhar*), rendered 'pine' in Isaiah xli. 19 and lx. 13, is ranked with trees of recognized beauty and importance.

Nearly one-half of the Biblical references to this family are in connexion with Solomon's architectural enterprises, cedar and pine-wood supplying the timber for temple and palaces. With these we may include the cypress on the authority of Josephus. David and his choir performed on instruments constructed of 'fir' (2 Sam. vi. 5). The prophet Isaiah thrice speaks in terms which suggest the value or beauty, or both, of the pine tribe (ch. xli. 19; lv. 13; lx. 13). Nahum, in his splendid description of the invading armies of Media (ch. ii. 3, R. V.), seems to imply that the warriors' spear-shafts were of this material; and Ezekiel states that the Lebanon pine-woods supplied the Tyrians with planking for their ships (ch. xxvii. 5). So Virgil long afterwards wrote of the value of 'the pine for ships[1].' The lofty and graceful stature of the cypress is twice alluded to in the apocryphal Book of Ecclesiasticus (xxiv. 13 and l. 10), as

[1] *Georg.* lib. ii. 442, 443.

the thick foliage of the pines is associated by Ezekiel with that of the cedars (ch. xxxi. 8). The fruit is but once mentioned, in the prophet Hosea (xiv. 8), 'I am like a green fir tree; from Me is thy fruit found.'

The pines inhabit the temperate regions of both hemispheres, and have been known from time immemorial as among the most useful of cone-bearing trees. At least three of the four Syrian species, above enumerated, besides the cypress, were known to classical writers, and are still valued on the continent of Europe. The pinaster or cluster pine forms a small forest on the sand-hills near Beirût, where (like *P. Halepensis*) it has probably been planted to check the incursions of the drifting soil. It has also been employed in reclaiming the barren *landes* on the western coast of France. It grows in Italy as far south as Genoa, where it gives place to the more important Aleppo or maritime pine. This is the commonest species in Palestine, ranging from Lebanon to the hills south of Jerusalem, and from the maritime plain on the west to the mountains beyond Jordan. Travellers have repeatedly recorded how a 'zone of pines' marks the change of temperature due to elevation on these Syrian heights. Carmel has still its pine-woods, but these, like other timber-trees, were much more numerous and extensive in former ages. The wood of the Aleppo pine is said to be somewhat inferior; but this may only be due to local causes.

The stone pine, which is common on the northern slopes of Lebanon, is probably the species which the Romans used to plant in gardens and around bee-hives. Until lately there existed near Ravenna a magnificent forest of these pines, nearly forty miles in extent, and compared, not extravagantly, to a grove of palms for

grace and beauty. This species is not only a characteristic feature in the Italian landscape, but also yields a fine-grained wood ; while the kernels of its seeds have been much esteemed as a delicacy from ancient times, jars containing them preserved in honey having been found in the larders of the buried city of Pompeii. It is possible that the Hebrews may have known of the edible qualities of these pine-seeds.

The Pyrenean pine also grows on Lebanon as well as on the range from which it derives its specific name. The wood is of similar value to that of the preceding kind. Bishop Arculf, one of the early travellers in Palestine (A.D. 700), mentions a fir (pine?) wood 'covering a low hill some three miles north of Hebron.' He suggestively adds that the timber was carried to Jerusalem *for fuel.* Such statements account for the disappearance of many a grove and forest of olden time. The same traveller says the Sea of Tiberias was 'surrounded with thick woods.'

The cypress was doubtless included in the language of praise and admiration accorded to 'fir-trees' by Old Testament poets and seers ; and it is not unlikely that either the cypress or the stone pine may be the *tidhar* of the prophet Isaiah—a tree not particularized elsewhere; while the special durability of its timber was fully recognized among woods of a like kind. But there is no trace of that association of the cypress with the resting-places of the dead which is so conspicuous among the modern Orientals, even in Palestine itself, and has prevailed in Southern Europe for at least two thousand years. Horace reminds his friend that of all the trees he had planted none save the cypress would be able to 'serve their master beyond the present brief

stage of existence[1].' The oldest tree in Europe is a cypress in Lombardy, which, tradition says, existed in Julius Cæsar's days; and we read that the doors of St. Peter's Cathedral at Rome were made of cypress wood; laws were inscribed on tablets of cypress; heroes were buried in coffins of this material, and the Egyptians imported it for a like purpose, together with cedar and fir.

This tree is not uncommon in gardens and cemeteries in our own country, as in France, though the date of its introduction is not known; but its home is in regions more free from excess of moisture, and characterized by a higher summer temperature than Great Britain.

Gopher Wood (Heb. גֹּפֶר *gopher*).

'Make thee an ark of *gopher wood*.'—Gen. vi. 14.

The word גֹּפֶר (*gopher*) occurs nowhere in Scripture except in the above passage, and is therefore wisely left untranslated in both our modern Versions. A very ancient tradition, however, asserts that the ark built by Noah was of CYPRESS wood. A like statement is made by historians as to the fleet of ships built by the Assyrian queen Semiramis, and of the armadas constructed by Alexander and sent forth from Babylon. We know, moreover, that the cypress, and more than one species of pine, with other resinous trees, are still found in the regions watered by the Tigris and Euphrates[2]. It may therefore be at least affirmed that there is no improbability in the traditional view, though nothing can be inferred from the original term employed by the writer of the Book of Genesis.

[1] *Carm.* lib. ii. od. 14.

[2] Compare also כֹּפֶר *kopher*, 'pitch,' in Gen. vi. 14.

HEATH (Heb. עֲרָעָר *arar*, עַרְעֵר *aroer*).

'He shall be like the *heath* in the desert.'—Jer. xvii. 6.

Every reader is familiar with the beautiful tribe of plants known as 'heaths' and 'heather,' both those which carpet our native moorlands, and the more luxuriant *Ericas* of the Cape, so frequent in English conservatories. But the hills of Palestine, while abounding in honey-yielding flowers, never afford to the traveller a view of tracts

'Where the wild heath displays its purple dyes.'

The order is scarcely represented in Syria, the lovely arbutus or strawberry tree excepted; and not at all in the districts bordering Canaan on the south. Hence it is easy to pronounce the Authorized rendering of the Hebrew words *arar* and *aroer*, in the above passage and in ch. xlviii. 6 of the same book respectively, a manifest error, unfortunately perpetuated in the Revised Version. The latter gives, as a marginal alternative, 'a tamarisk,' which from a geographical point of view is fairly admissible. But it may be well to examine both the word and the context. In the former of the two passages cited the prophet contrasts the godly man with him who 'maketh flesh his arm'; comparing the former to 'a tree planted by the waters,' that 'spreadeth out her roots' by the 'flowing river,' and the latter to 'the *heath* in the desert'; adding, he 'shall not see when good cometh, but shall inhabit the *parched places* in the *wilderness*, in a *salt land* and not inhabited.' In ch. xlviii. 6, Moab is denounced, and her citizens bidden to 'flee . . . and be like the *heath* in the *wilderness*.'

It seems evident therefore that the first reference is to

the barren and desolate districts common in the neighbourhood of 'the Salt Sea' and the region further south, rather than to the Wilderness of Sinai; and to some bare and naked shrub, just able to exist in the ungenial soil, but deriving no access of life and verdure from the return of the spring. There are many weird and stunted shrubs in that 'wilderness' which well illustrate the prophet's simile; and as in the other portion of the figure no specific 'tree' is mentioned, it is fair to conclude that in this the allusion is equally general—'a naked bush in the desert.'

The reference seems to be identical in ch. xlviii. 6; here the margin of the Authorized Version has 'a naked tree,' which might advantageously have been retained by the Revisers.

JUNIPER (Heb. רְתָם *rothem*).

'He lay and slept under a *juniper* tree.'—1 Kings xix. 5.

The leguminous or pod-bearing order of plants, to which so many important vegetables belong, is, like the labiate order, very largely represented in Palestine, more so indeed than any other[1], and there, as in our own land, it serves both for use and ornament.

In the 'south country' and in the 'great and terrible wilderness,' in the warm districts surrounding the Dead Sea, and in the picturesque ravines which cleave the hills east and west of the Jordan valley, grows one of the loveliest of Bible plants—a species of BROOM or genista. Travellers have dwelt with delight upon the beauty of its pink-white blossoms, clustered on the hill-sides or dotting the open plains, and exhaling an odour as sweet

[1] The Report of the Palestine Exploration Fund Survey enumerates 358 species.

as that of an English beanfield. It is called by the Arabs *rit'm* or *retem*, and hence has received from botanists the technical name of *Retama* or *Genista rætam*. The characteristics of the plant correspond so closely with what is stated of the *rothem* (incorrectly translated 'juniper' in our Versions) that there seems no reason to doubt the identity. The dispirited prophet in his flight from the furious Jezebel rested and slept under a *rothem* tree; so the modern Arabs are glad to avail themselves of the shelter of the *retem*, which grows to a height of from eight to ten feet. Dean Stanley and Drs. Robinson and Bonar, as well as other travellers, also speak of its slight but grateful shade in the 'weary land' of the south. In Psalm cxx. 4 'coals of *juniper*' are mentioned as of proverbial fierceness; and we are informed that the charcoal of the *retem* is so highly valued that the Bedouins destroy the shrub in large numbers in order to sell the produce for the Egyptian markets. The patriarch Job (xxx. 4) speaks of outcasts being driven by the presence of famine to 'cut up *juniper* roots for their meat'; a striking figure of speech, since the roots of the desert broom are bitter and nauseous. Mr. Smith, late of Kew, in his little work on *Bible Plants* repeats the suggestion of the botanist Ursinus, that the edible part of the *retem* root may have been a parasitic growth which forms upon it as the 'broomrapes' do on our native species, and was formerly prized by the Maltese for its medicinal virtues, and, it is said, its fitness for food when boiled. The Arabs plant the *retem* above the remains of their dead.

One of the stations of the Israelites in their wanderings was named Rithmah, doubtless from the abundance of the *rothem* in the neighbourhood (Numb. xxxiii. 18).

The Spaniards apply the name *retamas* to the closely allied species known as Spanish broom, planted by them in shifting sands, and given to their goats for food. The poet of Roman husbandry sings of 'pliant' and 'lowly *genistæ*' yielding fodder for the flocks and shade to the shepherd [1]. Our native broom figures more than once in history, and has served both for food and physic. The old herbalist Gerarde gives a long account of its virtues in the cure of human ills.

Mulberry (Heb. בָּכָא *baka*).

'When thou hearest the sound of a going in the tops of the *mulberry* trees.'—2 Sam. v. 24.

Although the black and white mulberry are extensively cultivated in Palestine at the present day, when the production of silk affords so important a means of subsistence to the inhabitants of the Lebanon district, the mulberry (*Morus*) does not seem to be mentioned in the Old or New Testament.

In the English Versions 'mulberry tree' is given as the equivalent of the Hebrew *baka* in the parallel narratives of one of David's victories over the Philistines (2 Sam. v. 23 and 1 Chron. xiv. 14), and in Psalm lxxxiv. 6 as a proper name ('Valley of Baca,' see margin). It is derived from a root בָּכָה (*bakah*), signifying 'to fall in drops,' and thus 'to weep.' The most natural interpretation of the incident in David's history is that a sign was given him as a test of obedience, and a pledge of success in the coming struggle with his powerful foes. This sign was the sound of a rushing blast through the trees in the valley, emblematic of the presence of Him who 'walketh upon the wings of the wind.' It would

[1] *Georg.* ii. 12, 434, 435.

accord with that 'fitness of things' which so remarkably characterizes the instruments chosen for the manifestation of supernatural power, that the tree selected in this instance should be one which would naturally be responsive to the action of wind. Among such the POPLARS have long been conspicuous for their 'trembling,' 'shivering,' and 'quaking' movements when the slightest breath of air is stirring—a circumstance due to the length and horizontal flattening of the leaf-stalks in several species, notably the aspen (*P. tremula*) with its 'many twinkling leaves'[1]. Four species grow in Palestine: the Black, White, and Lombardy poplars, well known in Europe, and a species called *P. Euphratica*, which fringes the Jordan and other rivers of the country. To this tree we venture to think, with Canon Tristram, the historian of the Books of Samuel and Chronicles makes reference; and that through its quivering foliage the promised 'marching' of the winds gave audible signal to the King of Israel and his soldiers, as they stood on the heights beyond the 'valley of the giants.' (See Josh. xv. 8.)

In the plains of the Lebanon district, the trunks of poplars, and occasionally those of willow, are used for the rough beams which support the ponderous roofs of the houses.

MYRTLE (Heb. הֲדַס *hadas*).

'Instead of the brier shall come up the *myrtle* tree.'—Isaiah lv. 13.

This fragrant and beautiful shrub, though universally admired, has received but casual notice from the sacred writers; yet these are sufficient to show that it was by

[1] Homer (*Od.* lib. vii. 106) compares the rapid fingers of the maids of Alkinous when plying their shuttles to the leaves of the tall poplar.

no means overlooked among the vegetable products of Palestine. It is named but once in the historical books, when the returned Jews under Nehemiah (viii. 15) fetched branches of MYRTLE and other trees from the Mount of Olives for the construction of booths at the Feast of Tabernacles—a custom still observed by their countrymen. In Isaiah's glowing predictions of future prosperity it is promised that the myrtle shall be planted 'in the wilderness;' and again, that the myrtle shall replace the 'brier' and the 'pine tree' the 'thorn.' In the vision of Zechariah (i. 8, 10, 11) a grove of myrtle trees is represented in a 'dell,' apparently in the neighbourhood of Jerusalem. And the myrtle appears once more in the name of Hadassah, the fair cousin of Mordecai, better known to us under her Persian title of Esther (ii. 7).

Some botanists regard Persia as the native country of the myrtle, whence it spread through Western Asia and into the regions surrounding the Mediterranean. It is found wild in Europe as far north as Marseilles, and is cultivated in the warmer parts of our own land, into which it seems to have been brought in the reign of Queen Elizabeth—it is said by Raleigh and Sir F. Carew on their return from Spain. In the sunny South it grows to the dimensions of a tree, and few objects more delight the sense than groves of this classic plant.

The Egyptians imported the myrtle for their gardens on the banks of the Nile, and, like the Greeks and Romans, wove wreaths of honour from its dark glossy foliage. Dedicated to the Goddess of Beauty, the myrtle was regarded by the ancients as the emblem of love and peace. Among the Hebrews this shrub, according to the Rabbins, symbolized justice; but there is nothing in

Scripture to support this. In Zechariah's vision the 'myrtle trees in the dell' appear to denote the Jewish Church in its then secluded condition, yet beautiful and fragrant even in obscurity.

It is doubtful if the ancient Hebrews employed the wood of the myrtle for the shafts of weapons, as we find the Romans did. The flowers and leaves are sold in the markets of Damascus and Jerusalem as perfumes; the French distil from the blossom a volatile oil; and the Italians extract a wine from the berries, while the buds, as in old Rome, are used as a spice. The fruit is eaten as a dessert in Cyprus at the present day.

The myrtle is of frequent occurrence in Palestine, though chiefly in the northern parts and on the western coast. It grows on Carmel, and in the glens round Jerusalem, as in Nehemiah's days; also in the neighbourhood of Hebron, and in the ravines of the trans-Jordanic hills. By the streams which issue from the ancient heritage of Reuben and Gad the myrtle flourishes in such luxuriance as to become 'almost a timber tree,' reaching a height of twenty or twenty-five feet, and with 'a trunk as thick as a man's girth.'

OAK, TEIL TREE, (R.V.) TEREBINTH (Heb. אֵלָה *elah*, אַלָּה *allah*, אַלּוֹן *allon*, אֵיל *el*).

'He was strong as the *oaks;* yet I destroyed his fruit from above.'—Amos ii. 9.

We are accustomed to think of the oak as the special property of Englishmen,—associated with the worship of their Celtic forefathers, and supplying the 'wooden walls' which for long ages were the chief material defences of our island, beside contributing in innumerable ways to the arts of peace. But while we possess in our woods

and parks two species of OAK, Palestine owns no less than nine, beside almost as many varieties.

This fact has been somewhat obscured by the hasty assumptions of some modern writers on Biblical topography, who have maintained that the terebinth or turpentine tree (*Pistachia terebinthus*), and not any kind of oak (*Quercus*), was that to which the Hebrews gave the names above specified—all expressive of strength, like the Latin *robur*, and as fitly applied to the forest oaks of Palestine. The error doubtless arose from an insufficient acquaintance with those districts which lie out of the beaten tracks of European tourists, and to forgetfulness of the ravages to which the central and southern highlands of the country have been subjected. At the remote period when the land was colonized by Canaanite tribes, Western Palestine was probably as rich in oak forests as Eastern Palestine is still. Even now, Dr. Thomson, after many years' residence, remarks: 'Beside the vast groves at the north of Tabor and on Lebanon and Hermon, in Gilead and Bashan, think of the great forests extending thirty miles at least, along the hills west of Nazareth, over Carmel, and down south beyond Cæsarea Palæstina.' He adds: 'To maintain that the oak is not a striking or abundant tree in Palestine, is a piece of critical hardihood tough as the tree itself. There is no such thing in this country as a terebinth *wood*. . . . And, finally, the terebinth is deciduous, and therefore not a favourite shade-tree. It is very rarely planted in the courts of houses, or over tombs, or in the places of resort in villages. It is the beautiful evergreen oak that you find there.'

Some oaks are evergreen, and others deciduous, shedding their foliage in the 'fall,' as do our native species.

This is an obvious distinction, and one which would be noticed even in an unscientific age. That such was the case with the ancient Hebrews we learn from two passages in the Book of Isaiah: 'Ye shall be as an oak (*elah*) whose leaf fadeth;' 'As a teil tree[1] (*elah*), and as an oak (*allon*), whose substance is in them when they cast their leaves' (ch. i. 30; vi. 13). Following this natural classification, we find the evergreen oaks (called also ilexes and holm oaks) to be represented chiefly by the prickly evergreen or Kermes oak (*Quercus coccifera*), which is a native of the countries bordering the Mediterranean; the insect (*coccus*) from which it derives its specific name yielding the dye known as 'Turkey Red.' On the hills of Galilee and Carmel, Gilead and Bashan, it attains to magnificent proportions. The so-called 'Abraham's Oak' near Hebron is a splendid specimen of this species, twenty-two feet in circumference. And the oak of Libbeiya in the Lebanon measures thirty-seven feet in girth, and its branches cover an area whose circumference measured over ninety yards. The Arab name is *Sindian*. But the growth of these and other trees is prevented by their wholesale destruction, when young, for fuel.

Another abundant species is the Valonia or prickly-cupped oak (*Q. ægilops*), well known in the Levant, where its acorns are used in tanning, but the Arabs eat them for food. It is most common in the north and on the hills beyond Jordan, where it predominates over the evergreen species. This seems to be the 'oak (*allon*) of Bashan,' and, as we have seen, may be the 'cypress' of Isaiah xliv. 14.

[1] *Teil* is an old name for the lime-tree (*Tilia*).

'ABRAHAM'S OAK.

There are three other deciduous oaks, less common and conspicuous, in Palestine; the Oriental gall oak (*Q. infectoria*), which is comparatively small; and the Turkey oak (*Q. cerris*), and our own sessile-cupped variety (*Q. sessiliflora*), which are found high up on Lebanon. The Arab name for oaks is *ballût*—the distinction between evergreen and deciduous kinds being apparently recognized. It may be remarked that the common holm oak of Europe (*Q. ilex*) is rare in Syria.

Entering Palestine from the east, the Hebrew invaders could not have failed to be struck with the splendid forest vegetation of Bashan and Gilead, especially after the stunted vegetation of the desert, and even in contrast to the palms and sycomore-fig trees of Egypt. It was natural that the oak should become to them the symbol of 'strength,' and receive names conveying that meaning. Probably it was by modifications of the original root-word that the evergreen and the deciduous kinds were distinguished, the less important species of each being included with the leading representatives. And among the deciduous oaks they appear to have comprised the TEREBINTH, or turpentine tree (*Pistachia terebinthus*[1]), because of its strong resemblance to them in outward appearance and habit, and because in the south and south-eastern part of Canaan the terebinths become numerous (though not forming woods or forests), and in Moab and Ammon, according to recent travellers, appear to replace the more hardy tree, for which the climate becomes too warm and too dry.

After a close examination of the various words above enumerated, it seems impossible to determine with cer-

[1] According to Boissier, the large terebinth of the Holy Land is an allied species, *P. palæstina*.

tainty any *verbal* distinction between the oak and the terebinth, beyond perhaps this, that *allon* is never applied to the *terebinth*; in accordance with which view we find that the same word is always used for oak *woods* and *forests*[1]. Moreover, when, as in Isaiah vi. 13 and Hosea iv. 13, *allon* and *elah* are distinguished, *allon* appears to be the oak, while *elah* (translated 'teil tree' and 'elms' in A.V.) may be oak or terebinth. Since, however, *allon* is the word used to denote oaks in the plural, it must include both evergreen and deciduous species; for both the Kermes and Valonia oaks formed and still form woods and forests in Palestine.

The ordinary reader of the Old Testament may, therefore, come to conclusions as reliable as those of the philologist, by considering the context of each allusion. The following hints may be serviceable:—

1. Where the plural is used, and always where grove, wood, or forest is implied, true oaks are to be understood.

2. References to idolatrous ceremonies under the shadow of 'oaks' suggest the same conclusion, especially when 'hill-tops' and 'mountains' are specified.

3. Individual trees mentioned as landmarks may be oaks or terebinths, but the latter mainly in the warmer parts of Palestine.

(Among such references oak is mistranslated 'plane' in some eight or nine cases; in all these passages the Revised Version gives the correction, in text or margin.)

4. The terebinth does not appear to have been applied to any economic purpose by the ancient Hebrews;

[1] The apparent exceptions are Isaiah i. 29; lxi. 3; Ezek. xxxi. 14; in which the word is אֵילִים (*elim*, 'strong ones'); it is doubtful, however, if specific trees are intended, at least in the two latter passages.

though the turpentine is extracted from it by incisions in the bark at the present day.

The direct references to the oak, including all the terms cited, are not very numerous, but we must mentally include such trees in the 'forests' and 'woods' so frequently mentioned. That they were deemed not unworthy of comparison with the cedars of Lebanon we gather from such poetical allusions as Isaiah ii. 13; Amos ii. 9, etc. That the timber was valued we may infer from its being used in the manufacture of idols (Isaiah xliv. 14); while the prophet Ezekiel states (ch. xxvii. 6) that the oak-trunks of Bashan supplied oars for the Syrian galleys; it is fair therefore to conclude that the Jews utilized so durable a material in other ways.

It is probable that by the 'tree planted by the waters' of Psalm i. 3 and Jer. xvii. 8 an evergreen oak may be implied; and the same may be said of the 'great tree' seen in vision by Nebuchadnezzar (Dan. iv. 10–12), to whom the oak was probably a familiar object in his gardens at Babylon.

Of the present and past distribution of oaks in Palestine enough has already been said. It has been also intimated that the terebinth is common in the south and south-eastern districts, but chiefly as isolated trees, some of great size and age, not unlike deciduous oaks, and like them probably forming well-known landmarks. Thus we have the 'oak' or 'terebinth' of Shechem, Mamre, Moreh, Jabesh, Zaanaim, Tabor, and others—a custom evident enough in the topography of our own country. This tree is marked by a thick trunk and stout spreading branches; and its inconspicuous flowers are followed by oval berries, not unlike unripe grapes. It is once mentioned in the apocryphal Book of Ecclesiasticus (xxiv. 16):

'As the *turpentine* tree I stretched out my branches, and my branches are the branches of honour and grace.'

A smaller species, the LENTISK or mastick tree (*P. lentiscus*), is once mentioned by the latter name in the Book of Susannah (ver. 54).

It is a shrub well known in Italy and Greece as yielding the 'mastic' of commerce. In Palestine it forms wild undergrowths in the less frequented parts of the country; and with the Christ's Thorn (*Zizyphus spina Christi*) constitutes the lowest belt of jungle on the eastern bank of the Lake of Galilee. This 'thorn' may be the one alluded to in Isaiah vii. 19, lv. 13, as it is specially a plant of the Ghor and the Desert; but amidst the multitude of thorny shrubs now found in and around the Land of Promise, the identification of a particular one must be conjectural, as before remarked, except where the Hebrew and Arabic names appear to be specific and synonymous.

OIL TREE (Heb. עֵץ שֶׁמֶן *ets shemen*).

'I will plant in the wilderness . . . the *oil tree*' (R. V. marg. *oleaster*).—Isaiah xli. 19.

Although, as we shall see hereafter, the olive was the chief and almost the only source of the oil mentioned in Scripture, another 'oil tree' is mentioned in three several books of the Old Testament, though the Authorized Version gives an inaccurate rendering in two cases, and in one of these the Revisers have been equally misleading. The passage cited above is correctly translated, 'I will plant in the wilderness [probably the scene of the Israelite wanderings is intended] the cedar . . and the *oil tree*' (lit. 'tree of oil').

The same words are used in 1 Kings vi. 23, &c., to

denote the wood of which the symbolic figures of cherubim in Solomon's temple were made. Yet they are rendered 'olive tree' and 'olive wood' in both English Versions. That this is an error is manifest from the remaining reference, where we read in the Book of Nehemiah (viii. 15) that the returned Jews fetched 'olive' branches *and* 'pine' branches—'pine' being a mistranslation of עֵץ שֶׁמֶן *ets shemen*, in deference to the Septuagint, which has 'cypress.'

All these allusions appear to point to the OLEASTER (*Eleagnus angustifolius*), sometimes erroneously termed the 'wild olive.' (So the R. V. renders Neh. viii. 15.) It has no botanical affinity with the latter, but it yields an inferior kind of oil, used as a medicament, though unfit for food. The oleaster is a small tree common in all parts of Palestine except the Jordan valley. The wood is hard and fine-grained, and hence would have been suited for the carving of images. The leaves are small and narrow, and the flowers inconspicuous; yet the oleaster is a graceful shrub. An allied species (*E. hortensis*) is cultivated in this country for its elegance of form as well as for the fragrance of its blossoms.

POPLAR (Heb. לִבְנֶה *libneh*).

'And Jacob took him rods of green (R. V. 'fresh') *poplar*.'—Gen. xxx. 37.

The word translated 'poplar' in the above passage, and in Hosea iv. 13, where the prophet is rebuking idolaters who 'burn incense upon the hills under oaks and *poplars*,' is derived from a root לָבַן, signifying 'to be white,' the same from which Lebanon ('the white mountain') derived its name.

The WHITE POPLAR (*Populus alba*), familiar in our own

country and common in Palestine and the South of Europe, may at least be regarded as uniting the conditions of these passages. It is a tree of the water-side, and yet grows high up on the hills; and the whiteness of the back of the leaves imparts a striking paleness of hue which led the Greek botanists to call it λεύκη or 'white.' The groves of white poplar were regarded as sacred to Hercules [1].

This species is planted in Damascus for its shade, and it is probable that Jacob would have met with it in Padan-aram.

The wood is soft and spongy, but is utilized by modern artificers for bowls, plates, &c. We have, however, no information as to its use by the Hebrews.

Shittah Tree, Shittim Wood (Heb. שִׁטָּה *shittah*).

'They shall make an ark of *shittim* wood.'—Exod. xxv. 10.

'I will plant in the wilderness the cedar, the *shittah* tree (R. V. 'the acacia').'—Isaiah xli. 19.

The Old Testament references to the kind of timber called 'shittim wood' are confined to the Books of Exodus and Deuteronomy, from which we learn that it was the chief material employed in the construction of the framework and furniture of the Tabernacle. The word also appears as the proper name of a district or grassy plain (*Abel*) north-east of the Dead Sea (Numb. xxv. 1; xxxiii. 49; Josh. ii. 1; Joel iii. 18).

Some tree is therefore denoted which grew in the Desert and in the Ghor, and was large enough to furnish boards of considerable size, and, we may infer, of remarkable durability. One would also judge from the

[1] Virgil, *Ecl.* vii. 61.

complete (or almost complete) absence of later references that the tree was not a native of Palestine generally.

These requirements are fully met by the Oriental ACACIAS of Sinai and the southern part of the Jordan valley. Two species in particular are of importance for size and value, *A. nilotica* and *A. seyal.* The former is an Egyptian tree locally called *sunt*[1], the latter is called *seyal*, and yields the gum-arabic of commerce. This tree, the larger of the two, has a rugged and thorny stem, and bears yellow blossoms amidst its feathery foliage; the fruit is not unlike a lupin. It has straggled northward up the Jordan valley, but its chief home is in the wadys or ravines further south, and in the 'waste howling wilderness' of Sinai. The wood is hard and durable, and admirably adapted for cabinet-work. Mummy coffins of sycamore were clamped with acacia by the Egyptians.

It would be the extreme of scepticism to deny that one at least of the Desert acacias supplied in the wilderness the timber of the sacred tent. There they still flourish; and gnarled specimens of great age still stud the moist meadows beside the Jordan, where, under the shadow of acacia groves, the 'Israelitish tribes' encamped at the end of their wanderings.

But, satisfactorily as the acacia answers to the shittim wood of Scripture, the same cannot be said of it with reference to the prophetic promise in Isaiah xli. 19, already dwelt upon under previous headings. It is there predicted that the cedar, the myrtle, and the oleaster, together with the *shittah tree*, should be planted in the wilderness. The general meaning is obvious enough—that the trees of rich

[1] Canon Tristram suggests, with fair probability, that the 'burning bush' (Heb. סְנֶה *seneh*) may have been the *sunt* (*A. nilotica*).

and fertile soils should be made to grow in the dry and sterile waste. But with what force could this be affirmed of a tree which is one of the commonest objects in the wilderness? The force of the figure is weakened by its introduction into the picture. Possibly it was from a sense of this incongruity that the Septuagint reads 'box' in this clause instead of the following one. Grammatically 'shittah' and 'shittim' appear identical, but the context of the passage just quoted seems imperatively to demand a tree which, like the others here enumerated, is unknown in the Desert. It is safest, perhaps, to leave the name untranslated.

Thyine Wood (Gk. *ξύλον θύϊνον*).

'Merchandise of gold, and silver . . . and all *thyine wood*.'—Rev. xviii. 12.

In one of the closing chapters of the Apocalypse it is prophesied that amongst the judgments destined to fall on the mystical Babylon, the merchants of the earth shall lament for the loss of their trade in the precious metals and 'thyine wood,' a literal translation of the Greek *ξύλον θύϊνον*. The reference seems to be to a wood of the most beautiful and costly nature, known to the Romans under the name of *citrus*, though bearing no relation to the citron family. It was yielded by a tree growing in the north of Africa, and known to botanists as *Callitris quadrivalvis*[1]—a coniferous tree closely allied to the better-known arbor vitæ. The wood was in request for furniture, especially tables, from its colour and fragrance; and the most fabulous prices are recorded as having been given for such articles. Horace proposes to use the wood for beams in a temple to Venus[2];

[1] The older botanical name was *Thuja articulata*.
[2] Horace, *Carm.* lib. iv. od. 1.

Vitruvius says that a 'citron table' was worth more than its weight in gold; and both Homer and Pliny speak of the use of thyine wood for sacrifices to the gods. The name is probably from *θύειν*, to sacrifice. Some years since, specimens of cabinet-work made from the *Callitris* were exhibited in Paris, and attracted much attention. A plank of the same material is said to be in the possession of the Royal Horticultural Society, and samples of the wood are preserved in the museum at Kew. The Turks regard the wood as indestructible, and employ it in their sacred edifices. It is now obtained from the province of Algeria.

WILLOW (Heb. עֲרָב *ereb*, צַפְצָפָה *tsaphtsaphah*).

'They shall spring up as among the grass, as *willows* by the watercourses.'—Isaiah xliv. 4.

Several species of this well-known tree occur in Palestine, abounding beside the rivers and winter torrents of the country, conspicuously so on the banks of the Jordan and its eastern tributaries, the Arnon and Callirhoe. Lamartine speaks of 'forests of willows of every species' fringing the Jordan, but he probably includes poplars and other moisture-loving plants. WILLOWS flourish in the glens bordering the Dead Sea, where the rocks are tapestried by the equally moisture-loving maidenhair fern.

Though not so abundant as in our own humid climate and soil, in which the multiplicity of its forms makes the genus *Salix* a puzzle to botanists, the willow must have been a noticeable plant in Bible days. It first appears as one of the trees from which boughs were to be fetched for the construction of booths at the annual Feast of Tabernacles (Lev. xxiii. 40). Here and in other passages

the phrase 'willows of the brook' occurs. In the Book of Job (ch. xl. 22) the hippopotamus is described as couching under 'the willows of the brook.' In the magnificent description given by the prophet Isaiah (ch. xv) the defeated Moabites are depicted as carrying away their possessions to 'the brook of the willows' for refuge: and in the promise quoted at the head of this section, the godly seed of Jacob are to 'spring up' with the vigorous life of the richly-nourished willows beside the 'overflowing streams.'

Of the multitudinous uses to which the willows, sallows, and osiers, in their various kinds, have been or are applied in our own islands, the history of the Hebrew nation affords no trace, except in connexion with the autumnal festival; we may, however, safely infer that the pliability of some species in particular may have led to their employment for wicker-work—a property recognized by nations so far apart as our Celtic forefathers and the peasantry of ancient Rome.

The passage usually recalled when 'willows' are mentioned is that in Psalm cxxxvii. 2, so often paraphrased in mournful verse. It has been generally believed that the weeping willow, named *Salix Babylonica* by Linnæus, was the veritable plant on which the captive Israelites are pathetically said to have 'hung their harps' in the land of their exile. It has also been stated that this species, now so common in England, was originally introduced by Lady Suffolk, the contemporary of Alexander Pope. The poet, it is said, was present at the uncovering of the consignment, and observing some signs of life in the branches, proposed to plant them in his garden at Twickenham. There the weeping willow rooted and grew, and became the parent of a numerous race. It

seems, however, that the particular willow planted by Pope, and, until a comparatively recent period, to be seen in the grounds which once he owned, was not the first of its kind introduced into this country. It is also doubtful whether *S. Babylonica* is a native of the land whose name it bears; but in any case the poplars and willows of the Euphrates would remind the exiled Hebrews of similar plants beside their native streams, and would be called by the same general name.

The second word (*tsaphtsaphah*), used in the Old Testament for the willow, occurs but once, in Ezekiel's parable of the planted vine, which was set beside many waters 'as a willow-tree' (ch. xvii. 5). There can be little doubt of the identification; as, beside agreeing with the context, the term almost coincides with *safsaf*, the modern Arabic name for willow.

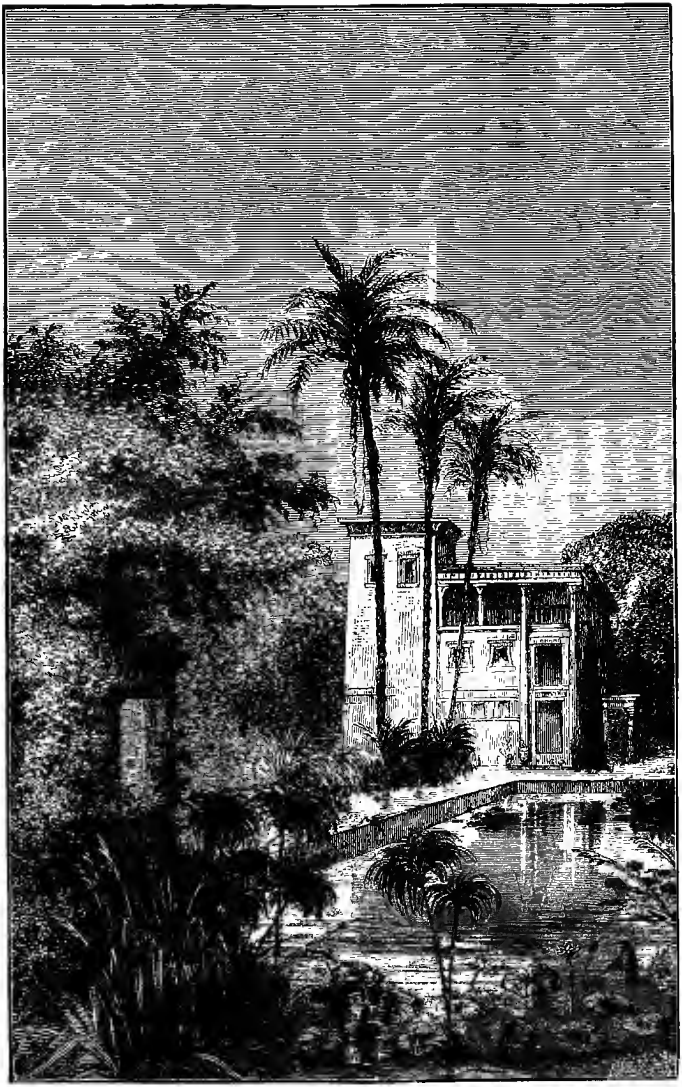
CHAPTER III.

FRUIT TREES AND SHRUBS.

PALESTINE, with its varieties of climate and its fertile soil, was and is well adapted for the cultivation of a corresponding variety of edible fruits. At the present time this is actually the case, notwithstanding the insecure and depopulated state of the country; but in Old Testament times the species of fruit-bearing trees known to the Hebrews seem to have scarcely reached a dozen. Several useful kinds, as the apple and pear, plum, orange, and peach, have been introduced at a comparatively modern date; but the abundance and excellence of the primitive produce more than compensated for its lack of variety. It was peculiarly 'a land of vines and fig trees,' of 'pomegranates and oil-olive,' and these were inferior to none of their kind; while there were others of secondary importance, such as the carob-tree and the pistachia, which, beside the common fig, were deemed worthy of being imported from the province of Syria into Italy [1].

Of 'herbs' and 'vegetables,' in the common acceptation of those terms, we shall have to speak in a succeeding chapter.

[1] Dr. Daubeny (*Roman Husbandry*) considers that but few kinds of fruit were known to the ancients. The olive and the vine are supposed to have reached Italy through Greece; and the damson was brought from Damascus, as its name implies.



EGYPTIAN VEGETATION.

The Israelites would naturally have brought from Egypt some knowledge of horticulture; and when settled in their own land, we have sufficient hints in the Old Testament writings for concluding that gardens and orchards were by no means unusual among them. The picture of 'a watered garden' was a very common one on the banks of the Nile, where irrigation was easy, and where lakes and canals were readily constructed and maintained in a state of repair. The gardens of the wealthier Egyptians were usually divided into sections, palm and sycomore-fig trees forming the 'orchard,' apart from the trellised vines and from the 'flower' and 'kitchen' plots. Solomon, perhaps for the gratification of his Egyptian bride, laid out 'gardens and orchards,' in which he 'planted trees of all kind of fruits' (Eccles. ii. 5); and in the 'Song' ascribed to him (ch. iv. 12, 13; vi. 11), a picturesque description is given of 'a garden enclosed,' watered by springs, and planted with 'nuts,' 'pomegranates,' and other 'pleasant fruits.' And although such parterres are most frequently spoken of in connexion with royal palaces (2 Kings xxi. 18; xxv. 4; Neh. iii. 15, &c.), yet other references clearly point to the possession of gardens and orchards by private individuals, distinct from those more public plantations which may then have surrounded the towns or villages of Palestine as they do at the present day (cf. Isaiah lviii. 11; Jer. xxix. 5; xxxi. 12; Amos iv. 9; ix. 14, &c.). In Cyprus—a truly Oriental island—even the poorer class of house has its garden of orange, lemon, mulberry, and pomegranate.

'Summer fruits,' to which a special name (קַיִץ *kayits*) was applied, are mentioned several times, and, as in Jer. xlviii. 32, are distinguished from the vintage, which

was an autumnal produce. These two comprise the productions now to be enumerated.

The practice of interment in gardens usually recalls the incidents of our Lord's burial and resurrection—the garden of Joseph of Arimathæa, and the 'gardener' to whose charge it seems to have been entrusted. But the custom, though well known to the Greeks and Romans, was evidently of much earlier date in Palestine, as appears from the mention of the burial-places of Manasseh and Amon, and, as it would seem, of Samuel and Joab also (2 Kings xxi. 18, 26; 1 Sam. xxv. 1; 1 Kings ii. 34). Idolatrous observances, probably connected with social festivities, took place in gardens during the moral decline of the Hebrew commonwealth, and were sternly denounced by the prophet Isaiah (i. 29; lxv. 3; lxvi. 17).

Modern travellers speak with enthusiastic admiration of the results of the diligent cultivation of fruit-trees in Palestine at the present day. Amidst the valleys and plains of the Lebanon district; in the warm coast-plain, at Jaffa, Ascalon, and Gaza; in the secluded vale of Shechem; in sheltered nooks amidst the hills that are round Jerusalem; in the once-famed Gardens of Solomon in the Wady Urtas, near Bethlehem; and in other spots too numerous to particularize, the beauty and fragrance, the excellence and productiveness of orchards, vineyards, and olive-groves proclaim in the silent eloquence of nature what the goodly land was in the days of her prosperity, and what, under a wise and equitable rule, she might yet again become.

Of Syria Mr. Farley writes:—'The gardens are filled with the orange and the citron. Aleppo sends the far-famed pistachio to market, Jaffa produces the delicious

water-melon; at Damascus there are plums, cherries, peaches of the finest kinds; and, above all, the apricot. In short, there is everything here to satisfy our material wants, to soothe the senses, and charm the imagination [1].'

ALMOND (Heb. שָׁקֵד *shaked*).

'I see a rod of an *almond* tree.'—Jer. i. 11.

The Rosaceous order of plants, found in most parts of the world, but chiefly in the temperate regions of the Northern hemisphere, is rich in plants remarkable alike for beauty and utility. The roses of our hedgerows and flower-gardens, and the fruit-bearing trees in our orchards, are so closely allied as to be grouped in one family, as may easily be perceived by comparing the blossom of a wild rose with that of a cherry, apple, or plum tree. In Palestine the true roses are restricted to the northern mountains, where three or four species have been observed, but the entire order is represented by nearly sixty species. Among these are two fruit-bearing trees, of which the ALMOND (*Amygdalus*) first claims a brief notice.

This beautiful tree is too well known to need detailed description, being a frequent ornament of our English gardens. The Hebrew name is peculiarly expressive, being derived from a verb שָׁקַד (*shakad*), signifying 'to watch for,' and hence 'to make haste.' Thus, in the vision of Jeremiah (i. 11), the prophet is shown 'a rod of an almond tree,' to signify that Jehovah 'will *hasten*' His 'word to perform it.' The symbol was

[1] *Two Years in Syria.*

a peculiarly expressive one, for early as the tree is to put forth its pinkish-white flowers in this country, it is in full bloom in Palestine in the month of January, and the fruit appears in March or April.

The almond is still cultivated in Syria, and grows wild on the northern and eastern hills. Four species have been enumerated; but it was doubtless much more abundant in ancient times. Almond blossoms formed the pattern of the 'bowls' of the golden candlestick of the tabernacle (Exod. xxv. 33, &c.), and Aaron's rod was from the same tree (Numb. xvii. 8).

As almonds were reckoned among 'the best fruits of the land' in the time of Jacob, and were sent by him to propitiate his unknown son in Egypt (Gen. xliii. 11), we may infer that they were not then cultivated in the latter country. Pliny, however, mentions the almond among Egyptian fruit-trees; and it is not improbable that it was introduced between the days of Jacob and the period of the Exodus.

In connexion with the earlier history of the same patriarch, we read that Jacob 'took rods of *hazel*' (Gen. xxx. 37). The word here used is לוּז (*luz*), which the Revisers, following the Rabbinical authorities and the analogy of the Arabic name, translate 'almond tree.' If this be correct, the ancient city of Bethel, which 'was called *Luz* at the first' (Gen. xxviii. 19), may have gained its original name from some conspicuous individual of this species.

The beautiful symbol of old age in Eccles. xii. 5, 'the almond tree shall flourish,' is doubtless based on the snowy whiteness of its aspect when viewed from a distance; perhaps also, as Mr. Carruthers has suggested, with a reference to the still bare branches, resembling the

withered limbs of the aged man, bending beneath a hoary head. So Moore has sung of

> '. . . the silvery almond-flower
> That blooms on a leafless bough.'

The almond no longer reaches us from Palestine; the 'Jordan almonds' of commerce being grown in Malaga, and large quantities being exported from Spain.

Apple (Heb. תַּפּוּחַ *tappuach*).

'And the *apple tree*, even all the trees of the field, are withered.'—Joel i. 12.

The 'apple' of Scripture, like the classical fruits of the Hesperides, has proved a source of much debate, if not actually an 'apple of discord.' The orange, citron, and quince have been proposed, as well as the more homely rendering in our English Version,—the Revisers in this case following their predecessors. It is advisable to look first at the requirements of Scripture itself. The apple tree and its fruit are mentioned six times in the Old Testament, but are not referred to in either the New Testament or the Apocryphal writings. Of the above six references, four are in Solomon's Song, one in the Book of Proverbs, and one in the prophecy of Joel. From the first group we learn that the tree was noted for its beauty, that its foliage afforded a grateful shade, and that its fruit was sweet and reviving (Song ii. 3, 5; vii. 8; viii. 5). In Proverbs xxv. 11, 'apples of gold in baskets, or filigree-work' (R. V.), are likened to 'a word fitly spoken;' and the prophet Joel (i. 12) bewails the withering of this among the other choicest trees of Canaan.

In favour of the common interpretation, Dr. Thomson, as a long resident at Beirût, is entitled to be heard with

the utmost respect. He says of the once renowned Philistine city of Askelon: 'Now the whole area is planted over with orchards of the various kinds of fruit which flourish on this coast. It is especially celebrated for its *apples*, which are the largest and best I have ever seen in this country. When I was here in June, quite a caravan started for Jerusalem loaded with them, and they would not have disgraced even an American orchard.' Adverting to the claims of the citron, he adds: 'Citrons are very large, weighing several pounds each, and are so hard and indigestible that they cannot be used except when made into preserves. The tree is small, slender, and must be propped up, or the fruit will bend it down to the ground. Nobody ever thinks of "sitting under" its "shadow," for it is too small and straggling to make a shade.'

Such a criticism as this demolishes the claims of the citron; and the fruit of the quince is open to the same objection. The orange, also, seems to be an importation of modern times.

But it is hardly so certain that the apple does, as Dr. Thomson goes on to maintain, 'meet all the demands of the Biblical allusions as to smell and colour.' Like the rest of the group to which it belongs, it affords a truly beautiful sight when laden with its early blossoms; yet 'apples of gold' seem to imply a deeper colour than that of even a 'golden pippin'[1]; and to perfume-loving Orientals, the odour of the apple would, in the writer's opinion, be deemed feeble and inoperative.

Dr. Tristram has vigorously pleaded the claims of the APRICOT (*Armeniaca vulgaris*) to be the apple of

[1] Virgil, it is true, speaks of *aurea mala*, 'golden apples' (*Eclog.* iii. 71), but also (*Eclog.* ii. 51) of *mala* (plums?) 'hoary with soft down.' The corresponding Arabic term is also somewhat general.

Scripture. As its name implies, it is thought to have been imported from Armenia into Western Asia and the South of Europe. Like the vine, it is not indigenous to Palestine, but has been cultivated and naturalized from very early times. Of the apple he observes, 'though cultivated with success in the higher parts of Lebanon, yet it barely exists in the country itself. There are, indeed, a few trees in the gardens of Jaffa, but they do not thrive, and have a wretched, woody fruit. The climate is far too hot for our apple-tree.' On the other hand, he says of the apricot: 'Perhaps it is, with the single exception of the fig, the most abundant fruit of the country. In highlands and lowlands alike, by the shores of the Mediterranean and on the banks of the Jordan, in the north of Judæa, under the heights of Lebanon, in the recesses of Galilee, and in the glades of Gilead, the apricot flourishes, and yields a crop of prodigious abundance. Many times have we pitched our tents in its shade, and spread our carpets secure from the rays of the sun. . . . There can scarcely be a more deliciously perfumed fruit than the apricot, and what can better fit the epithet of Solomon . . . as its branches bend under the weight, in their setting of bright, yet pale foliage?' This view has been adopted by other writers. A correspondent of the *Daily Telegraph*, writing from the island of Cyprus, gave the following additional particulars:—

'It will, I think, be a subject of interest to know that the identification of the fruit which in the Old Testament and in ancient Greek writings is called the "golden apple" has become possible. The three golden apples given by Venus to Milanion, whereby he won the race with Atalanta were plucked, it is said, either from the

garden of the Hesperides or from an orchard in Cyprus. Any proof helping to establish the identification of this fruit will come naturally with greater weight from Cyprus, the home of Aphrodite. In Cyprus at the present day, in early summer, almost every garden has trees laden with τὰ χρυσόμηλα, "golden apples," and the bazaars of the towns are filled with the fragrant fruit. The modern Greek name for apricot is τὸ βερύκοκκον, but the Cypriote still calls it by the ancient name τὸ χρυσόμηλο(ν), since he knows no other; thus carrying the mind back to the distant past when Cyprus was the garden of the Eastern Mediterranean, and fit to be the favourite residence of the Goddess of Beauty.'

In judging of the claims of these two fruits, it must be admitted that the Arabic name for the apple is nearly identical with the Hebrew, while the apricot is called by the Persian name of *mush-mush*. But the apple cannot be said to be one of the choicer or more conspicuous trees or fruits of Palestine, nor, compared with others of its tribe, does it seem to warrant the implied compliment, 'As the apple tree among the trees of the wood, so is my beloved among the sons;' whereas the apricot was called by the Persians 'the seed of the sun,' and is reckoned as among the best of Syrian fruits in the Damascus markets at the present day. The balance of probability therefore seems to favour the apricot as the 'apple' of the Old Testament.

This fruit gave names to two towns or villages of Palestine, one in the highlands of Judah, the other in the territory of Ephraim (Josh. xv. 53; xvi. 8). A descendant of Caleb also bore the same name (1 Chron. ii. 43).

CHESNUT (see previous Chapter).

DATE PALM (Heb. תָּמָר *tamar*, Gk. *φοῖνιξ*).

'Thy stature is like to a *palm* tree.'—Song of Solomon vii. 7.

Of those groups of trees which impress a definite character upon scenery, Humboldt places first the extensive family of the palms, 'the loftiest and most stately of all vegetable forms. To these, above all other trees, the prize of beauty has always been awarded by every nation, and it was from the Asiatic palm-world or the adjacent countries that human civilization sent forth the first rays of its early dawn. Marked with rings, and not unfrequently armed with thorns, the tall and slender shaft of the graceful tree rears on high its crown of shining, fan-like or pinnated leaves, which are often curled like those of some grapes.'

Above a thousand different species of palm have been enumerated by botanists, and some of these constitute the food-plants of whole tribes and nations. The cocoa-nut palm, the Mauritia palm of the Orinoco, and the date palm of Northern Africa and Western Asia, are examples. South America yields the most beautiful forms of this tree; but for combined grace and utility the DATE PALM of Egypt, Arabia, and Palestine merits all the praises that in ancient and modern days have been bestowed upon it.

Palms flourish best in the tropics, but the date palm (*Phœnix dactylifera*) lives as far north as those latitudes where the mean temperature is from 59° to 62° Fahr. Hence it is cultivated with success in the south of Spain and in Italy, but is not indigenous there, and the fruit seldom reaches perfection. Even in Cyprus, Mrs.

Scott-Stevenson states that only in one district is the date palm fruitful, though the tree is not uncommon.

It is the chief ornament of the Sinaitic peninsula, and its presence renders habitable by man whole districts that would otherwise be inhospitable wastes. In the sandy plains of North Africa and the Arabian Desert oases of palm trees occur, such as those of Elim, where the Israelite hosts encamped shortly after quitting Egypt (Exod. xv. 27).

The palm, though not mentioned so frequently in Scripture as the vine, or even as the olive or fig tree, is named in no less than fifteen different books of the Old and New Testaments, beside giving names to persons and places (Tamar, Baal-tamar, Hazezon-tamar) and a title to Jericho, 'the city of palm trees' (see 1 Chron. ii. 4; iii. 9; Judges xx. 33; Gen. xiv. 7; Deut. xxxiv. 3). Its former luxuriance and present rarity in that district have been already noticed (Chapter I). Phœnicia, it will be remembered, was so named by the Greeks from its palm trees (*phœnix*), and the date palm still grows in the warm maritime plain. It occurs also in sheltered spots among the hilly regions, where certainly it was more common in Biblical times. Nothing can more strikingly exemplify the severity of the vicissitudes through which the country has passed than the entire disappearance of that magnificent palm grove which made Jericho famous, and whose praises were sung, not only by Jews like Josephus, but also by foreigners like Strabo, Tacitus, and Pliny[1]. To the Sidonians, the Maccabees, and later

[1] The gradual disappearance of this forest of palms is thus traced by the late Rev. Edward Wilton in his valuable but little known work, *The Negeb or 'South Country' of Scripture* (Macmillan, 1863):—'Dr. Robinson shows, from the evidence of Arculf, that these groves were in existence at the close of the seventh century. But they may be traced four centuries

SINAITIC PALMS.

still to the Romans, the land was typified on coins by the figure of a palm tree; and the city of Tadmor or Palmyra is supposed to have been so named for a similar reason.

The date palm, both in its wild and cultivated condition, has been so often figured and described that the chief points relating to its structure, appearance and habits may be considered as well known even to the general reader. A visit to the Botanical Gardens at Kew will give a more accurate and impressive conception of the beauty and variety of the *Palmaceæ* than either verbal or pictorial description. The practical uses of the date palm to the Arabs and other inhabitants of the regions in which it grows are almost innumerable. Not only is the fruit eaten raw or made into a conserve, but the young leaves, the soft interior of the immature stem, and the stamen-bearing flowers, are made available for food; while the sap is drunk as milk, and a spirituous beverage is distilled from it. The timber is valued for its durability, and the fibres of the leaves are converted into mats and baskets, sails and cordage. Even the hard kernels of the date are soaked in water and then ground up as food for camels[1].

Turning now to the Scripture references to the date

later; for Sæwulf (A.D. 1102) found them still flourishing. The process of decay or destruction must have commenced soon after (not a little facilitated probably by the Crusades); for Sir John Maundeville (A.D. 1322), whose love of the marvellous would not have suffered him to be silent respecting them, if still existing, merely says of Jericho, "it is now destroyed, and is but a little village." Exactly 400 years later, Dr. Shaw (1722) tells us "there are several" palm trees at Jericho. Time and neglect, however, were slowly but surely doing their work. In 1838 Dr. Robinson found "only one solitary palm tree lingering in all the plain;" and even "of this" (writes Dr. Macgowan in 1847) "nothing remains except the mutilated trunk, stripped of its crown of leaves."

[1] The Arabs declare that the palm tree has as many uses as there are days in the year.

palm, we find that it was formerly, as it is now in the East, the embodiment of grace and beauty, as the cedar was of strength and grandeur. Its lofty stature is referred to in the Song of Solomon vii. 7, and Jer. x. 5; its verdure and fruitfulness, even to old age, in Psalm xcii. 12, 14. In Joel i. 12 it is spoken of among the most precious of fruit-bearing trees, while its beauty seems to have rendered it a favourite object of artistic design. It was freely introduced into the carved work of Solomon's Temple, and appears among the ornaments of the mystic edifice seen in vision by the prophet Ezekiel (1 Kings vi. 29; vii. 36; Ezek. xl. 26, 37, &c.)[1].

Ecclesiastically, the palm leaf was first used at the annual Feast of Tabernacles (Lev. xxiii. 40), and after the settlement of the Hebrews in Palestine these leaves were obtained from the Mount of Olives (Neh. viii. 15); and that the tree grew among the southern hills we learn from the mention of 'the palm tree of Deborah, between Ramah and Bethel, in Mount Ephraim' (Judg. iv. 5). The entry of our Lord into Jerusalem was signalized by the strewing of palm leaves in His triumphal path (John xii. 13), and the Romish Church annually commemorates the event, large numbers of palm trees being cultivated in Italy, Spain, and the south of France for the ceremonial on Palm Sunday. The long pinnated or winged leaves, reaching a length of twelve feet or more, form a striking crown to the tall and graceful stem of the cultivated palm; in the wild state the withered remains of each circlet of leaves adhere to the trunk, giving it a rugged appearance.

In Jewish, Classic, and Christian symbolism, the palm

[1] The palm appears also in the few relics of Jewish art which have been discovered in recent times.

leaf is the emblem of victory (Rev. vii. 9), and it occurs as a frequent and expressive sign above the resting-places of the persecuted believers who lived and died in the subterranean catacombs of Rome.

The oases of Elim in the wilderness of the wanderings (Exod. xv. 27) derived its name from the 'trees' (אֵילִם *elim*), which we know to have been date palms. It is possible that Elath or Eloth, a port in the Gulf of Akabah (2 Kings xiv. 22, &c.), may have been so called from a similar grove, as palms are still found in that locality.

Among the fruit-trees cultivated by the ancient Egyptians, 'palms,' says Sir G. Wilkinson, 'held the first rank, as well from their abundance as from their great utility. The fruit constituted a principal part of their food, both in the month of August, when it was gathered fresh from the trees, and at other seasons of the year, when it was used in a preserved state.' Palm wine, used in embalming, was probably made by tapping the tree, as now, and its wood and fibres were used in various ways for beams, tables, cordage, mats, baskets, brushes, ropes, and even toy-balls for children. The timber of the palms, however, is not adapted for the purposes of the carpenter or cabinet-maker, the wood being hardest at the outside and softest at the heart—a characteristic of that great division of plants which have straight-veined leaves.

Sonnini, in his *Travels in Egypt*, describes 'a forest of palms and fruit trees' round Dendera, and 'a district covered with date trees' near Djebel-el-Zeer in Upper Egypt. He also mentions a spirit extracted from dates. The dates of Babylon were celebrated in ancient times for their especial excellence, and were reserved only for

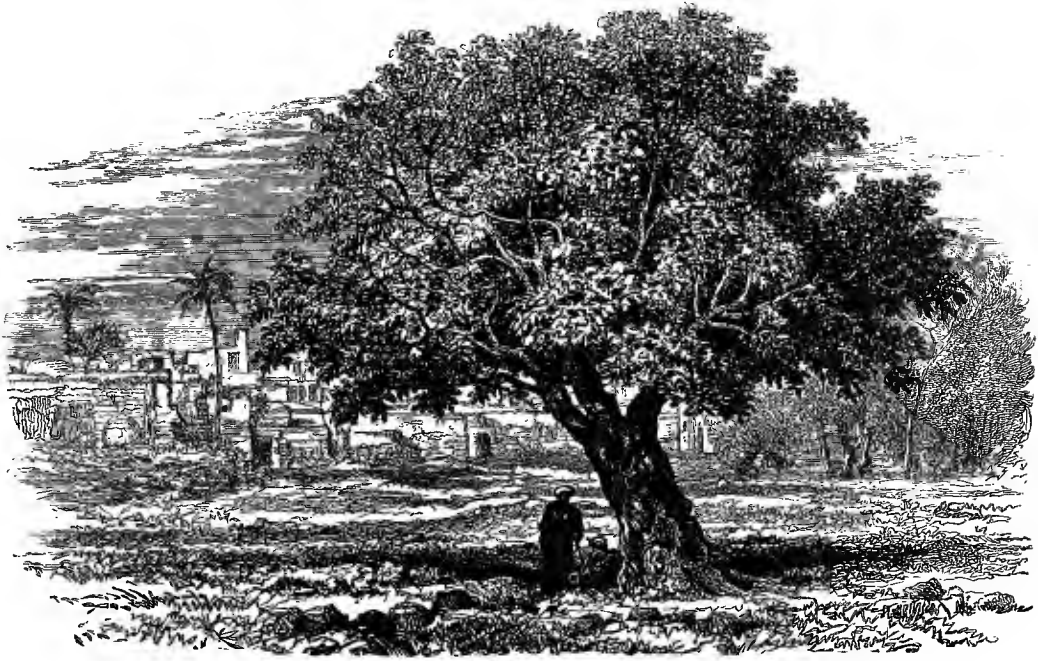
royal use[1]. Pliny mentions many varieties of this valued fruit, and Arab writers declare that there were three hundred names for the tree -- an Oriental hyperbole corresponding to the statement above-quoted as to its practical applications.

FIG TREE (Heb. תְּאֵנָה *teenah*).

'Now learn a parable of the *fig tree*.'—Matt. xxiv. 32.

Our translators were on fairly secure ground when dealing with the chief fruit-trees mentioned in the Bible; and there is no uncertainty as to the identification of such vegetable princes as the Palm, the Olive, and the FIG TREE. From the frequent and varied references to the last-named tree we might safely infer its wide distribution and striking abundance in former times; but even now 'it grows wild in fissures of the rocks from Lebanon to the south of the Dead Sea,' and is cultivated in every available spot. From the source of the Jordan to the Judean hills, and from Moab to the shores of the Mediterranean, it spreads forth its broad and glossy foliage in vineyards, or among mulberries and pomegranates; and men, as of old, sit beneath its grateful shade. Or it grows green by the wayside, as when an unfruitful fig tree was made by the Great Teacher an affecting emblem of an unbelieving people. A fine grove occurs in the Wady et Tîn, or 'Valley of Figs,' near the site of the ancient Bethel.

[1] 'The art of cultivating [the date-palm] was first discovered and practised, according to Ritter, by the Nabatheans of Babylonia in the plains bordering the Lower Euphrates and Tigris. In that region forests of fruit-bearing palms stretched continuously for miles; there the tree almost sufficed for the necessities of life. From this region the cultivated date-palm spread to Jericho, Phœnicia, the Ælanitic Gulf in the Red Sea, and elsewhere.' (Hehn, *Wanderings of Plants and Animals*, p. 203.) The palm appears on the Assyrian monuments; and, according to Strabo, was the chief *timber* tree of Babylonia (Rawlinson).



AN ORIENTAL FIG TREE.

The common fig (*Ficus carica*) belongs to a genus of plants which comprises many remarkable members of the vegetable kingdom; such as the banyan, the peepul or sacred fig of India, the india-rubber tree, and the Australian fig. Most of the true figs secrete a milky juice, which is usually acid, and in some species highly poisonous. In the edible kinds the objectionable qualities are removed by cooking.

The order (*Urticaceæ*) includes the elm and the mulberry, as well as herbaceous plants like the hemp and nettle.

In Palestine, the figs are represented only by the sycomore-fig (described on pp. 121–124) and the edible fig of commerce. This species has a wide geographical range, extending from the south of Europe to the north of India; growing also in Northern Africa, where it has been known and valued from time immemorial, as the monuments of Egypt conclusively show. The Biblical references to this tree commence with the garden of Eden, and end with the visions of the Apocalypse. Nearly all of them, however, illustrate either the frequency of its occurrence throughout Palestine, the value of its shade, or the importance and excellence of its fruit. The spies sent through the country by the order of Moses brought back samples of grapes, pomegranates, and figs, as characteristic productions; and these are again enumerated in the promise of Canaan (Numb. xiii. 23; Deut. viii. 8). In Jotham's parable of the trees, the olive, fig, and vine are selected as representatives (Judg. ix. 8–13). Prophets foretell their destruction, and lament the desolation when accomplished. Thus Jeremiah: 'They (the Babylonians) shall eat up thy vines and thy fig trees' (ch. v. 17);

'There shall be no grapes on the vine, nor figs on the fig tree' (ch. viii. 13). Hosea: 'I will destroy her vines and her fig trees, and I will make them a forest' (ch. ii. 12). Joel: 'He hath laid my vine waste, and barked my fig tree;' 'The vine is dried up, and the fig tree languisheth' (ch. i. 7, 12). But in promises of pardon and restored prosperity the fig and other trees are to 'yield their strength' (Joel ii. 22); and, as in Solomon's halcyon reign (1 Kings iv. 25), every man is to 'sit under his vine and fig tree' (Micah iv. 4; Zech. iii. 10). For disobedience the locusts had attacked the olive-yards and vine-yards, and gnawed the fig trees; but with repentance and reformation, vegetable life was to be renewed (Joel i. 4; ii. 25; Amos iv. 9; Haggai ii. 17, 19). Yet amidst all vicissitudes in external nature, he who has faith in God will rejoice in Him, 'though the fig tree shall not blossom, neither shall fruit be in the vine' (Habak. iii. 17).

In a vision of 'two baskets of figs,' recorded by Jeremiah, the captives of Judah are typified by the better sample of the fruit (ch. xxiv. 1–7); but the emblem is more specially used by our Lord, in whose teaching the barren fig tree points directly to the Jewish nation (Luke xiii. 6; Mark xi. 13, &c.). In the Gospel narrative we also find such incidental references as the single fig trees at Bethany and Cana, and the village of 'Bethphage,' signifying 'house of green figs' (Luke xix. 29; John i. 50; Matt. xxi. 19). We find also Scripture allusions to 'green' or unripe figs, and to the 'first-ripe' figs of the early summer (Song Sol. ii. 13; Jer. xxiv. 2), both of which were easily shaken from the tree (Nahum iii. 12; Rev. vi. 13). The first-ripe fig was esteemed a delicacy, as we may infer from the Revised Version of

Isaiah xxviii. 4: 'as the first-ripe fig before the summer, which when he that looketh upon it seeth, while it is yet in his hand he eateth it up.' As a matter of fact, the fig tree, under favourable conditions, bears as many as three crops of fruit in the year: viz., the *Early*, appearing about March or April, and ripening in June; the *Summer*, appearing in June, and ripening in August; and the *Winter*, appearing in August, but ripening after the fall of the leaf. These latter often remain on the tree through the winter months.

The fruit of this productive tree was not only, as now, a most important article of food when raw, but was also preserved by being pressed into cakes. In this form, figs were brought by Abigail to David and his followers; and also by the northern tribes to the festival at Hebron (1 Sam. xxv. 18; 1 Chron. xii. 40). The Egyptian captured by David's men in their pursuit of the marauding Amalekites had cakes of figs given to him as a restorative (1 Sam. xxx. 12); and it is worthy of notice that, according to the testimony of Pliny, who described nearly thirty varieties of this valued fruit, 'figs are the best food that can be taken by those who are brought low by long sickness, and are on the recovery.'

The employment of figs as a medicament is illustrated in the narrative of King Hezekiah's illness (2 Kings xx. 7, &c.), which accords with both ancient and modern applications of this useful fruit.

The Egyptians were fond of cultivating the fig tree, which, as in the imagery of our Lord's parable, is represented on the monuments as growing in the vineyards; and the fruit of both the common species and of the inferior sycomore-fig tree was deemed a fit present to the

gods. Among the Hebrews, it is scarcely needful to state, first-fruits of all kinds were brought as thank-offerings.

It is uncertain when the edible fig was introduced into this country; whether by the Romans, who set much value on the fruit, or as late as the sixteenth century. In favourable spots in the south of England the sweet produce comes to perfection, and far surpasses in delicacy of flavour the dried specimens imported from Turkey, Egypt, and the Mediterranean; but it often grows in gardens to the size of a tall shrub, being cultivated for the sake of its agreeable foliage. The wood is spongy and oily, though durable; and therefore of little value. Horace, in one of his coarsest Satires, speaks of a fragment which he calls *inutile lignum*, and says, derisively, that the carpenter, being unable to use it for a bench, made it into a god[1],—a passage which recalls the fine description of idol-makers in Isaiah xliv. 9–17. One of the poet's commentators quotes a Greek proverb, 'As brittle as a prop of fig-tree wood;' and the same people had a phrase, 'figgy men,' equivalent to 'weak fellows.'

It may be added that the fruit of the fig tree is one of those which, as modern research has so remarkably shown, owe their fertility to the agency of insects. It consists of an enlarged and fleshy receptacle, within which the small and insignificant flowers are clustered, leaving a small opening at the broader extremity, where the insect is enabled to enter and disperse the pollen or fertilizing dust. The flowers are succeeded by the tiny seed-like fruits with which the interior of the fig of commerce is lined.

The Greeks forbade the exportation of figs from Attica; and any one who gave evidence that this law

[1] *Sat.* lib. i. 8.

had been broken was called συκοφάντης, a 'fig-informer;' whence our modern words 'sycophant' and 'sycophancy.'

An old tradition asserted that it was on a fig tree in the neighbourhood of Jerusalem that Judas hanged himself, but this doubtful celebrity was by others attributed to the *Cercis siliquastrum*, a red-flowered leguminous tree, growing in Palestine and the South of Europe.

Husks (Gk. κεράτια).

'He would fain have filled his belly with the *husks* that the swine did eat.'—Luke xv. 16.

Among the minor fruit-trees of Palestine the Carob or locust tree (*Ceratonia siliqua*) is widely distributed and admired for its dark and shining leaves. It is common in Galilee, in the plain of Sharon and around Acre, and in the ravines of Lebanon and the trans-Jordanic hills. It is specially conspicuous near Beirût, but is not found on the higher and colder situations. It is a leguminous or pod-bearing plant, its long brown beans not only being ground up for cattle and swine, but, on account of their eminently nutritious properties, both pod and seeds are eaten by the poor. The Arabs call them *kharûb*, and there can be little doubt that they represent the 'husks' with which the Prodigal Son was ready to satisfy the cravings of hunger.

The carob is also called the 'locust' and 'St. John Baptist's tree,' from an erroneous idea, adopted by some of the Christian fathers, that the pods or 'husks' formed the food of Christ's great forerunner, whose 'meat was *locusts* and wild honey.' A more accurate knowledge of Oriental foods has removed the supposed difficulty attached to the simpler interpretation.

The tree is abundant in Malta, and in Cyprus, where it reaches enormous dimensions and forms groves; it is found, in fact, in all the Mediterranean area. A confection is made of the pulpy interior of the pods, which Pliny long since described as 'very sweet;' and which are not unfrequently eaten, though the entire bean is chiefly used (as in Palestine) for cattle and for horses. It is still exported from Syria to Alexandria, and so into Europe, in large quantities. Dr. Daubeny considers that the carob was thus introduced into Italy. Though not a native of Egypt, it appears from the monuments to have been cultivated in the gardens of that enterprising race.

NUTS (Heb. בָּטְנִים *botnim*, אֱגוֹז *egoz*).

'Carry down the man a present, . . . *nuts* (*botnim*) and almonds.'—Gen. xliii. 11.

'I went down into the garden of *nuts* (*egoz*).'—Song of Solomon vi. 11.

The above brief passages constitute the sole references in Scripture to two important trees—the PISTACHIA and the familiar WALNUT, the edible fruits of which constitute articles of commerce in both Western Asia and Southern and Middle Europe.

The PISTACHIA (*P. vera*) belongs to the terebinth order of plants (*Terebinthaceæ*), and is indigenous to Palestine and Syria, where it is extensively cultivated for the sake of its nuts, which are exported from Aleppo and the ports of the Levant. The tree grows also in Southern Europe, where it has become naturalized for many centuries. The oily almond-like kernels are eaten as a dessert and made into a sweetmeat. There is little doubt that these were the 'nuts' which formed part of the present forwarded to his unknown son by the Hebrew patriarch, the pistachia being a tree of the rocky high-

lands, and not growing in the valley of the Nile. The nuts were highly valued by the ancients, both for food and as a stomachic; and also as 'an antidote to the bite of serpents.' It is possible that the Gadite city, *Betonim* (Josh. xiii. 26), may have derived its name from these trees.

The WALNUT (*Juglans regia*) is too familiar an object to need description either of its general appearance or of the nature and value of its fruit or timber. It may suffice to remark that it is widely diffused, from the Himalayas through China, Persia, Northern Palestine, and the southern and central parts of Europe. It was introduced into England at least as early as the sixteenth century, and was formerly cultivated for the sake of its light, compact, and fine-grained wood; but since the introduction of mahogany and other foreign timbers, it has been valued chiefly for its wholesome and nutritious fruit. It is only, however, in the warmer parts of our island, or in very sheltered spots, that this tree ripens perfectly. On the Continent, not only are the nuts of vast importance as an article of diet, but the wood is largely used for gun-stocks, and an oil of superior quality is extracted from the seeds. A fermented spirit is obtained from the sap, and a brown dye from the husks and roots. Formerly the leaves and fruit were turned to account medicinally, as Cowley's quaint lines declare:—

'On barren scalps she makes fresh honours grow;
Her timber is for various uses good;
The carver she supplies with useful wood,
She makes the painter's fading colours last;
A table she affords us, and repast:
E'en while we feast, her oil our lamp supplies;
The rankest poison by her virtue dies;
The mad dog's foam and taint of raging skies.
The Pontic king who lived where poisons grew,
Skilful in antidotes, her virtues knew.'

This last allusion is to the celebrated Mithridates, who carried with him a secret prescription against poison, consisting of a conserve of walnut-kernels, figs, and rue. Pliny says that the Greeks called the fruit *Persian* and *Basilicon*, whence he infers it to have been brought from Persia. The Romans called it *juglans* or 'Jupiter's nut' (*Jovis glans*). Cicero and Virgil both mention this tree; and the latter tells his husbandman to expect a good wheat harvest if 'the nut blossom plentifully and bend down its odoriferous branches[1].'

It would seem that Solomon planted these fine trees in his gardens near Jerusalem, to which reference has already been made; and probably they were well known in later days, if not at an earlier period, although the fact is not elsewhere hinted at in Scripture. At the present time the walnut is cultivated in 'all the glens and lower slopes of Lebanon and Hermon.' It grows still in different spots in Galilee, and Josephus speaks of 'old trees' in his day 'near the Lake of Gennesareth.' Dr. Thomson states that the wood is used for window-lattices in Damascus.

OLIVE (Heb. זַיִת *zayith*).

OLIVE OIL (Heb. שֶׁמֶן *shemen*, יִצְהָר *yitshar*, מְשַׁח *meshach*).

'His branches shall spread, and his beauty shall be as the *olive tree*.'—Hosea xiv. 6.

'A land of *oil olive* and honey.'—Deut. viii. 8.

Regarded by the nations of the earth as a symbol of peace, reverenced by the Greeks as the special gift of the Goddess of Wisdom to man, and celebrated throughout the sacred volume for its beauty and its fruitfulness, it is scarcely an exaggeration to entitle the OLIVE,

[1] *Georg.* lib. i. 187–192.

as did the old Roman agriculturist, 'the first of trees[1].' Its geographical area comprises the countries bordering the Mediterranean; but while in Egypt it is comparatively poor, it flourishes in Palestine to an extent and with a luxuriance which make it, to the eye of the modern traveller, the characteristic tree of Israel's heritage. There, in the calcareous and often rocky soil, the olive strikes deep its roots, lifts its gnarled stem, and spreads forth its fresh grey-green foliage, with a beauty all its own. Only on the bleak mountains, and in the hot Jordan valley, is it absent. Elsewhere it is cultivated with increasing care, and would be extensively planted but for the oppressive tax laid upon every tree, which practically prohibits an investment of labour and capital for a profit so distant, the olive not becoming fruitful until the age of twelve or fourteen years. It grows, as in former days, around Jerusalem, and studs Mount Olivet, though in diminished numbers; it creeps along the hill-sides, and in the warm plains and sheltered valleys almost literally fulfils the ancient declarations:— 'The rock poured me out rivers of oil;' 'He made him to suck oil out of the flinty rock' (Job xxix. 6; Deut. xxxii. 13). In the north, olive-yards spread out amidst the valleys of Lebanon and Galilee. The rich coast-plains and the valleys that open into them recall the promise to Asher, 'Let him dip his foot in oil' (Deut. xxxiii. 24). On the east, Gilead and Bashan retain their olive plantations, and the tree grows wild in the gorges and on the hill-sides. The 'fat valleys' of Ephraim (Isaiah xxviii. 1) still prove how 'pleasant' was the abode of that once-favoured tribe (Hosea ix. 13). Ebal, Gerizim, and Tabor; Carmel and Sharon; Ramah,

[1] Columella, lib. iv.

Hebron and Bethlehem,—are adorned with the labour of the olive; and as when the sorrowing Saviour 'knelt to pray,' the 'olive-shade' still overhangs the Garden of

OLIVE TREES IN THE GARDEN OF GETHSEMANE.

Gethsemane. We know that the ruthless hands of the Roman soldiery spared no available tree in or near the beleaguered city; yet the 'aged olives' which so many

modern travellers have described may be the direct descendants of those which sheltered the Son of Man in His hour of agony; since this vigorous tree will put forth new shoots after the stem has been lopped. In the island of Cyprus, where the tree abounds, an aged trunk, so decayed that scarcely more than the outer ring of bark appears to be left, will renew its youth by sending down roots, banyan-like, from the branches. These invest the old stem, and form, as it were, a new one.

Concerning the olives now remaining in the Garden of Gethsemane, Lamartine thus characteristically wrote:—

'A low wall of stones, without cement, surrounds this field, and eight olive trees, standing at about twenty or thirty paces distance from each other, nearly cover it with their shade. These olive trees are amongst the largest of their species I have ever seen: tradition makes their age mount to the era of the incarnate God, who is said to have chosen them to conceal His divine agonies. Their appearance might, if necessary confirm the tradition which venerates them: their immense roots, in the growth of ages, have lifted up the earth and stones which covered them, and rising many feet above the surface of the soil, offer to the pilgrim natural benches, upon which he may kneel, or sit down to collect the holy thoughts which descend from their silent heads. A trunk, knotted, channelled, hollowed, as with the deep wrinkles of age, rises like a large pillar over these groups of roots: and as if overwhelmed and bowed down by the weight of its days, it inclines to the right or left, leaving in a pendent position its large interlaced, but once horizontal branches, which the axe has a hundred times shortened to restore

their youth. These old and weighty branches bending over the trunk bear other younger ones, which rose a little towards the sky, and had produced a few shoots, one or two years old, crowned by bunches of leaves, and darkened by little blue olives, which fall like celestial relics at the feet of the Christian traveller.'

Such is the olive tree in modern Syria; and the remains of oil-presses in parts of the country where the tree is no longer cultivated, together with more than a hundred and seventy references in the Bible to olives and oil, testify to the abundance and value of these productions in ancient times. The modern Arabs have a curious proverb: 'The Jews builded; the Greeks planted; and the Turks destroy.' In reference to the second assertion, they point to such ancient olive plantations as are formed in regular rows, as the work of the Greeks. Miss Rogers (*Domestic Life in Palestine*), who quotes this saying, observes that the contrast is striking between these grey avenues and 'the wild wood-like picturesqueness of younger olive plantations now fruitful and flourishing, as well as to the still more ancient trees now falling to decay.'

The olive is the chief representative of the order *Oleaceæ*. It is a comparatively small tree, growing to a height of about twenty feet; the leaves are oblong, and their under-surface is hoary. The blossoms consist of small, whitish, and fragrant clusters produced in great profusion. The fruit is soft and oily, of a violet colour when ripe, and enclosing a hard kernel; unlike most other fruits, it is the fleshy exterior and not the seed which yields the oil. This rich and valuable juice is obtained by pressure. 'Virgin oil,' the best of which comes to us from Nice and Genoa, is that of the first-ripe fruit;

further pressure gives the ordinary quality; and a still inferior kind, used only in the manufacture of soap, is yielded by boiling and squeezing the husk. From ten to fifteen gallons are obtained from each full-grown tree; but the olive does not reach its maturity much before its fortieth year. The fruit is exported from France, Spain, and Portugal, preserved in brine. The wood is fine-grained, and capable of taking a good polish; it is still employed in Palestine for cabinet-work. As already explained (see OIL TREE in Chapter II), Solomon's carved cherubim appear to have been made of the wood of the *Eleagnus*, though rendered 'olive tree' by our English translators; but it is unlikely that so fine-grained a material as olive-wood should have been overlooked by the Hebrew carpenters. In Cyprus, an olive-branch is often thrown upon the ignited charcoal of the braziers used for warming rooms, so that it may diffuse an agreeable fragrance through the apartment.

Humboldt observes that the olive tree flourishes best between lat. 36° and 44°, but cold is more fatal to it than heat. It has been known in Greece from time immemorial, and is mentioned by Homer; it was brought thence into Italy, we are told, in the reign of the first Tarquin, and it was introduced into our own island in the reign of Elizabeth.

Two points of special value attach to this fruitful tree; the one is its power of flourishing in a poor soil, the other its slight demands on the care of the husbandman. Both Virgil and Columella advert to these advantages[1]. The prophet Habakkuk, in a passage already quoted, says that even if 'the labour of the olive'—generally so soon rewarded by a plentiful crop—should 'fail,' he still

[1] Virg. *Georg.* lib. ii. 179–181, 420; Columella, lib. iv.

will rejoice in God (ch. iii. 17, 18); and the earlier references to 'oil out of the flinty rock' have been cited above.

The passages in which 'corn, wine, and oil' are mentioned as the representative productions of the land are too numerous to quote. When prosperity is illustrated or promised, the oil-vats 'overflow' and a blessing comes down upon the land, so that the rich produce of vineyards and olive-yards are gathered in their season. But when judgment is foretold or described, the olive 'casts its fruit' and the oil 'languisheth' (Deut. vii. 13; xxviii. 40; Joel i. 10, &c.). The olive is said to grow best when at no great distance from the sea, and Solomon's chief plantations appear to have been near the coast-plain, on the 'Shephelah' or low hills between it and the central highlands (1 Chron. xxvii. 28). The fresh verdure and fruitfulness of the tree render it a fit emblem of the righteous man (Psalm lii. 8; Hosea xiv. 6), and the young plants shooting up from the soil around the parent tree are graceful types of the children of his household (Psalm cxxviii. 3). The patriarch Eliphaz says of the wicked, 'He shall cast off his flower as the olive' (Job xv. 33), alluding to the profusion with which the blossoms sometimes fall from the tree.

The gathering of the fruit was accomplished by beating the branches, by which means some olives were always left out of easy reach. This is 'the shaking of the olive' alluded to by the prophet Isaiah: 'two or three berries in the top of the uppermost bough, four or five in the outmost fruitful branches thereof' (ch. xvii. 6). Although 'the labour of the olive' is so light, it is not wholly unnecessary; the tree has to be grafted in its wild state, or the fruit is small and worthless. St. Paul uses this

fact with striking force in showing the obligations of the Gentiles to the true Israel (Rom. xi. 17, &c.), showing that it is 'contrary to nature' to graft a wild scion upon a good stock.

Of the varied applications of the oil Scripture affords abundant examples. It formed the basis of most ointments and many perfumes. It was used privately for refreshment of the body, and publicly in official ceremonies. Kings, priests, and prophets were anointed with oil, and even the name of Messiah — Christ — originated with this custom. It was offered in sacrifices, and it supplied the sacred lamp of the Tabernacle and Temple as well as the humbler means of illumination in private dwellings. It was food and medicine, and ministered alike to the enjoyments of the rich and the sustenance of the poor. A few references are given as illustrations: Gen. xxviii. 18; Exod. xxvii. 20; xxviii. 41; Lev. ii. 1–7; 1 Sam. x. 1; 1 Kings xix. 16; Matt. xxv. 3; Mark vi. 13; Luke vii. 46 and x. 34: also Prov. xxvii. 9; Eccles. x. 1; Isaiah i. 6 (oil is here and in other similar passages rendered 'ointment'). It is a significant proof of the abounding fruitfulness and value of this tree, that in the 'Ten Precepts' ascribed by the Jewish Rabbis to Joshua, one of them, which allows a branch to be taken from a tree, specially excepts 'the boughs of the olive.' In Old Testament symbolism the olive denotes outward prosperity and rejoicing; but in the New it is emblematic of that

'heavenly unction from above'

of which the Jewish anointing of priests and kings was the feeble though fitting type.

Among classical nations the olive crown and the olive branch symbolized respectively triumph and peace.

Victors at the Olympic games received a wild-olive wreath ; and at the Pan-Athenaic festival, held in Athens in honour of Minerva, the producer of the olive tree, the aged men carried olive branches to the temple, and the successful competitors were rewarded with a vase of sacred oil. So also the Egyptian soldiers, after a successful campaign, carried twigs of olive in procession and offered them on the altars of the gods. In modern Cyprus a sprig of olive is hung over the doors of the houses on New Year's Day, as an omen of good-fortune.

Pomegranate (Heb. רִמּוֹן *rimmon*).

'A land of . . . *pomegranates*.'—Deut. viii. 8.

This beautiful shrub appears at an early date in the history of food, art, and commerce. It was known as a favourite fruit in Egypt before the Exodus, for the Israelites murmured because the Idumean wilderness was 'no place of seed, or of figs, or of vines, or of pomegranates' (Numb. xx. 5). The robe of the Jewish high priest had an embroidery of 'pomegranates of blue, and of purple, and of scarlet, round about the hem thereof;' and the same device appears again on the carved work of the pillars for the porch of the first Temple (Exod. xxviii. 33, 34; 1 Kings vii. 18, 20). The old Greek writers on botany and medicine, Dioscorides, Theophrastus, and Hippocrates, speak of the rind of the fruit being used as an astringent, and the bark of the root as an anthelmintic, a property known at the present day in both the East and West Indies. By the Greeks the plant was called ῥόα or ῥοιά, and is supposed to have given its name to the Isle of Rhodes. The Romans called it *Punica* or *Punica malum*, having obtained it

from Carthage. In several of the archaic sculptures from Lycia in the British Museum, deities are represented holding the flower or the fruit of the pomegranate in their hands, probably as emblems of fertility. So in the Assyrian bas-reliefs, attendants on Sennacherib carry pomegranates and other fruit.

The POMEGRANATE (*Punica granatum* of modern botanists) is a beautiful shrub, with dark and shining leaves and bell-shaped flowers, having both petals and calyx of a deep-red colour. In the autumn it yields a ruddy fruit about the size of an orange, filled with a delicious pulp, in which the semi-transparent seeds lie in rows. Dr. Thomson says that some of the pomegranates of Jaffa are as large as an ostrich egg. They ripen in September or October, and if hung up, will keep good through the winter.

The pomegranate was included in the promise of fruit-bearing trees to the Israelites (Deut. viii. 8), and there is no doubt that it was formerly abundant in Palestine. It seems to be indigenous in Gilead, and is cultivated throughout the land, from Lebanon to Jericho. Dr. Thomson mentions a variety in the north which is quite black externally, but the usual tint is reddish, as may be inferred from the Oriental compliment repeated in Song of Solomon iv. 3; vi. 7.

These shrubs often grow with fig trees near wells, while abounding in the gardens in and near the different towns and villages. An 'orchard of pomegranates with pleasant fruits,' and a 'garden of walnuts' with 'vines' and 'pomegranates,' are referred to in the same highly-coloured poem (Song iv. 13; vi. 11; vii. 12). As of old, 'spiced wine of the pomegranate' (ch. viii. 2) is made from the fermented juice, which is also drunk as a

cooling beverage; and the seeds are served as a dessert, moistened with wine and sprinkled with sugar. It still grows in the once luxuriant Gardens of Solomon. The prophet Joel bewails the 'withering' of the pomegranate, while Haggai promises its increase to the remnant of the Captivity (Joel i. 12; Haggai ii. 19).

This tree gave its name to several cities, as Rimmon or Ain Rimmon ('spring of the pomegranate'), now called Um-er-Rumâmîn ('mother of pomegranates'), in the inheritance of Simeon on the south (Josh. xix. 7); Rimmon or Remmon in Zebulon in the north (ver. 13); and the 'rock of Rimmon,' to which the defeated Benjamites fled (Judg. xx. 45). Also to one of the stations of the Israelites in the wilderness—Rimmon-parez (Numb. xxxiii. 19). Saul encamped 'under a pomegranate tree,' which must have been near to the Rock of Rimmon (1 Sam. xiv. 2).

The Egyptians prized and cultivated the pomegranate in their gardens; and, as already hinted, it was well known to the ancients. Pliny mentions varieties of the fruit, the use of the blossoms for dyeing, of the rind for tanning leather (as now in Morocco), and of both fruit and flowers in medicine. Grenada in Spain is supposed to have derived its name from the *pomum granatum* or 'seeded fruit,' and the arms of the province are said to be 'a split pomegranate.'

The tree flourishes in the West India islands, into which it was long since introduced; but its native area extends from the Himalayas to the Caucasus.

The pomegranate is too delicate a plant for any but the warmest parts of our own island; and even there it is cultivated simply for its foliage and flowers. It was introduced about 1548, and is mentioned by Lord Bacon,

who recommends the juice of the sweet varieties of the fruit as a remedy for 'disorders of the liver.' The rind of the fruit, and the root, are still prescribed, in the form of decoctions, by English physicians.

SYCAMINE (Gk. *συκάμινος*).

SYCOMORE (Heb. שִׁקְמָה *shikmah*, Gk. *συκομωραία*).

'Ye might say unto this *sycamine* tree, Be thou plucked up.'—Luke xvii. 6.
'The *sycomore* trees that are in the vale.'—1 Kings x. 27.

In giving almost identical names to the mulberry (*συκάμινος*) and the sycomore-fig (*συκόμορον*), the old Greeks were not led into any serious botanical error; for both the figs and the mulberries are classed by most botanists in the same order of plants. Both terms were derived from *συκῆ*, a fig, and the sycomore is the 'fig-mulberry,' so called from its resemblance to the fig in its fruit and to the mulberry in its leaf. The 'Morea' derives its name from its similarity to the latter in form. But the two names were often used interchangeably, the sycomore-fig being called the 'Egyptian sycamine.' By Latin writers the two kinds were distinguished by different names.

Modern Biblical critics have contended that their predecessors were in error in supposing the 'sycamine' of Luke xvii. 6 to be identical with the 'sycomore' of Luke xix. 4, and of the half-dozen references thereto in the Old Testament. But although, as we have seen, translators of former days fell into many excusable mistakes in matters of scientific identification, two points may fairly be urged in their favour in the present instance. The first is, that in the Septuagint Version of the Old Testament every instance in which the

Hebrew has *shikmin* the Greek has συκάμινος, '*sycamine*,' and not '*sycomore*,' though the fig, and not the mulberry, is certainly intended. St. Luke, therefore, may easily have used the two names interchangeably. The second argument is forcibly put by Dr. Thomson: 'As to the mulberry, it has yet to be shown that it was then known in Palestine; . . . and further, the mulberry is more easily plucked up by the roots than any other tree of the same size in the country, and the thing is oftener done. Hundreds of them are plucked up every year in the vicinity and brought to the city for firewood.'

We conclude then that the word sycamine, instead of being used in its strictly classical sense in the passage above cited, is employed, as in the Old Testament, to denote the SYCOMORE-FIG, and as synonymous with the συκομωραία of Luke xix. 4.

The tree thus alluded to is a true fig, and has no natural alliance with the maple sycamores of Europe and North America, which belong to an order not represented in Palestine. It is the *Ficus sycomorus* of botanists, and is still common in warm and sheltered localities in that country. In Egypt 'Pharaoh's fig trees,' as they are called, are less abundant than formerly, leading some modern travellers to doubt, but quite unnecessarily, whether this was the true 'Egyptian sycomore' of Theophrastus and Dioscorides. Dr. Thomson has given a full description of this noble tree of wayside, valley, and plain. He says it is easily reared, grows rapidly, and becomes a giant in girth, with wide-spreading branches and enormous roots. It bears several crops of figs during the year; but they are small and insipid, compared with those of the better-known *F. carica*. Still, they are gathered, as by the prophet Amos of old,

and sent into the markets for food, chiefly among the poorer classes; among whom alone 'gatherers of sycomore fruit' are to be found (see Amos vii. 14). Children, like Zaccheus, often climb into the branches. In flowers and foliage it closely resembles the common fig, but grows to a greater size, sometimes reaching a height of thirty or forty feet, and a diameter of twenty.

The wood is soft, but durable, and therefore useful; and this fact will serve to explain several Biblical allusions. David, and Solomon after him, had special plantations of sycomores and olives under the care of crown officials, in the 'Shephelah' or low hills near the coast, where the climate is mild and equable (1 Chron. xxvii. 28; 1 Kings x. 27). Solomon in his years of wealth and prosperity made cedar timber as common as sycomore wood. In later times, when national apostasy had brought divine judgments on the land, Ephraim and Samaria are represented as saying, 'in their pride and stoutness of heart,'—'the bricks are fallen down, but we will build with hewn stones: the sycomores are cut down, but we will change them into cedars' (Isaiah ix. 9, 10).

With cedars, pine trees, and oaks, the Hebrews might well regard the wood of the sycomore-fig as an inferior material; just as the fruit was not to be compared to that of the allied species. But in Egypt it was far otherwise. The sycomore yielded the largest planks; it was extensively cultivated for coffins, tables, doors, boxes, tablets, and idols; while as a fruit-tree its figs were valued much more highly than in Palestine, being included in the sacred offerings to the gods, and even selected as the heavenly fruit to be given to the righteous on their admission to eternal happiness. Hence we can

well understand the severity and significance of the visitation mentioned by the Psalmist (lxxviii. 47): 'He destroyed their vines with hail, and their sycomore trees with frost.' Like the statelier palm, the sycamore has almost disappeared from the city of Zaccheus the publican. An aged specimen grows near the Pool of Siloam at Jerusalem, and is said to mark the site of Isaiah's martyrdom.

VINE (Heb. גֶּפֶן *gephen*, Gk. ἄμπελος).

'Thou hast brought a *vine* out of Egypt.'—Psalm lxxx. 8.

If the Olive be the most abundant and characteristic tree of Palestine, the VINE has been from ancient days the chief type of Israel and of Israel's inheritance. On coins and sculptured monuments, on temples and tombs, in the writings of prophets and psalmists, and in the teachings of Him who was emphatically 'the True Vine,' this lowly but fruitful shrub is interwoven with the thought and history of the chosen people. The Syrian climate, soil, and water-supply all favour, in a peculiar degree, the cultivation of the grape; and this branch of industry has been practised in the East from the very dawn of history, as we learn from one of the earliest chapters of the Book of Genesis. In like manner vineyards were planted in Asia Minor and the south of Europe before the days of Homer; while the Egyptian and Assyrian monuments attest their former abundance on the banks of the Nile, and in the great empires of the Farther East. We need not wonder, therefore, that in classic fables the Egyptian Osiris and the Greek Dionysus were credited with the first bestowment of the vine, as Minerva of the olive. It

abounds in Cyprus, some five and thirty square miles of that interesting island being planted with this richest of fruit.

Yet the botanical home of the vine 'must be sought in the regions between Caucasus, Ararat, and Taurus.' 'Here,' says Dr. Royle, 'as well as in the elevated valley of Cashmere, the vine climbs to the top of the loftiest trees, and the grapes are of fine quality and large size, in many places of the intermediate country.' Of its economic uses the same writer concisely adds: 'Every part of the vine was, and still continues to be, highly valued. The sap was at one time used in medicine. . . . When ripe the fruit is everywhere highly esteemed, both fresh and in its dried state as raisins. The juice of the ripe fruit, called *must*, is valued as a pleasant beverage. By fermentation, wine, alcohol, and vinegar are obtained; the lees yield tartar; an oil is sometimes expressed from the seeds; and the ashes of the twigs were formerly valued for their potash.'

Its range is wider than that of the other conspicuous fruit-trees of Palestine; yet it will neither bear extreme heat on the one hand, nor combined cold and damp on the other. In the Eastern hemisphere its limits extend from the equator to latitude 50°, or even higher; in the Western hemisphere it reaches only 40° from the equator. Between 30° and 35°—a region including of course Syria and Palestine—the vine reaches its highest perfection. In Europe, however, the products of the French vineyards are reckoned superior to all others, in quantity and quality.

English vines are mentioned by the Venerable Bede and in Domesday Book, and were probably introduced some centuries earlier by the Roman colonists of Britain.

The island of Ely was called 'Isle of Vines' by the Normans, and grape orchards are frequently mentioned in connexion with monasteries. Bishop Grindal sent presents of grapes to Queen Elizabeth from his gardens at Fulham; but from about that period the cultivation of the fruit appears to have declined. Those now celebrated for their size or productiveness are grown under glass, as at Hampton Court. Prof. Schouw says that the greatest number of bunches known to have been cut from a single plant was in the case of a vine at the Rosenberg Gardens at Copenhagen, which yielded no less than 419, weighing 610 lbs. 'In the south of France there were said to be instances of bunches weighing from 6 to 10 lbs. each, and a traveller in Palestine relates that they are to be met with there up to 17 lbs.[1]'

The general aspects of this plant,—its graceful foliage, clasping tendrils, fragrant though inconspicuous blossoms, and clustered fruit,—are too well known to need description; but it may be remarked that soil and cultivation have given rise to varieties which may be numbered by hundreds, while the flexible stems and boughs can be trained in the most diverse ways to suit the taste or convenience of the husbandman. No product of the field is more bountiful or compliant, yet none has been so irrationally and fatally abused.

In estimating the predominance of vineyards as a feature in the scenery of ancient Palestine, and an element in the sustenance of its once teeming and prosperous inhabitants, we must remember not only the ravages of successive invaders from the Babylonians and Assyrians onward, and the destructive effects of atmospheric agencies upon a thin soil artificially cleared

[1] Schouw, *Earth, Plants, and Man.*

of timber; but also the fact that the Saracens, following out the Mahometan prohibition of the use of wine, 'uprooted the vines,' as an old writer asserts, when they overran the country. A later traveller, the shrewd and accurate Maundrell, who visited the Holy Land in 1697, comments, as many since his time have done, on the bare aspect of the southern hills; but gives the true key to the difference between modern and ancient Judea, in the loss of the needful soil through neglect; and adds the opinion that these rocky slopes were just adapted for olive and vine culture.

And yet, in spite of past injuries and present misgovernment, the vine is cultivated throughout the land, from Lebanon to Hebron, though of course in diminished numbers. Vineyards dot the hill-sides with miniatures of beauty and luxuriance; the laden branches trail on the ground as in some parts of the Lebanon district, climb the walls of rude stone, or are trained on trellises in gardens and court-yards, as now at Jericho, forming delightful arbours—a 'shadow from the heat,' and a protection from the 'sun' that 'smiteth by day.'

Remains of rock-hewn vine-presses, and of towers built for the protection of the husbandman, occur more or less frequently throughout the hills of Palestine, and tell the same silent but impressive story as the oil-presses already referred to. It is equally suggestive to note that Nature has in some instances resumed her sway, oaks and lentisks having sprung up where once the vines of Israel flourished.

If we include the products of this 'plant of renown,' as well as the plant itself, the various Biblical allusions to the vine will number more than four hundred. It will not therefore be possible, even were it necessary, to quote

more than a few of those passages which seem to call for special remark.

As to the geographical range of the vine in Old Testament times, we readily gather such facts as the following:—It is first mentioned in connexion with Ararat, its primitive habitat, where, as we are informed, the patriarch Noah planted a vineyard (Gen. ix. 20). We next read of the vine as a familiarly known and cultivated plant in Egypt, as illustrated in the dream of Pharaoh's 'chief butler' (ch. xl.), and of the destruction of the Egyptian vineyards by hail-storms (Psalm lxxviii. 47). The extent and importance of this industry are abundantly and graphically depicted on the monuments, where the whole process of training the vines—usually on trellis-work supported by pillars—of gathering the fruit, and of converting it into wine, is exhibited. In prophetic language, Israel itself was a vine *brought out of Egypt* (Psalm lxxx. 8). In the insulting challenge of Rabshakeh, or rather *the* Rabshakeh (i.e. the chief cup-bearer) of Sennacherib to the Jews in the reign of Hezekiah, he offers to 'take them away' to a land like their own—'a land of corn and *wine*, a land of bread and *vineyards*' (2 Kings xviii. 32). So also, somewhat later in the history, Belshazzar and Xerxes had their 'banquets of wine,' Nehemiah appears as cupbearer to Artaxerxes, and Nahum and Habakkuk denounce the Ninevites and Chaldeans for their shameful intemperance (Dan. v. 1, 2; Neh. i. 11; Nahum iii. 11; Habak. ii. 15, 16). In accordance with these passages we find the use and abuse of the fruit of the vine repeatedly exemplified on the Assyrian sculptures.

The culture of the vine by the Canaanitish races, anterior to the Hebrew invasion, is manifest from such

incidents as the meeting of Abraham and Melchizedek, the report of the spies, and the allusions of Moses to the promised inheritance (Gen. xiv. 18; Numb. xiii. 20, 24; Deut. vi. 11). And even at that early period the district in which this branch of agriculture reached its highest perfection in Southern Palestine may be inferred from the patriarchal promise to Judah:—'Binding his foal unto the vine and his ass's colt unto the choice vine;' while the well-loved Joseph is compared to the 'fruitful bough' of a vine growing 'by a well, whose branches run over the' stone 'wall' of the terraced plantation (Gen. xlix. 11, 22).

The valley of Eshcol (*grape cluster*) yielded the huge sample of grapes carried to Moses by the spies, and received its name from the circumstance (Numb. xxxii. 9). The valley of Sorek (*vineyard*) in the Philistine plain was similarly named (Judg. xiv. 5; xv. 5; xvi. 4). So also 'the plain of the vineyards' (*Abel-keramim*), east of Jordan (ch. xi. 33). Later on, the vineyards of Engedi, on the western shore of the Dead Sea, are specially mentioned (Song of Solomon i. 14); and Jeremiah laments for the wasting of the Moabite vineyards of Sibmah (ch. xlviii. 32). The wine of Helbon in Anti-Lebanon was exported to Tyre, according to Ezekiel (xxvii. 18); and the 'scent of the wine of Lebanon' is alluded to by Hosea (xiv. 7).

In our own day, Canon Tristram reports that the raisins of Eshcol are delicious; Mr. Fisk mentions the luxuriance of the vines of Hebron, whose fruit, according to Dr. Thomson, is finer than those in most other parts of the country. Buckingham and earlier travellers declare that the wines of Lebanon are in no degree inferior to the best of those in France. At Engedi

(Ain Jidy) the terraces still remain, though the vineyards have disappeared.

And, as of old, the 'wild vine,' which is to the cultivated kind what a crab-apple is to a pippin, still overspreads ruins and waste places, bearing its 'sour grapes,' which no man cares to eat. Mr. Smith[1] thinks that a variety or species known as the Oriental vine (*V. orientalis*), producing a small acid fruit, may be the 'wild vine' of the prophecies, and possibly the 'degenerate plant of a strange vine' (Isaiah v. 2; Jeremiah ii. 21). This, however, is certainly not the 'wild vine' of 2 Kings iv. 39, which was manifestly a poisonous herb (see WILD VINE, Chapter IV).

It is needless to quote passages for the purpose of proving the extent and importance of the vine, and the value attached to its produce in Palestine, during the long periods covered by Old and New Testament history; or to the abundance and excellence of the Syrian vintage. It will suffice to mention the original promises made to the Israelites before they had been consolidated into a nation; the imagery of psalm and prophecy; and the fact that no less than five of the parables of the Great Teacher relate to vines and their culture. Equally significant is it to note that about a dozen words are found in the Hebrew and Greek languages (chiefly the former) to denote this plant and its uses.

Nor does it fall within the compass of the present work to detail the processes of this or any other branch of agriculture. A few points, however, deserve special reference. The pliancy and adaptability of which we have already spoken were fully recognized by the ancient

[1] *Bible Plants.*

inhabitants of Palestine. They imitated the Egyptians in training the vines over trellises, and their grateful shade was the emblem of prosperity and peace. The character of the soil taught the Canaanites and their successors the construction of terraces. In the court-yards of large houses, and on the walls of cottages, the vines spread their interlacing tendrils; and it is probable that they were also allowed to climb round fig and other trees. In the north, they are and probably were trained along the ground with but slight support (Psalm lxxx. 10; cxxviii. 3; Ezek. xvii. 6). As now, the vineyards were surrounded with walls of rude stone or with a hedge, or both (Isaiah v. 5; Mark xii. 1). Between such walls Balaam rode. 'Cottages,' or huts, of rough unhewn stone, roofed with earth, are built for the keepers, as in Old Testament days; and more substantial 'towers' were erected whence a look-out might be kept against the depredations of man or beast, of prowling robber or 'boar out of the forest,' or the young jackals that 'spoiled the vines' (Isaiah i. 8; v. 2; Matt. xxi. 33; Psalm lxxx. 13; Song of Solomon ii. 15).

The autumnal vintage, like the grain harvest which preceded it, was a season of special rejoicing (Isaiah xvi. 10; Jer. xxv. 30). The general arrangements are described in Isaiah's parable (ch. v.), and in that of our Lord (Mark xii. 1, &c.). The poor were allowed to glean in the vineyards, as in the corn-fields (Lev. xix. 10); the 'vine-dressers' also belonged to the poorer classes (Isaiah lxi. 5).

Beside the ordinary terms used in the Old Testament for the vine and its produce, there are several others, translated with varying degrees of accuracy in the English Version; such as 'noble vine' (probably indi-

cating one of the numerous varieties of the cultivated plant), 'tender grapes' (possibly the blossom), 'raisins,' 'grape-gleanings,' 'new,' 'red,' 'strong,' 'sweet,' 'mixed' or 'spiced' wine, and others. Of these it is only necessary to remark, that the word תִּירוֹשׁ (*tirosh*), rendered 'new' or 'sweet wine,'—or 'wine' only, when associated with 'corn' and 'oil,'—appears to denote the produce of the vine generally, and not chiefly the fermented juice; just as 'corn' signifies all kinds of grain, while 'oil' similarly represents the summer fruits of Palestine when the edible fruitage of the land is spoken of.

The 'vinegar' of the Old Testament was either a weak wine, such as the reapers were accustomed to drink during the heat of harvest (Ruth ii. 14), or else what we designate by that term, as in Proverbs x. 26. The 'wine' provided in such enormous quantities for the Temple builders by Solomon's orders is supposed to have been of the former kind. The vinegar given to the Saviour on the cross was doubtless the 'posca,' or wine and water, commonly drunk by the Roman legionaries.

In the figurative language of Scripture the vine is emblematic of the chosen people, of the blessings of the Gospel dispensation, and also of Him in whom the Church in its various members lives and grows, and of His blood shed for the ransom of mankind (Isaiah v. 7; lv. 1; John xv. 1; Matt. xxvi. 27–29). The 'treading of the winepress' is emblematic of Divine judgments (Isaiah lxiii. 2; Lam. i. 15; Rev. xiv. 19, 20).

The classical allusions to the vine and its produce would fill a volume. From its original home, 'the vine,' says Professor Hehn, 'accompanied the teeming race of Shem to the Lower Euphrates in the south-east, and to the deserts and paradises of the south-west, where

we afterwards find them settled. From Syria the cultivation of the vine spread to the Lydians, Phrygians, Mysians, and other Iranian or half-Iranian nations which had in the meantime moved up from the east. Thus it entered the Greek peninsula on the north;' and by Greek voyagers it was introduced into Italy. The second book of Virgil's *Georgics* supplies not a few striking illustrations of Scripture. The poet, for instance, refers to the 'innumerable' varieties of the vine; the need of constant care and attention, and of due manuring and pruning; the possibility of degeneracy into a wild condition, yielding a sorry fruit fit only for birds; the fitness of a light and chalky soil, and the suitableness of open hills for vineyard culture. 'That land,' he says 'which exhales thin mists and flying vapours, and absorbs and returns it at pleasure, and which clothes itself with verdant grass, will entwine joyful vines with elms, and will be rich in oil[1].'

He also advises the planting of vines 'in military array,' that is in regular rows at equal intervals, just as the Greeks planted the olive in Northern Palestine; both perhaps relics of the original plan adopted in Western Asia, though not followed by the Hebrews on the hills of Canaan.

The vine, as above stated, appears with the date palm, fig, and pomegranate on the Assyrian monuments—one of many evidences of the fertility and industry which once prevailed beside the Tigris and Euphrates.

[1] *Georg.* lib. ii. 184–193, 217–221, 259–289, &c.

CHAPTER IV.

GRAIN AND VEGETABLES.

'THE original habitat of the farinaceous grasses,' says Humboldt, in his *Aspects of Nature*, 'like that of the domestic animals which have followed man since his earliest migrations, is shrouded in obscurity. . . It is a most striking fact that on one half of our planet there should be nations who are wholly unacquainted with the use of milk and the meal yielded by narrow-eared grasses, whilst in the other hemisphere nations may be found in almost every region who cultivate cereals and rear milch cattle. The culture of different cereals is common to both hemispheres; but while in the New Continent we meet with only one species, maize, we find in the Old World the fruits of Ceres (wheat, barley, spelt, and oats) have been everywhere cultivated from the earliest ages recorded in history.' Since Humboldt thus wrote, the labours of Alphonse De Candolle and other botanists have thrown much light on the origin and history of these and other food-plants, though the conclusions reached must necessarily be conjectural in many cases.

In the countries bordering the Mediterranean, wheat and barley have been known from the dawn of history; and millet also, though it held a subordinate place. Egypt was once the world's chief granary; afterwards Sicily and Barbary: but in modern times the vast

empire of Russia, both north and south, and the rich plains of America, have become the most abundant sources of supply.

Homer and the classic poets recognize three methods of utilizing the soil, viz. the rearing of cattle, the planting of fruit-trees, and the growing of corn. And in the sacred books of the Far East the question is asked: 'Who is the fourth that fills this earth with the greatest contentment?' and the answer given is, 'He who cultivates most corn, grass, and trees that afford nourishment.' So in the promise to the Israelites concerning their future inheritance, the fruit-trees, the pasturage, and the corn-lands are all included (Lev. xxv. 3, 4, 5, 7; Deut. viii. 8, 9, 13).

What Herodotus said of Babylonia applied, though in a less degree, to ancient Egypt,—its native fruit-trees were few, but its soil produced the richest corn. Egypt, however, was a vast 'garden of herbs,' as well as a field of corn; and just as we are reminded of this fact in one of the earliest passages of patriarchal history, where Abram, driven from Southern Palestine by a temporary famine, goes down to sojourn in Egypt (Gen. xii. 10), so we have the first mention of esculent vegetables (the lentile excepted) when the Israelites, or rather the 'mixed multitude' of their camp-followers, bewailed the loss of 'the *cucumbers* and the *melons*, the *leeks*, the *onions*, and the *garlick*,' which they had eaten beside the Nile. It is also observable that nearly all the vegetables and cereal grains mentioned in Scripture are known to have been cultivated in Egypt[1].

The Hebrew words denoting these edible plants are seldom of doubtful meaning, and the general terms for

[1] See Hehn, *Wanderings of Plants and Animals.*

wild and cultivated grasses are fairly represented by their equivalents in the Authorized Version. There are, however, one or two exceptions. The word חָצִיר *chatsir* is rightly rendered 'grass' in most instances, but in two passages (Prov. xxvii. 25 and Isaiah xv. 6) it is unfortunately translated 'hay,' — an obvious error, as living and not cut grass is manifestly intended. 'Haymaking,' in our sense of the term, is not practised to any extent in Palestine; though the dried 'grass on the housetops' and fields is occasionally gathered. עֵשֶׂב *eseb* is generally rendered 'herb;' thus, in Psalm civ. 14, 'He causeth the grass (*chatsir*) to grow for the cattle, and herb (*eseb*) for the service of man.' Yet *eseb* is rightly translated grass in Psalm cvi. 20, 'an ox that eateth *grass*.' Another word, דֶּשֶׁא *deshe*, is rendered 'tender grass,' or more correctly, 'green herb.'

There are numerous terms in the Old Testament denoting corn, some more comprehensive and others more specific. Of the former class, דָּגָן *dagan*, בַּר *bar*, and שֶׁבֶר *shebir* are usually translated 'corn' or occasionally 'wheat.' *Dagan* includes all kinds of grain produce, and is therefore frequently used in conjunction with 'wine' and 'oil.' It probably includes, in addition to wheat, barley, millet, and in some cases beans, peas, and lentiles. The 'corn' which Joseph's brethren went to seek in Egypt is denoted by the terms *bar* and *shebir*, and would seem to have been wheat only. The specific term for the latter, however, is חִטָּה *chittah*.

There are also special words translated 'standing,' 'old,' 'parched,' 'beaten,' and 'ground' corn. The test word, *shibboleth*, שִׁבֹּלֶת, applied to the Ephraimites by Jephthah's soldiers (Judg. xii. 6), and now incorporated into our modern English, signifies 'an ear of grain.'

The above words, together with those translated 'straw,' 'stubble,' and 'chaff,' are fairly represented by correspondent terms in the English versions. In Isaiah v. 24 and xxxiii. 11, however, 'chaff' should be read 'dry grass,' and in Jer. xxiii. 28, 'straw.' The first and third of these comparatively trivial errors are corrected in the Revised Version.

It may be as well to remark that the absence of references to particular kinds of grain or vegetables in Scripture must not be regarded as adequate proof that such plants were wholly unknown to, or uncultivated by, the ancient inhabitants of Palestine. It is fair, however, to assume that any species which was both abundant and useful would almost certainly receive some notice, however incidental, in one or more of the sixty-six separate compositions which make up the Old and New Testaments.

Barley (Heb. שְׂעֹרָה *seorah*, Gk. κριθή).

'They came to Bethlehem in the beginning of *barley harvest*.'—Ruth i. 22.

This familiar '*long-haired*' grain—for such its Hebrew name implies, as contrasted with wheat—has a long and varied history, both sacred and classical; but we are chiefly concerned with its relation to Scripture lands and peoples. In the Old and New Testaments it is mentioned in *nineteen* books, often associated with wheat, which is named in some twenty-three or twenty-four.

In the Old World the cultivation of cereals,—wheat, rye, barley, and oats,—extends over an area of no less than forty degrees of latitude. The zone of barley and oats is the most northerly, reaching to 67° or even 70°

N. lat., while that of wheat reaches only to about 57°, the zone of rye occupying the intermediate space. In Scandinavia and other parts of Northern Europe, barley-bread is still a predominant article of diet, either alone or mixed with oaten flour. This is also the case in some districts of the Highlands of Scotland and the north of Ireland. But, at the present time, barley is raised chiefly for the production of fermented liquors and not as a staple article of food. This fact is one which exemplifies in a striking manner the advance of the British people in material comforts. A hundred and twenty years back, wheaten bread was a rare luxury among the poorer classes; barley, oats, and rye supplying the place of the costlier grain. Now, Dr. Johnson's well-known sarcasm as to the relative consumption of 'oats' north and south of the Tweed, has lost its sting; and our Scottish fellow-countrymen eat oatmeal from habit and choice rather than from any lack of wheat, while rye and barley are falling altogether into disuse as breadstuffs.

There are numerous varieties of the cultivated kinds of barley (*Hordeum*), but it is difficult to determine how many distinct species exist. In Palestine four or five species are reported, including the 'summer' and 'winter' barley of our English farmers.

Oats (*Avena sativa*) and rye (*Secale cereale*) are not grown in that country, nor does either appear to be mentioned in the Bible (see RYE). But barley was so common that it supplied the Hebrews, like ourselves, with a unit of linear measurement. With us 'three barley-corns make one inch,' according to the school-books; and in Biblical metrology Captain Conder has discovered the same simple standard of length; two barley-corns making a 'finger-breadth,' sixteen a 'hand-

breadth,' twenty-four a 'span,' and forty-eight a 'cubit' of sixteen inches [1].

We first meet with distinct mention of barley as an Egyptian crop; when smitten by the hail which formed the seventh plague, the barley was already 'in the ear,' but the wheat had not yet 'grown up,' Exod. ix. 31, 32. The barley harvest, both in Egypt and in Palestine, as we further see from Ruth ii. 23, precedes that of wheat; and the two extend through several weeks. On the plain of Philistia—the granary of ancient Canaan, as the Shunammite well knew (2 Kings viii. 1, 2)—the whole harvesting lasts from April till June; and, indeed, the inequalities of climate in Palestine must needs affect to a considerable extent the time of reaping all kinds of crops. In Elisha's day, we read of a present of barley loaves, 'bread of the firstfruits,' with 'fresh ears of corn in a sack' (2 Kings iv. 42, R. V.): this was probably parched corn from the 'fresh ears' of the yet green wheat, according to the directions for the meat offering in Lev. ii. 14. Such ears were sometimes crushed, and boiled with meat. In primitive times barley bread was a general article of diet; but as the nation prospered it became more especially the food of the poor (Judg. vii. 13; Ruth iii. 15; 2 Sam. xvii. 28). Such we learn was the case in Egypt also. Barley was then considered inferior to wheat, as it is at the present time. The Syrian farmers complain that their extortionate rulers have left them 'only barley bread to eat;' and the Bedouins scornfully term their enemies 'eaters of barley bread.' It was the few cakes of barley in the possession of a peasant lad, which at the word of the Redeemer furnished food to five thousand men. In the reign of Solomon

[1] *Handbook of Palestine.*

barley was provided in allotted quantities for the royal stables (1 Kings iv. 28), wheat not being given to horses or other domestic animals. The king also paid the Tyrian workmen partly in barley; and his successor, Jotham, received a similar tribute from the Ammonites, when that nation was subject to Israel (2 Chron. ii. 10; xxvii. 5).

The Egyptians prepared a sort of beer, called *zythus* or *zythum*, from this grain; thus anticipating the common drink of Western nations. It is mentioned by several ancient authors, as Diodorus, Strabo, and Herodotus, and among later writers by Pliny and Dioscorides. But of this beverage there is no trace in the Old Testament, and we may infer that it was either not known to or not adopted by the inhabitants of Palestine.

That the nutritive value of this grain was known to the ancients is evidenced by the fact that *polenta* or barley porridge was given to the public gladiators to strengthen them for their contests. Both 'barley water' and 'decoction of barley' are recognized in the modern pharmacopœia.

BEANS (Heb. פּוֹל *pol*). PULSE (Heb. זֵרְעִים *zeroim*).

'Take unto thee wheat, and barley, and *beans*.'—Ezek. iv. 9.
'Let them give us *pulse* to eat.'—Dan. i. 12.

Like the cereal grasses, the cultivated vegetables are found from the dawn of history following the migrations of man. The value of the seeds of pod-plants, such as peas, beans, vetches, and lentiles, would soon be recognized in the countries where they originally grew wild; but what those countries were cannot now be fully determined. Both pea and bean are of very high antiquity.

Homer mentions both, describing the arrow shot by Helenus at Menelaus as rebounding from his armour, 'as dark beans and (chick?) peas leap from the winnower's fan[1].' The Greeks appear to have brought the pea into Italy through Asia Minor, whence it is supposed to have come 'from the region of the Pontus and Caucasus,' this vegetable not having been known, it would seem, to the ancient inhabitants of either Palestine or Egypt. But BEANS (*Vicia faba*) were undoubtedly cultivated in both countries, and largely eaten by the peasantry, though the Egyptian priests were not allowed to partake of them—a prohibition extending to some other articles of vegetable diet.

Considering that the *Leguminosæ*, or pod-bearing order of plants, is represented in Palestine by more than 350 species, it is somewhat singular that the references in Scripture to the edible kinds—PULSES, as they are termed —are so extremely scanty. Probably they were much more largely cultivated than the silence of Biblical writers would lead us to suppose. Indeed, in the Mishna the bean is mentioned as among the first-fruits to be offered, and it is implied that this and other esculents were ground into meal.

Pulses are casually alluded to in the history of Daniel and his fellow-captives at Babylon, who are said to have requested a diet of 'pulse' in lieu of the meat—to them unclean—provided for the king's table (Dan. i. 12–16). The word here used is *zeroim*, or 'seeds,' a general term, though probably including the leguminous vegetables, if not referring specially to them. Our translators (A.V. and R.V.) have also supplied the term 'pulse,' on reasonable grounds, in the account of the timely supplies of food

[1] *Il.* lib. xiii.

brought by the loyal Gileadites, Machir, Shobi, and Barzillai, for David and his men, when in flight from Absalom, at Mahanaim (2 Sam. xvii. 27–29). 'Parched' (corn) is mentioned, and the adjective repeated; it is therefore probable that, as at the present time, roasted corn and parched seeds of leguminous vegetables were formerly a common article of food.

In the same passage 'beans' are specified for the first time in Scripture. The second and only other reference is in Ezekiel's prophecy (ch. iv. 9), where he is directed to make bread of several kinds of grain and of *beans* and lentiles. Both these references, incidental as they are, imply the common use of the bean.

In modern Palestine beans are sown in November and ripen in the time of wheat harvest; while in Egypt they are still earlier in coming to perfection. Canon Tristram saw a field in full blossom during the last week of February, near Nablous. They are cut down with scythes, crushed with a rude machine, and so prepared for the food of camels, goats and oxen; or they are triturated, so as to remove the skins, and then sent to the markets.

The ancient Egyptians delighted in a vegetable diet, which, indeed, constituted the chief means of sustenance of the poorer classes, and, except on public occasions, was conspicuous on the tables of the rich. In classic times beans and chick-peas were among the common food of the humbler grades of the Italian population; and the names of the proud families of Fabius, Piso, and Cicero were derived respectively from the bean (*faba*), pea (*pisum*), and chick-pea (*cicer*). Both the latter seeds are now raised in Syria.

CUCUMBERS (Heb. קִשֻּׁאִים *kishuim*).
GOURD (Heb. קִיקָיוֹן *kikayon*, פַּקֻּעוֹת *pakkuoth*).
MELONS (Heb. אֲבַטִּחִים *abattichim*).
WILD VINE (Heb. גֶּפֶן שָׂדֶה *gephen sadeh*).

'We remember . . . the *cucumbers*, and the *melons*.'—Numb. xi. 5.
'Jonah was exceeding glad of the *gourd*.'—Jonah iv. 6.
'One . . found a *wild vine*, and gathered thereof *wild gourds*.'—2 Kings iv. 39.

Most refreshing to the inhabitants of the warmer regions of the globe are the fruits yielded by the Gourd family of plants, called, from a familiar and representative genus, *Cucurbitaceæ*; and this notwithstanding a bitter principle which some of them contain, and which needs artificial treatment for its removal. The order comprises the gourds, cucumbers, and melons, the pumpkin and vegetable-marrow, with the Colocynth and Elaterium, well known as yielding powerful drugs. They vary greatly in flavour, partly according to climate and cultivation; and we may contrast the lusciousness of the water-melon and sugar-melon with the harshness of our cucumber, or the insipidity of the pumpkin. But in Southern Europe, and still more in Egypt, Syria, and the Farther East, their cooling pulp and juice are most refreshing and healthful. We need not altogether wonder that the Israelites, wearily marching through the arid solitudes of the Sinaitic peninsula, thought more of the cucumbers and water-melons of which they had had no lack in Egypt, rather than of the cruel bondage which was the price of those luxuries. In the above-quoted passage, more than one kind of CUCUMBER (*Cucumis*) may be included, or the reference may be to the Egyptian or Hairy Cucumber (*C. chate*), which Hasselquist called 'the queen of cucumbers, refreshing, sweet, solid, and whole-

some.' The Egyptians, however, cultivated more than one kind, and three or four are now grown in Palestine, including the above, and the species familiar on Western tables (*C. sativus*). In Isaiah's allusion (ch. i. 8) to 'a lodge in a garden of cucumbers'—that is, a booth or shed of branches erected for the use of the watcher or keeper, as in vineyards—the word used is derived from the same root. Gesenius thinks that the name of the city called Dilean (דִּלְעָן), in Judah's territory (Josh. xv. 38), has the meaning of 'cucumber-town' or 'field.'

Still more valued in modern, and probably in ancient times, are the water-melons, another species of *Cucumis* (*C. melo*), which grow exuberantly in some parts of the coast plain of Palestine. Miss Rogers, in *Domestic Life in Palestine*, says of one district near Cæsarea: 'Looking westward we could see a broad strip of the now sunlit Mediterranean, beyond the melon gardens, which are by no means picturesque. The large rough melon leaves lie flat on the level ground, which looks as if it were strewn with great green and yellow marbles, fit for giants to play with. There were no hedges or trees to break the monotony of the view. We wished to buy a few melons, but the overseer of the labourers told us that we might take as many as we liked, but he could not sell them except by hundreds. After a refreshing rest we re-mounted and rode through miles and miles of melon ground.' It was doubtless for these delicious products that the multitudes longed, the Hebrew and Arabic names being almost identical; and they doubtless formed a common article of food. The water-melon is supposed to have come originally from tropical Africa; thence to Egypt, and so into Asia, and at a later date to Southern Europe, where its different varieties are

equally esteemed. It is extensively grown in Egypt during the rise of the Nile, and in the month of March on the sand-banks beside the river; and was doubtless so cultivated in Old Testament days. Hasselquist says that it attains a very large size, one fruit yielding several pounds' weight of juice. A medicinal oil is extracted from the seeds; indeed, the melon serves the poorer classes with meat, drink, and medicine.

Professor Hehn connects the word *cucumis* with *cumera* or *cumerum*, a covered vessel, in allusion to the use of the rind of fruits of the gourd tribe from time immemorial. This leads to a consideration of the GOURD, which afforded to the discouraged prophet Jonah so welcome a shade, and so salutary a lesson. Much useless controversy has been expended, even from the days of Jerome and Augustine, on the identification of this plant; whose growth, if the plain narrative be accepted, was miraculously accelerated for the prophet's benefit.

The extent and frequency with which gourds are trained over arbours and along the walls of houses in the East, their singularly rapid growth and agreeable shade, beside the fact of their actual cultivation in Assyria, would seem amply sufficient reasons for accepting the received translation. But on philological grounds a claim has been advanced in favour of the Palma Christi, or castor-berry, or wild sesamum, the *Ricinus communis* of botanists, a broad-leaved shrub of the spurge tribe, from which the well-known medicinal oil is obtained. The plant was cultivated by the ancient Egyptians for the sake of its oil, and is still grown to some small extent in that country. It is also found in Palestine and Assyria, and its oil extracted. But the Jewish opinion is in favour of identifying the Arabic name *kurah* with the *kikayon* of Jonah; and,

according to Niebuhr, this was the view taken by the Jews and Christians residing at Mosul, one of the localities on the Tigris which, since Niebuhr's day, have been shown to occupy the site of ancient Nineveh. Dr. Thomson's testimony—virtually that of a native of the Holy Land—seems decisive. 'Orientals,' he says, 'never dream of training a castor-oil plant over a booth, or planting it for a shade, and they would have but small respect for any one who did.'

It may be added that the gourd tribe are as remarkable for their vegetative growth as for the rapidity with which it is attained. The bottle-gourds of the West Indies reach dimensions of six feet in length by two in thickness, and the rind of one has been stated to hold twenty-two gallons. Pliny speaks of pumpkin calabashes for containing wine. In the island of Cyprus Mrs. Scott-Stevenson describes the houses as 'shaded by gigantic gourds, with fan-like leaves, forming a natural porch at every doorway.'

A different word is used in 2 Kings iv. 39, where we read that one of the young men in attendance on the prophet Elisha went out 'to gather herbs, and found a wild vine, and gathered thereof *wild gourds* his lap full, and came and shred them into the pot of pottage: for they knew them not . . . And it came to pass, as they were eating of the pottage, that they cried out and said, O thou man of God, there is death in the pot.' This plant of course was no literal vine, since its fruit was of a kind to be shred or sliced into the soup or broth. The Rabbinical writers also state that the *pakkuoth* contained seeds which yielded an oil, which is the case with many of the *Cucurbitaceæ*.

The colocynth (*Citrullus colocynthus*) seems to be the

plant intended. It is a well-known medicine, bitter and drastic; its flavour would at once excite alarm, and its properties would render it highly poisonous if eaten as food. 'The colocynth,' says Canon Tristram, 'grows most abundantly in the barren sands near Gilgal, and all around the Dead Sea in the low flats, covering the ground with its tendrils. We never saw a colocynth elsewhere.' Dr. Bonar also speaks of it as a plant of the Desert; but it is certainly found wild also on the maritime plains. It grows also, and is used medicinally, in the island of Cyprus. It is gathered in large quantities, and exported to Europe; and it is a familiar object in our chemists' shops. It was easy for an inhabitant of the highlands of Palestine, as Dr. Tristram points out, to mistake this unfamiliar vegetable for one of the harmless kinds; and as it was a time of scarcity, he would be glad to appropriate any likely esculent.

The bright orange rind of the colocynth, when fully ripe, taken in connexion with the bitter seeds and dust which it then contains, seems to point to it as identical with the 'apple of Sodom' mentioned by Josephus, and celebrated by the poet Moore in the oft-quoted lines, and by Byron in *Childe Harold*:—

> 'Like to the apples on the Dead Sea's shore,
> All ashes to the taste.'

Other writers call them 'oranges,' and the tradition is undoubtedly a very ancient one. It has been suggested that the 'apples of Sodom' were galls of the *Quercus infectoria*; but oaks do not grow on the shores of the Dead Sea, and the 'fruit' in question is said to be a product of that district especially.

The *Solanum sanctum*, a plant of the nightshade tribe, and a native of the same tropical region, has been

put forward as fulfilling the requirements of the Jewish historian's description. It is a thorny shrub, and 'bears a large crop of [poisonous] fruit, larger than the potato-apple, perfectly round, yellow at first, and when quite ripe changing to a brilliant red.' The pulpy interior dries up, leaving only a quantity of black seeds. Canon Tristram regards this *Solanum* as more probably representing the 'thorns' of the 'hedge' in Proverbs xv. 19 and the 'brier' of Micah vii. 4.

The 'vine of Sodom' and 'grapes of gall' seem to point in the same direction; a vine-like, spreading plant, with intensely bitter fruit, being apparently indicated. Some of the nightshades contain a bitter principle, but it is much less marked than in the colocynth.

GARLICK (Heb. שׁוּמִים *shumim*).
LEEKS (Heb. חָצִיר *chatsir*).
ONIONS (Heb. בְּצָלִים *betsalim*).

'We remember . . . the *leeks*, and the *onions*, and the *garlick*.'—Numb. xi. 5.

The somewhat romantic history of these bulbous vegetables contrasts singularly with their homely associations, and not less with the cursory notice bestowed upon them in the sacred writings. The botanist includes them all in the genus *Allium*, of which between thirty and forty species are now found growing in Palestine. This fact strongly confirms the testimony of secular historians as to the culture of these pungent roots by the Hebrews of former times, as well as by their neighbours the Egyptians, from whom we may infer they derived their acquaintance with them. Either Syria or Egypt is thought to be the country in which they were first adopted by man after emigrating from their original home in the interior of

Asia. Garlick and onions were provided for the table of the Persian kings; Homer (*Il.*, lib. xi.) introduces Hecamede as offering a drink flavoured with onions to the veteran Nestor; and after that poet's age they became the common food of the people of both Greece and Italy.

But with increased refinement of taste, the scent of garlick and onions became an object of aversion. The aristocrat could not endure contact with those who fed on so gross a diet, as is shown in the comedies of Aristophanes and Plautus; while the squeamish Horace (*Epod.* iii.) deems garlick only fit for condemned criminals[1]. But in Syria, as in modern Russia, no such objection to these odorous vegetables seems ever to have existed; indeed, in the East, perfumes are relished which we could scarcely tolerate. We, on our part, are more sensitive in such matters than our ancestors, of whom we may say, as Varro of the Romans, 'The words of our forefathers no doubt were odorous of garlic, but the breath of their spirit was all the nobler.' 'The Israelites,' as Professor Hehn humorously observes, 'ever since their regretful thoughts strayed away from the sandy waste around them to the garlick of Egypt, have remained fast friends of that vegetable, both before and since the destruction of Jerusalem, whether at home in their Holy Land, or in the Dispersion under Talmudic and Rabbinic rule.'

The LEEK (*Allium porrum*) appears to have been the primitive object of cultivation. Its Hebrew name, meaning 'herb' or 'grass,' suggests that it was at first regarded by the Semites as '*the* herb,' *par excellence*. It is remarkable that in the languages of the Celts, Germans,

[1] Virgil, *Ecl.* ii. 10, 11, speaks of garlick and thyme as refreshing the reapers after their toil.

and Slavonic nations, *leek* (Anglo-Saxon *leác*) has the original meaning of 'succulent herb.' Thus GARLICK (*A. sativum*) is *gârleác*, 'the cloven leek,' while ONION (*A. cepa*) is the 'undivided' leek,—*unio*, *unus*, one.

According to Herodotus, the pyramid builders of Egypt were fed on radishes, onions, and garlick; which, together with lentiles, formed the chief vegetables of that prolific land. They appear among the offerings presented to the gods; and being in a sense sacred, were prohibited more or less absolutely to the priesthood. For this Juvenal ridicules the Egyptians as a people whose 'gods grew in their kitchen gardens.' Hasselquist praises in the highest terms the mild and agreeable flavour of the Nile onions.

The leek is the national emblem of Wales, and among the Northern Teutons, as in Asia Minor and Greece, magic powers were attributed to it. It was also a symbol of victory. A writer in *Science Gossip* quotes a 'tradition' prevailing 'in the East, that, when Satan stepped out of the garden of Eden, after the Fall of Man, *onions* sprang up from the spot where he planted his right foot, and *garlick* from that which his left foot touched.' This must be a relic of the magical properties attributed to these vegetables, and not a sarcasm on their powerful odour, to which Orientals would feel no objection. The classic name *porrum* has been derived from the Celtic term *pori*, to eat, whence our *porridge*.

The *shallot*, another Syrian species of *Allium*, carries its descent in its name. It is a corruption of *eschallot* (Fr.), the onion of *Ascalon*, described by the Greek botanist Theophrastus, whose modern representatives have re-named it *A. Ascalonicum*. It still grows, both wild and in gardens, around the site of the old

Philistine city. Pliny says this species is good for sauces. We are supposed to owe its introduction to the Crusaders[1].

LENTILES (Heb. עֲדָשִׁים *adashim*).

'Where was a piece of ground full of *lentiles*.'—2 Sam. xxiii. 11.

The LENTILE (*Ervum lens*) is the smallest of the cultivated leguminous plants. It is a slight-growing annual, with compound leaves and tendrils; and bears purple flowers, which develope into pods, each containing two or three convex beans. It grows to a height of six or eight inches, and in the warm plains of Egypt ripens by the end of March. In Palestine, however, the harvest of this useful bean does not fall until June or July, when the plants are either reaped with a scythe or pulled by hand, and then carried to the threshing-floor. From one of these countries, and not from Central Asia, the lentile is supposed to have reached Europe. On the borders of Egypt stood Phakussa—the 'lentile town'—but the meanings of the Greek word φακός and the Latin name *lens* are quite unknown. The plant made its way into Central and Northern Europe, and is cultivated in many parts of the Continent, whence it is imported into our own island. Its nutritive qualities are well known, and have been taken advantage of in the manufacture of 'Ervalenta' and 'Revalenta' foods for invalids; but the flavour of the lentile is scarcely agreeable to English palates.

It is not so, however, in the East, even among European residents. Speaking of the pottage made of the red

[1] De Candolle (*Origin of Cultivated Plants*) thinks the shallot a mere variety of the onion, and less ancient than is usually supposed.

variety of lentile—considered superior to the brown—Dr. Thomson says he 'found it very savoury indeed;' and adds that 'Frank children,' born in Palestine, 'are extravagantly fond of this same *adis* pottage,' which, 'when cooking, diffuses far and wide an odour extremely grateful to a hungry man.' It was thus that the faint and famished Esau cried out, at the first sight of his brother's tempting meal, 'Feed me, I pray thee, with the *red*—this *red*,' into which he might dip the soft 'bread,' spoon-fashion, as now his descendants are accustomed to do. 'So Jacob gave Esau bread, and pottage of lentiles' (Gen. xxv. 29–34). Barzillai and his companions brought contributions of lentiles, with the 'parched corn' and 'beans' already noticed, for David and his soldiers, because they were 'hungry and weary;' and 'a piece of ground full of lentiles[1]' was the scene of a memorable exploit of Shammah the Hararite, one of the 'first three' of David's warriors (2 Sam. xvii. 28; xxiii. 11). Lentiles were also among the ingredients of which the prophet Ezekiel was directed to make bread as a sign of the coming siege of Jerusalem (Ezek. iv. 9). It is stated that in Upper Egypt the bread eaten in some districts is made entirely of lentile flour, wheat being scarce. Among the ancient Egyptians this vegetable held a high place. It was among the chief articles of diet used by the peasantry and artisans, and some varieties (such as the Pelusium lentiles) were of more than local celebrity[2]. On a bas-relief at Thebes the

[1] In the parallel narrative in 1 Chron. xi. the field is described as sown with *barley* (ver. 13). As lentiles are occasionally sown among other plants both statements may be literally accurate. There are, however, other verbal discrepancies in these chapters.

[2] Virgil bids his husbandman 'not to despise the care of the Pelusian lentile.' *Georg.* lib. i. 228.

making of soup or porridge is shown, one man being engaged, like Jacob, in 'seething' the 'pottage,' while his companion brings faggots for the fire, the beans being piled up in baskets hard by. With the other vegetables before named, lentiles were offered to the gods, with other first-fruits of the field produce; and having a sacred character, were forbidden to the priestly caste.

MILLET (Heb. דֹּחַן *dochan*).

'Take thou also unto thee . . . *millet* . . . and make thee bread thereof.'—Ezek. iv. 9.

MILLET, one of the cultivated grasses—the *Panicum miliaceum* of botanists,—became an article of human diet at a very remote period in both East and West. In this country it is scarcely recognized, except as food for poultry, for which purpose a limited quantity is imported from the Mediterranean, hardly any being grown here. But it is cultivated throughout Eastern lands as a minor corn-plant, and anciently immense quantities were raised in Babylonia and Assyria, in Western Asia, and in Central and Southern Europe; until wheat, rice, and maize superseded the inferior grain. In the memorable 'Retreat of the Ten Thousand' the Greeks marched 'through the country of the *Millet-eaters*;' and the Spartans were called by a similar name. The Celts, Gauls, and Scythians sowed millet; and although mentioned but once in Scripture, it was probably included among the bread-plants of the ancient Hebrews. Several species of the genus *Panicum* grow in Palestine; they are stout annual grasses, with broad leaves, and bear dense clusters of small seeds.

The above must be distinguished from the black millet or dhourra of the Arabs, *Sorghum vulgare*, which

seems to have been known to the Egyptians of former days, as it is to their modern descendants. It is now much cultivated throughout the Mediterranean region, but came originally from India.

'RIE' (R.V. SPELT), (Heb. כֻּסֶּמֶת *kussemeth*).
WHEAT (Heb. חִטָּה *chittah*, Gk. *σῖτος*).

'The appointed barley and the *rie* in their place.'—Isaiah xxviii. 25.
'He should have fed them also with the finest of the *wheat*.'—Ps. lxxxi. 16.

The knowledge of this, to us, the most valuable and interesting of all the cereals, dates back to prehistoric times; though its name, signifying *white* (corn) is inferred to point to an acquaintance with an older and darker-coloured grain. The old Greek word *πυρός* is traced back to the same root as our English *furse*, Anglo-Saxon *fyrs*—a name originally given to a grass, and subsequently transferred to *this* grass, by way of distinction.

However this may be, we meet with mention of WHEAT in some of the earliest pages of sacred history, as a special object of culture in Palestine, Egypt, and the neighbouring countries. The eldest son of Jacob went out 'in the days of wheat harvest' (Gen. xxx. 14); but, years before, Isaac had 'sown' in the land of Gerar in the south-west, and 'reaped a hundred-fold;' and had included, in the blessing bestowed on the disguised Jacob, 'plenty of corn and wine' (ch. xxvi. 12; xxvii. 28). At a still earlier epoch, Egypt was renowned for her superabundant produce of grain—enough to support her own teeming population, and to meet the wants of other countries when their own supplies were inadequate (Gen. xii. 10, &c.). Less extensive, but not less valuable,

were the wheat fields which overspread the Syrian plains; from Philistia on the western seaboard to the far-stretching land beyond the eastern hills—the *Belka* of the modern Arabs; and from Cœle-Syria, beyond Lebanon, to the 'South country,'—whither the patriarchs more than once 'went down' from the hills of Judah.

The wheat grown in Palestine now, and probably in Bible days, does not differ from the species with which we are acquainted—the *Triticum vulgare* of botanists; but there are sundry varieties. One of these was called 'Heshbon wheat' by Captain Mangles. It is a bearded kind, bearing several ears on one stalk, and is remarkably prolific, one calculation giving double the number of grains in an ear as compared with English wheat, with nearly thrice the weight, and a taller stalk. Canon Tristram supposes that this was the 'wheat of Minnith,' exported by the Hebrews to Phœnicia, as stated by the prophet Ezekiel (xxvii. 17). Minnith was in the territories of the ancient Ammonites, and is now identified with *Menjeh*, a city around whose ruins lay 'one sea of wheat' when the last-named traveller visited it.

The Egyptian wheat was also a bearded kind, and the variety called 'mummy wheat,' when sown, produced a stalk bearing several ears, like that of Heshbon, and such as the Pharaoh of old saw in his dream (Gen. xli. 22). It is also shown on the monuments, and is occasionally grown in Lower Egypt at the present day. Anciently, immense crops of wheat and barley were raised in the rich plains of the Assyrian and Babylonian empires. In the province of Susiana, according to Strabo, the yield of wheat was from one to two hundred-fold,—a degree of fertility remarkable even in the East (Gen. xxvi. 12).

In Palestine, wheat is sown in November or December,

and reaped in May or June, according to the precise climate and locality. In Egypt the harvest was about a month earlier, in both countries the barley preceding the wheat by three or four weeks.

RYE is essentially a northern species (*Triticum secale*), and is now scarcely known in Palestine or Egypt. The Hebrew word rendered in the Authorized Version 'rie,' in Exod. ix. 32, Isaiah xxviii. 25, and (much less excusably) 'fitches' (i.e. vetches) in Ezek. iv. 9, is with more probability translated 'spelt' in all three passages of the Revised, and in the margin of the older Version. SPELT (*Triticum spelta*) is a hard and rough-grained wheat, bearded, but much resembling the ordinary kind. It seems to have been cultivated in Palestine from long-past times, and probably in Egypt also. It is the ξειά of the Greeks and the *far adoreum* of the Romans, who fully recognized its nutritious qualities. In two of the Old Testament passages above cited spelt is named in close connexion with 'wheat,' and the Revised Version renders Isaiah xxviii. 25 as follows: 'Doth he [the husbandman] not put in the *wheat in rows*, and the *barley* in the appointed place, and the *spelt in the borders thereof*?' as if this species were formerly sown as a border round fields of the other cereals.

When gathered, the corn was not made into 'shocks' or 'stacks,' but carried to the 'threshing-floor'—an open space beaten flat and smooth. Here the grain was separated from the straw by hand with a flail (Judg. vi. 11; 1 Chron. xxi. 20), or by the feet of oxen (Deut. xxv. 4), or by a heavy cart or dray, either wheeled, or constructed of a heavy slab of wood studded with flints on the under side (Isaiah xxviii. 27, 28; xli. 15). It was winnowed (xli. 16) by being tossed up with a 'fan' or shovel,

and ground by handmills turned by women (Exod. xi. 5; Isaiah xlvii. 2), or in later times by mules or asses (Matt. xviii. 6, R.V. marg.).

REED (Heb. קָנֶה *kaneh*, אָגָם *agam*; Gk. κάλαμος).
'PAPER REEDS' (Heb. עָרוֹת *aroth*).
RUSH (Heb. אַגְמוֹן *agmon*, גֹּמֶא *gome*).
BULRUSH (Heb. אַגְמוֹן *agmon*, גֹּמֶא *gome*).
'FLAG' (Heb. סוּף *suph*, אַחוּ *achu*).

'A bruised *reed* shall he not break.'—Isaiah xlii. 3.

'The *reeds* and *flags* shall wither. The *paper reeds* (R. V. 'meadows') . . . shall wither.'—Isaiah xix. 6, 7.

'Can the *rush* grow up without mire?'—Job viii. 11.

'She took for him an ark of *bulrushes*.'—Exod. ii. 3.

Beside running streams, and especially around the margins of lakes and pools, in damp meadows and marshy places, the familiar types of vegetation known as 'reeds,' 'rushes,' and 'sedges,' grow with more or less luxuriance. They are closely allied to, though distinguishable from, the ordinary grasses; they have a quiet beauty of their own which the microscope further reveals, and are not devoid of economic uses. One in particular, the papyrus or byblus, is indissolubly associated with the history of literature, and has bequeathed to us two of our most suggestive words, 'paper' and 'Bible.'

The Rushes (*Juncaceæ*) are distinguished by their fine though inconspicuous flowers, while the Sedges (*Cyperaceæ*) have merely scales, like the 'flower of the grass.' The true Grasses (*Gramineæ*) have rounded and hollow stems, those of the sedge tribe are solid and angular. More than twenty species of rushes, and nearly thirty of sedges, grow in Palestine, including the papyrus. The terms 'reed' and 'cane' are applied to the stems of

various grasses and sedges. 'Flag' is a name now restricted to the genus *Iris*, represented in our gardens and river-sides, but quite distinct from the plants so translated in the Authorized Version.

The usual term for a REED is קָנֶה (*kaneh*) in the Hebrew; equivalent to the *κάλαμος* of the Greeks and the *calamus* of the Romans. It is no doubt as general in its application as the English synonym, giving a title to 'the brook of Kaneh,' one of the boundaries of the tribe of Ephraim (Josh. xvi. 8), and including the 'sweet cane' of Isaiah xliii. 24, noticed in Chapter VI. The fragility, pliancy, and instability of these humble forms of vegetation furnish the sacred writers with striking emblems of spiritual truth; and the bruised and broken reed, and 'reed shaken with the wind,' are metaphors as familiar to Bible readers as the objects from which they are derived.

A still more general term, אָגָם (*agam*) is rendered 'reeds' in Jer. li. 32 (R.V.), 'The passages [fords, of Babylon] are surprised, and the *reeds* are burned with fire.' The same word is rendered 'pool of water' in Ps. cvii. 35 and cxiv. 8 (R.V.), where it is obvious that mere plants cannot be meant. It would seem therefore that *agam* may mean simply either a standing water or the vegetation which usually fringes such pools. The marginal rendering 'marsh' is thus fairly correct. It may be added that this latter word occurs only in Ezek. xlvii. 11: 'But the miry places [of the *Ghor*] and the *marishes* thereof, shall not be healed,' apparently with reference to the salt marshes at the southern end of the Dead Sea.

The rendering 'PAPER REEDS' in Isaiah xix. 7 would be specially noteworthy if there were anything in the original to sustain it; but the Revisers translate, on

better grounds, as follows: 'The *meadows* by the Nile, by the brink of the Nile, and all that is sown by the Nile, shall become dry.' As to the papyrus, that most interesting plant has disappeared from Lower Egypt; but if included in the prediction of the prophet it is in the preceding verse, where we read 'the *reeds* and *flags* shall wither away;' the former term קָנֶה (*kaneh*) comprehending grasses and sedges, and the latter סוּף (*suph*) all other aquatic vegetation.

This term FLAG is also unfortunately perpetuated in the Revised Version of Exod. ii. 3, 'she laid it in the *flags*.' Its meaning is simply 'weeds,' including alike sea-weeds and those growing in fresh water. Thus, the prophet Jonah says in his prayer: 'The weeds (*suph*) were wrapped around my head' (ch. ii. 5); the Hebrew name of the Red Sea is always 'Sea of Weeds' (*yam suph*), and the infant Moses was laid in his 'bulrush' cradle among the water-weeds of the Nile.

Equally unfortunate is the rendering of another word אָחוּ (*achu*) in Job viii. 11: 'Can the *flag* grow without water?' The same word occurs in Gen. xli. 2, where Pharaoh saw in his dream cattle 'feeding in a *meadow* (*achu*).' The term is probably Egyptian, and we may accept the assertion of the ancient commentator St. Jerome, who explains it as meaning 'all marshy vegetation.' The Revisers have rendered the latter passage 'fed in the reed grass,' and would have done well to transfer a like rendering of Job viii. 11 from the margin into the text. It is, however, rather in *marsh* grass than *reed* grass that cattle would find pasturage.

We come now to the terms RUSH and BULRUSH, where two words are thus indiscriminately translated in the Authorized Version. The first, אַגְמוֹן (*agmon*), occurs

thrice in the book of Isaiah:—'The Lord will cut off from Israel head and tail, branch and *rush*' (ch. ix. 14); the same figure is repeated in ch. xix. 15; and in the more familiar passage (ch. lviii. 5), 'Is it to bow down his head as a *bulrush*?' A lowly grass, with drooping plume, is evidently intended. In Job xli. 2, it is rendered 'hook,' and in verse 20, still more strangely, 'caldron,' but in the Revised Version '(burning) rushes.' Dr. Tristram inclines to think that the *Arundo donax*—a splendid cane growing abundantly beside the Jordan and the Dead Sea, forming impenetrable thickets, and reaching a height of ten or twelve feet—is *the* reed of Scripture. But though it may be the 'reed shaken with the wind,' a less conspicuous grass or sedge seems indicated by the prophet in the passages above quoted, and it appears safer to take the word in a less specific sense, just as poets speak of

'Green *rushes* and sweet *bents*'

without any attempt to distinguish the precise genus or species. The prophet contrasts the 'branch' of some tall or spreading tree with the humble 'rush,' growing beside the shady pool or running stream.

The other word גֹּמֶא (*gome*) occurs in Exod. ii. 3, where the cradle of the infant Moses is said to have been of 'bulrushes,' 'daubed with slime and pitch;' in Isaiah xviii. 2, where the Ethiopians are spoken of as sending ambassadors by the sea even in *vessels of bulrushes* upon the waters; and in Job viii. 11, 'Can the *rush* grow up without mire?' To this last question corresponds the prophetic use of the same term in Isaiah xxxv. 7: 'In the habitation of dragons [R. V. jackals], where each lay, shall be grass with reeds and *rushes*.'

The first two references appear to point distinctly to

the papyrus of Egypt; the third has in all probability a similar reference, since Egyptian imagery is frequent in the Book of Job, showing that the writer was well acquainted with that country. Isaiah also, as just seen, was acquainted with the papyrus, and if it grew in Palestinian waters in his day, as it does now, there would be no need to insist on a more general meaning.

The Revisers have shown much judgment and taste in the introduction of this un-Biblical word 'papyrus.' In the children's favourite story Moses is still cradled in 'bulrushes,' the correct term being given in the margin. In Isaiah xviii. 2, 'papyrus' is inserted in the text, while in xxxv. 7, the generic form 'rushes' is retained. In Job viii. 11, papyrus is given as an alternative.

This interesting plant (*Papyrus antiquorum*) is a tall green sedge, with a large and drooping panicle or tuft of florets springing from a sheath at the top. It reaches a height of from ten to fifteen feet, with a diameter of from two to three inches at the base. It had various economic uses, as Pliny and other writers have shown; though, as the Egyptians cultivated other sedges, it is probable that these became more exclusively used for food and fuel, sails and cordage, baskets and sieves, not to speak of the punts or canoes to which the prophet refers and which other writers specially mention. 'The right of growing and selling the papyrus became a government monopoly,' says Sir G. Wilkinson; and it was carefully cultivated, especially in certain districts of Lower, and probably of Upper Egypt also, for the great and important purpose with which its name must ever be associated. For this manufacture the rind was removed, the pith cut in strips and laid lengthwise on a flat board, their edges united by some glue or cement (Pliny says 'Nile water'), and the

whole subjected to pressure, compacting the several strips into one uniform fabric.

This material, it need scarcely be remarked, was well known to the ancients, and continued to be used in Europe until the time of Charlemagne, when it was superseded by parchment. It is remarkable that although we have no trace in Scripture of the use of papyrus or other vegetable substance by the Jews for writing purposes, the plant has been found to exist in vast quantities in the Lake Merom, as already noted, at the northern end of the Lake of Tiberias, and in some of the streams which flow into the Mediterranean. On the other hand, it has disappeared from Egypt, where it once grew in myriads. It is grown also in Sicily and Sardinia, but on a limited scale.

Of the papyrus, or some allied species of sedge, Heliodorus relates that the Ethiopians made swift-sailing wherries, capable of carrying two or three men each; and the traveller Bruce refers to a similar use of this ancient plant among the modern Abyssinians. Other writers give similar testimony, and it is highly probable such light vessels were coated with bitumen, like the rude basket made by Jochebed for her endangered infant.

'Tares' (Gk. ζιζάνια).

'His enemy came and sowed *tares* among the wheat.'—Matt. xiii. 25.

The word incorrectly rendered 'tares' occurs only in the New Testament, in the parable to which it has given a title. It is not a classical term, but is supposed to be a Grecized form of a local name. The Arabs still give the name of *zirwan* to a noxious grass, which is only too common in the corn-fields of Palestine, simulating the

wheat when undeveloped, though easily distinguishable when 'both have grown together until the harvest.'

This plant is the DARNEL of the agriculturist and the *Lolium temulentum* of botany. It is by no means unknown in our own country, though somewhat local in its distribution. Mr. Grindon says: 'At Mobberley, in Cheshire, it is so exceedingly abundant, that in a single walk through the fields a large sheaf may be collected. . . . The country people thereabouts believe it to be degenerated wheat.' A similar idea anciently prevailed in reference to oats, but both are erroneous. Shakespeare has not overlooked this intruder:

> '*Darnel* and all the idle weeds that grow
> In our sustaining corn.'

In the East it is a more serious enemy to the farmer; and in the low-lying districts of the Lebanon and other parts of Palestine it becomes alarmingly plentiful. If inadvertently eaten it produces sickness, dizziness, and diarrhœa. 'In short,' remarks Dr. Thomson, 'it is a strong soporific poison, and must be carefully winnowed, and picked out of the wheat, grain by grain, before grinding, or the flour is not healthy[1].'

The parable of our Lord is true to the life and experience of the present time in the land in which He dwelt, except that a deliberate sowing, from 'malice aforethought,' of this wild grass, is not known to residents in modern Palestine. Yet it would seem, strangely enough, to be not altogether out of date nearer home. Turning over the pages of an old newspaper some years since, the writer met with the following paragraph:— '"The country of Ill-will" is the by-name of a district hard by St. Arnaud in the north of France. There,

[1] *The Land and the Book.*

tenants, when ejected by a landlord, or when they have ended their tenancy on uncomfortable terms, have been in the habit of spoiling the crop to come by vindictively sowing *tares*, and other coarse strangling weeds, among the wheat; whence has been derived the sinister name in question. The practice has been made penal, and any man proved to have tampered with any other man's harvest will be dealt with as a criminal.'

Darnel was known to the ancients under the Greek name of αἶρα and the Latin one of *lolium*. Virgil[1] speaks of 'unlucky darnel,' and groups it with thistles, thorns, and burs, among the enemies of the husbandman.

[1] *Georg.* lib. i. 151–4.

FLOWERS FROM THE SHORES OF THE LAKE OF GENNESARETH.

CHAPTER V.

HERBS AND FLOWERS.

TO what extent the cultivation of flowers for ornamental purposes was practised by the ancient Hebrews is a question of considerable interest, more easily asked than answered. The evidence is meagre and somewhat conflicting; and space will allow of no more than a brief reference to one or two salient points.

It is certain that the Jews were surrounded by peoples with whom the culture of flowers amounted to a passion. It was so with the Egyptians on the west; it was so with the Persians, Assyrians, and Babylonians on the east. At a somewhat later period, it was so with the classical nations. In Egypt, 'so fond' were its inhabitants 'of trees and flowers, and of rearing numerous and rare plants, that they even made them part of the tribute exacted from foreign countries; and such, according to Athenæus, was the care they bestowed on their culture that those flowers, which elsewhere were only sparingly produced, even in their proper season, grew profusely at all times in Egypt[1].' We in our own land have been but following, of late years, the ancient dwellers by the Nile; 'the tables in whose sitting-rooms were always decked with bouquets, and they had even artificial

[1] Wilkinson.

flowers, which received the name of "Egyptian."' The Romans called their festive garlands by the same title.

The testimony of Herodotus and the evidence of the monuments tend to show that the Assyrian races had also learned the love of flowers from their Medo-Persian neighbours and conquerors. Persia is and was the land of flowers, the garden of the East. Moreover, the evidence of floriculture in modern Palestine is equally clear and unquestionable. Speaking of the homesteads of the peasantry, Miss Rogers[1] says, 'Round them there is a thriving little garden, full of stocks and carnations and other brilliant-coloured and fragrant plants, while the orange and thorny fig, loaded with fruit, create a delightful shade.' Mr. Farley[2] writes, 'Here are gardens where the rose, the orange flowers, and the jasmine mingle their perfumes into one delicious odour, almost too powerful for the senses.'

And yet against the probabilities which such facts suggest we have to set the equally remarkable facts that garden flowers are scarcely mentioned in Scripture, that (excluding trees and shrubs on the one hand, and spices and perfumes on the other) not half a dozen flowers, wild or cultivated, are named; and that while we read of gardens of *herbs* and gardens where *fruit* trees grow, the only allusions to flowers *in* gardens are to be found in the Song of Solomon, where 'spices' and 'lilies' are spoken of as shedding fragrance amidst fruit-bearing trees. That monarch was especially likely, of all Hebrew sovereigns, to introduce Egyptian or other foreign customs; and it is probable, from subsequent references to *royal* gardens (cf. 2 Kings ix. 27; xxi. 18; xxv. 4; and Neh. iii. 15), that his successors

[1] *Domestic Life in Palestine.* [2] *Two Years in Syria.*

maintained the delightful enclosures which that magnificent king had laid out and planted with so much taste and industry (cf. Eccles. ii. 5). The gardens alluded to by the prophets Isaiah and Jeremiah (cf. Isaiah lxi. 11; Jeremiah xxxi. 12, &c.) may have been private, or like those adjoining modern Syrian towns and villages. The Egyptian custom of wearing garlands at feasts was evidently adopted by the Jews in the moral and political decline of their commonwealth; but even 'the drunkards of Ephraim' do not seem to have reached the depth of effeminacy which prevailed under the Roman emperors, when guests, half-intoxicated with wine and powerful odours, were literally smothered in the flowers on which they reclined. But it is painfully obvious that as the Hebrews came more and more under Gentile influences, the tendency to unbridled indulgence increased (Isaiah xxviii. 1–4; Wisdom ii. 6–9; Judith iii. 7; xv. 13).

On the whole it seems safe to conclude that a few favourite flowers were cultivated, in Bible times, in gardens mainly devoted to plants of more direct utility; but that flower-gardens, such as Europeans delight in, were almost if not entirely unknown. This mingling of the economic and the ornamental was very widely practised in Egypt and the East; and by the Greeks and Romans, as we learn from Homer, Pliny, and the Roman poets. Dr. Daubeny has commented on the singularly small number of garden flowers known to the Greeks and Romans, notwithstanding the growth of floriculture and the luxurious delight in flowers which prevailed in Southern Europe. The ornamental plants mentioned by Virgil and by Columella are less than twenty; the shrubs under a dozen; and the medicinal

herbs but twenty-five. He rightly points out that most of these cover several species which would not be regarded as distinct; and this of course applies with still greater force to Hebrew names of such plants. Yet, with all deductions, the number is strikingly limited, and it may be well to apply the professor's suggestive remark to Biblical as well as classical plants, that, 'in the genial climate of Greece and Italy there would be much less temptation to hunt over distant countries for exotic embellishments to their gardens and pleasure grounds, when Nature herself had supplied them so liberally at home[1].'

How 'liberal' that endowment was, travellers in Palestine in the early spring have enthusiastically testified. The meadows are then ablaze with flowers of every hue. Gorgeous ranunculi and anemones, hollyhocks and mallows, cyclamens and convolvuluses, fragrant and thymy blossoms, where the bee loves to hover, ferns and orchids, and a host of liliaceous plants bespangle 'those holy fields' as when they won the notice of the Great Teacher who

> '. . . . moved across the Syrian solitudes
> Through a wild wealth of flowers.'

There is not that long continuance of floral beauty with which we are familiar in our more humid climate. Under the beams of an Eastern sun 'the grass withereth and the flower fadeth' as the summer comes on. In the great plain of Gennesareth, for instance, huge thistles, centaureas, and other thorny plants tower above the rank herbage when the summer has advanced; yet the glory of the spring-time can hardly have been unnoticed by the subjects of the royal poet who wrote: 'The

[1] See Daubeny's *Roman Husbanary*, Lect. VII.

flowers appear on the earth; the time of the singing of birds is come, and the voice of the turtle [dove] is heard in our land' (Song of Solomon ii. 12)[1].

The present chapter will be devoted to a brief notice of some herbaceous plants formerly grown in the fields and gardens of the Hebrews, without attempting to recognize the modern distinctions of kitchen-garden and parterre.

ANISE (Gk. *ἄνηθον*). MINT (Gk. *ἡδύοσμον*). RUE (Gk. *πήγανον*).

'Ye tithe mint and *rue* and all manner of herbs.'—Luke xi. 42.
'Ye pay tithe of *mint* and *anise*.'—Matt. xxiii. 23.

These three familiar herbs have but a limited connexion with the sacred writings, the sole references to them being in the Saviour's words above quoted. They represent three different botanical orders; but have this in common, that they are herbaceous, odorous, and economically useful.

The 'anise' of the New Testament is not the plant from which aniseed is derived, but that known as DILL (*Anethum graveolens*). It belongs to the umbelliferous order, and is not unlike fennel, growing from twelve to twenty inches or more in height, with flat elliptical fruits (popularly called the 'seeds') which contain a volatile oil. Both leaves and fruit are eaten in the East as condiments. The Pharisees made a point of tithing their dill—a practice enjoined in the Talmud; but in their excess of ceremonial zeal, they did the same with mint and rue, concerning which no such command appears to have been issued.

[1] For a judicious selection of flowers of Northern Palestine, the reader is recommended to consult a beautiful little volume of coloured drawings by Mrs. Zeller, of Nazareth, entitled *Wild Flowers of the Holy Land* (Nisbet).

MINT (*Mentha*), of which three species grow in Palestine, was valued and used for like purposes. It is a labiate plant, and the sweet odour from which it derived its Greek name is too familiar to need further reference. In classical story it was a favourite of Pluto, and in mediæval times it was one of the plants sacred to the Virgin Mary.

RUE (*Ruta graveolens*) is mentioned in the Talmud among herbs which are tithe free. Its scent is too powerful to be agreeable to Western taste, but it was valued by the ancients, like many other strongly-smelling plants. It is a small shrub, of from two to three feet in height, with much-divided leaves and yellow flowers.

All the above herbs were formerly used medicinally as well as for condiments, and still appear in the pharmacopœia. Mint and dill are carminative, and rue is a stimulant and antispasmodic. In Milton's days, and long before, rue was deemed strengthening to the eyesight—

> '. . . . then purged with euphrasie and *rue*
> The visual nerve;'

it was also regarded as valuable against the charms of witchcraft. The rue of Palestine (*R. chalepensis*) is an allied species.

BRAMBLE (Heb. אָטָד *atad*, Gk. *βάτος*).

'Nor of a [the] *bramble bush* gather they grapes.'—Luke vi. 44.

It has been intimated in a former page that, in the writer's opinion, the task of seeking to identify the numerous Hebrew words denoting thorny and prickly shrubs is a hopeless one; neither the terms themselves nor their Greek or Latin equivalents being capable of

satisfactory determination from the botanist's point of view. Doubtless distinctions did sometimes exist in the minds of the writers; but in most cases their meaning appears to have been generic rather than specific. It is so in our own language: we speak of 'thorns' and 'briers' with the vaguest of meanings; yet also of '*the* thorn' (i. e. hawthorn) and '*the* brier' (i. e. the sweet-brier).

The 'BRAMBLE' is an example of this ambiguity. In Jotham's parable (Judg. ix. 14, 15) a particular plant would at first sight seem to be intended; but we have the word more generally applied in Psalm lviii. 9, 'Before your pots can feel the *thorns*,' where the use of thorny plants as fuel is alluded to. There is, however, no objection to applying these passages to the shrub which we know as the bramble or blackberry (*Rubus*), which in Palestine is represented chiefly by *R. discolor*, a species growing also in our own country. Mr. Atkinson noticed this plant near Shechem (Nablous). Canon Tristram, however, inclines, with some older writers, to render *atad* by 'buckthorn' (*Rhamnus*), of which genus the Holy Land yields nearly a dozen species.

In our Lord's time, the word translated 'bramble bush' (Luke vi. 44) was applied to the common blackberry (*R. fruticosus*), and He probably alluded to the Palestinian variety above mentioned.

COCKLE (Heb. בָּאְשָׁה *boshah*). HEMLOCK (Heb. רֹאשׁ *rosh*).

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

'Judgment springeth up as *hemlock* in the furrows.'—Hosea x. 4.

The above passages are examples of common names wrongly converted into proper ones in our Authorized

Version, and which the Revisers have partially corrected by a marginal reading. The 'cockle' of Job has nothing to do with the cockle of our corn-fields (*Lychnis githago*)—

> '. . . . we nourish 'gainst our senate
> The *cockle* of rebellion;'

the word simply means 'worthless,' and is used as an adjective in Isaiah v. 2, where it is rendered '*wild*' (i. e. bad), and applied to 'grapes.'

Rosh, translated 'hemlock,' is a still stronger word, and means 'venom' or 'poison,' and not that umbelliferous plant—poisonous though it be—with which the wisest of uninspired teachers was foully slain. In Deut. xxix. 18, it is rendered 'gall.'

(For the 'hemlock' of Amos vi. 12 see WORMWOOD.)

CORIANDER (Heb. גַּד *gad*).

CUMMIN (Heb. כַּמּוֹן *kammon*, Gk. *κύμινον*).

FITCHES (Heb. קֶצַח *ketsach*).

'It was like *coriander* seed, white.'—Exod. xvi. 31.

'Doth he not cast abroad the *fitches*, and scatter the *cummin*?'—Isaiah xxviii. 25.

These three small herbs, though but incidentally mentioned in Scripture, were of some importance in times anterior to the introduction of pepper and similar condiments, more familiar to Western tables; and all had somewhat analogous uses.

CORIANDER (*Coriandrum sativum*) is alluded to simply by way of comparison with the 'manna' provided for the wandering tribes of Israel in their long pilgrimage; but it is evident, from this circumstance, that it was well known. 'The best is from Egypt,' says Pliny; and thence, no doubt, the Hebrews gained their know-

ledge of its properties. The Africans are said to have called this herb by a similar name (*goid*) to the Hebrew term, which Gesenius derives from a verb (גָּדַד *gadad*), signifying 'to cut,' in allusion to the furrowed appearance of the fruit. It is still much employed in the East as a condiment, and forms an ingredient in curry powder. The fruits are aromatic, and are used in medicine as a carminative. Coriander is an umbelliferous plant, growing from one to two feet in height, with divided leaves and small white flowers.

CUMMIN (*Cuminum cyminum*) belongs to the same order, and resembles the preceding in general character and properties. As the Greek name is evidently derived from the Hebrew, we may conclude that this, like so many other useful plants, reached Southern Europe from Syria. From the passage in Isaiah above quoted, and the context, we find that it was an article of cultivation among the Jews, as in Egypt. The Ethiopian cummin was esteemed the best, and then the Egyptian. The ancients used it as a condiment with fish and other viands, and as a stimulant to the appetite; and the Egyptian cooks sprinkled the seeds or fruits upon cakes and bread, as ours use carraways.

'The FITCHES,' says the prophet in the passage cited (Isaiah xxviii. 27), 'are beaten out with a *staff*, and the *cummin* with a *rod*,'—a light stick only being needed to detach the seeds of the latter. 'Fitches' is obviously an error of our translators, which is corrected in the margin of the Revised Version. We are there told that the herb meant is that miscalled 'black cummin' (*Nigella sativa*), an annual plant, like the two former, but belonging to the Ranunculus or Buttercup order. Its leaves resemble those of fennel, and its flowers are

white or pale blue. The seeds are black, and contained in a capsule; hence a stout 'staff' was required to separate them. The Egyptians, Greeks, and Romans used it to flavour bread and cakes. It is so used in Egypt and Palestine at the present day, as well as for flavouring dishes. The ladies of the former country are said to eat 'black cummin' to promote the admired degree of *embonpoint*; while Horace's contemporaries, it would seem from his *Epistles* (lib. i. ep. xix), drank an inf sion of the seeds to produce pallor. Six species of *Nigella* are enumerated in the Syrian flora.

FLAX (LINEN, FINE LINEN), (Heb. בַּד *bad*, פִּשְׁתָּה *pishteh*, סָדִין *sadin*, שֵׁשׁ *shesh*; Gk. λίνον, βύσσος).

'The *flax* and the barley was smitten.'—Exod. ix. 31.
'He arrayed him in vestures of *fine linen*.'—Gen. xli. 42.

A volume of no slight interest might be written on the FLAX plant (*Linum*) and its economic history, but the subject does not fall within the scope of the present work. Like hemp, its value has been twofold,—in its fibres and its seeds; but, while the former plant was unknown in Egypt and Western Asia, flax appears among the earliest of fabrics manufactured for human clothing.

It has been satisfactorily proved by microscopic investigation, though for a time the fact was doubted, that the 'fine linen' of ancient Egypt was precisely, as Scripture had affirmed, the spun fibre of flax, and not, as suggested by certain archæologists, of cotton; though the latter material was both known and wrought in that land of industry, according to Sir G. Wilkinson. 'When we consider,' says Prof. Hehn, 'the length of the linen strips so used [for mummy cloth], the number of the

dead—it would have been an abomination to bury a corpse in wool—and the universal use of linen as clothing by the living; when we hear that the only costume of the priests was of pure linen, they being only permitted to wear an upper mantle of woollen when outside the temple; and when we consider the large exportation going on in those days; we are astonished at the quantity of linen which must have been produced in the regions of the Nile.'

Long before the flax crops of Egypt were smitten by the plague of hail, Joseph had been arrayed in the much-prized material, which was worked with such skill and delicacy that specimens exist showing '140 threads to the inch in the warp, and about sixty-four in the woof.'

A fabric in all cases so light, smooth, and cleanly, was specially fitted to be the dress of those who were officially engaged in religious worship. Hence we are not surprised to find that the Jewish priests, like those of Egypt, were commanded to wear linen garments (Exod. xxviii.; Ezek. xliv. 17–19), or that the tabernacle curtains were embroidered upon the same material (Exod. xxvi. 1). In like manner Samuel and David are represented as 'girded with a linen ephod' (1 Sam. ii. 18; 2 Sam. vi. 14).

Angelic beings seen by Ezekiel and Daniel (Ezek. ix. 2; Dan. x. 5) appeared as if 'clothed in linen'; and in the final visions of the Apocalypse, angels and glorified saints are adorned with the same emblematic garments of purity (Rev. xv. 6; xix. 8, 14).

If the Israelites had not brought with them the knowledge of flax, they would have found it in Canaanite looms, as we gather from the story of Rahab of Jericho

(Joshua ii. 6). The excellence of the spinning and weaving of Jewish women is hinted at in Proverbs (xxxi. 22–24, R.V.), where the 'wise woman' is described as making and selling linen girdles, and as wearing robes of the same material. 'Fine linen' is also among the luxuries for which, in degenerate times, the Hebrew women of fashion are rebuked by the prophet (Isaiah iii. 23). The rich man in the parable was 'clothed in fine linen,' and Joseph of Arimathæa bestowed this last honour upon the crucified Saviour before laying the body in 'his own tomb' (Luke xvi. 19; Mark xv. 46).

Besides curtains and articles of dress, cord and sail-cloth were manufactured of linen; 'white sails' are mentioned by Homer in the *Odyssey*; and the Tyrians appear to have obtained such from Egypt (Ezek. xxvii. 7), and other 'fine linen' from 'Syria' (ver. 16). It was also used in Palestine for lamp-wicks (Isaiah xlii. 3).

The general aspect of the humble flower whence this fibre, rightly named by Linnæus 'most useful' (*usitatissimum*), is familiar to most persons, growing wild as it does on chalky soils, beside being cultivated in some parts of both England and Ireland. Mr. Smith, in his *Bible Plants*, thus succinctly describes the species in question, which is common to Palestine, Northern Africa, and Europe:—'It is a slender, wiry-stemmed annual, attaining the height of about 3 feet; having small, simple, alternate leaves, and terminated by several pretty blue flowers succeeded by five-celled capsules about the size of a pea. These capsules are called "bolls," and the expression, "the flax was bolled" (Exod. ix. 31), means that it had arrived at a state of maturity. When the bolls are ripe the flax is pulled,

and tied in bundles; and in order to assist the separation of the fibre from the stalks, the bundles are placed in water for several weeks, and then spread out to dry.' (See Joshua ii. 6.)

The seeds of the flax ('linseed') are largely imported into this country, together with the fibre, from Egypt, Russia, India, and the United States. The abundance of olive oil in Palestine probably rendered the Hebrews indifferent to this application of the plant; but the Egyptians extracted oil from flax as well as from many other herbs unknown to, or unnoticed by, their less enterprising neighbours.

Hyssop (Heb. אֵזוֹב *ezob*, Gk. *ὕσσωπος*).

'Ye shall take a bunch of *hyssop*, and dip it in the blood.'—Exod. xii. 22.
'They filled a sponge with vinegar, and put it upon *hyssop*.'—John xix. 29.

If Lyonnet and Strauss-Durckheim could each devote years to the study of the anatomy of a despised insect, Biblical expositors have endeavoured to imitate those eminent naturalists in the time, thought, and learning which they have expended on one, and that proverbially the humblest, of Scripture plants. The cedar of Lebanon has not awakened a tithe of the discussion which philologists and Eastern travellers have maintained around 'the HYSSOP that springeth out of the wall.' Celsius, for example, after devoting some forty pages to the examination of the claims of half as many botanical candidates, leaves the question as unsettled as at first. In a small handbook like the present we shall hardly be expected to traverse the debateable ground or to pronounce an *ex cathedrâ* verdict.

The word 'hyssop' was adopted by the Greeks directly from the Hebrews, and it has been naturalized in our

own language with but slight alteration. It is applied to a genus of labiate plants, of which the common species (*Hyssopus officinalis*) grows in this country as a garden plant. It occurs in Palestine, but is not conspicuous among the numerous *Labiatæ*[1] of the Syrian hillsides, where mint and thyme, rosemary and lavender, savory and marjoram, secrete honey and diffuse their healthful fragrance in the bright spring-time. Among these tradition identifies the hyssop of Scripture with the familiar herb, MARJORAM (*Origanum*), of which six species are found in the Holy Land. The common kind, so well known in cottage gardens (*O. vulgare*), grows only in the north, but an allied species (*O. maru*) abounds throughout the central hills, and a variety is common in the southern desert. Tradition may therefore be said in this case to accord with the requirements both of Scripture and geography.

It appears first as a plant sufficiently common in Egypt to be used by all the Israelite families in the observance of the Passover; afterwards it is directed to be used in the ceremonial purification of leprosy and in the sacrifice of the red heifer (Exod. xii. 22; Lev. xiv. 4; Numb. xix. 6). It was deemed the type of a humble plant, and grew in the crevices of walls (1 Kings iv. 33). Whether it possessed cleansing properties of its own is not determined by Psalm li. 7, as the reference may be to the Passover. Its stem seems to have been large and strong enough to support a sponge filled with liquid (cf. Matt. xxvii. 48; John xix. 29).

Mr. Carruthers, in the *Bible Educator*, argues that the marjoram fulfils all the needful conditions. Several species of marjoram are common in Palestine, and are

[1] Probably not under two hundred species.

found in Egypt and the Sinaitic Peninsula. The straight herbaceous stems and rough hairy leaves would well adapt it for making into a bundle and using as a sprinkler. This eminent botanist also considers that the hyssop used at the crucifixion was placed 'on a reed,' i.e. a plant stem distinct from that of the marjoram (cf. Matt. xxvii. 29; Mark xv. 36). This is in accordance with the views of Rosenmüller, who urges that the aromatic scent of the herb, which would tend to refresh the agonized Saviour, was the reason for its employment by the Roman soldiers.

Dr. J. F. Royle, on the other hand, contended that the Caper plant (*Capparis spinosa*) best represented the 'hyssop' of Scripture. It grows in the Jordan valley, Egypt, and the Desert, in the gorges of Lebanon, and in the Kedron valley; and it 'springs out of the walls' of the old Temple area. The Arabs call it *azuf*.

This view has been adopted by Dean Stanley, Canon Tristram, and other modern writers. But the caper is not generally distributed in Palestine, and its crooked, woody, and prickly stem would render it quite unfit for sprinkling purposes. Except from the similarity between the Hebrew and Arabic names, the balance of probability seems to favour the older view, that the marjoram, or some closely allied labiate herb, was the hyssop of the Old and New Testament.

Readers of the Revised Version will have noticed a remarkable rendering of Eccles. xii. 5, in which, while the Authorized Version has 'desire shall fail,' the newer translation reads 'the *caper-berry* shall fail.' This rendering, however, is no novelty, the oldest Greek and Latin MSS. and the Syriac version interpreting in the same manner. The meaning appears to be, either that

condiments like the fruit of the caper (eaten in the East as with us) fail to stimulate the waning appetite of the aged man; or that he, like an over-ripe caper-berry, is ready to fall to the earth. It should be noted that the Hebrew word thus translated is אֲבִיּוֹנָה (*abiyonah*), and bears no relation to *ezob* or hyssop.

LILY (Heb. שׁוֹשַׁן *shoshan*, Gk. κρίνον).

ROSE (Heb. חֲבַצֶּלֶת *chabatseleth*).

'Consider the *lilies*, how they grow.'—Matt. vi. 28.
'The desert shall rejoice and blossom as the *rose*.'—Isaiah xxxv. 1.

Remembering the extent to which these two queens of the floral world, the LILY and the ROSE, have figured in ancient and modern literature, and the varied strains in which poets have sung their praises; remembering that the Holy Land lay between Persia, the garden of roses, on the one side, and the lands of classic song on the other; and remembering also that both in Egypt and Palestine, according to the testimony of modern travellers, the manufacture of rose-water is a recognized occupation,—it certainly is not without surprise and hesitation that one is led to conclude that neither the rose nor the lily (as we understand those terms) is mentioned in either the Old or New Testament, and moreover that neither of the words so translated in our English Bible can be identified with certainty. Yet such is the verdict of the best authorities, both Jewish and Christian.

Turning first to the botanical evidence, we find that while several species of rose are indigenous to Palestine, they are found chiefly in the Lebanon range, and do not form a prominent or characteristic feature of the vegetation. We must look further north for 'Syria's land of

roses,' as sung by Thomas Moore. As to liliaceous plants, enough has already been stated to indicate their richness and variety in Israel's land during the brief season of spring. Yet there are, apparently, but two species of *Lilium* native to the country, the white lily (*L. candidum*) and the scarlet martagon (*L. Chalcedonicum*), both of which are rare.

The evidence of language—often so valuable in indicating the course of plant migration where history fails us—tends in the same direction. The word translated 'rose' occurs but twice in the Bible, viz. in the passage quoted at the head of this section, and in the Song of Solomon (ii. 1), 'I am the *rose* of Sharon.' Gesenius and other eminent philologists derive the name from a root (בָּצַל *betsel*) denoting a '*bulb*.' If this be accepted, the Scripture 'rose' is at once removed into totally different botanical associations, and must be sought for among the lily-like flowers of the field.

That this was the view taken by the Alexandrian translators of the Old Testament, we infer from their version of Isaiah xxxv. 1, which in the Septuagint reads, 'the desert shall rejoice and blossom as a *lily* (κρίνον).' In the other passage they seem doubtful as to the plant intended, and instead of 'I am the rose of Sharon,' they paraphrase it, 'I am a flower of the plain[1], and a lily of the valleys;' the same word being made to do duty for the 'rose' in the one passage and the 'lily' in the other.

Our Revised Version, following the Syriac, adopts the autumnal crocus as the Biblical 'rose,' and gives a marginal note to that effect. But, with all deference to so ancient an authority, the *Colchicum autumnale* has

[1] Sharon means 'level ground.'

little to recommend it to so honoured a position. It is pale and scentless, and inferior in form and beauty to a score of other flowers of kindred affinities.

A much more probable interpretation is that of the Chaldee and Arabic translators, who give the narcissus, *narkus* or *narkom*, as the equivalent of the Hebrew *chabatseleth*. According to the late Dr. Royle the French daffodil or polyanthus narcissus (*N. tazetta*) is considered in the East to be the same as the *narkum*. This species, which curiously enough was called by the old Greeks βολβὸς ἐμετικός, 'emetic *bulb*,' is the only true narcissus indigenous to Palestine; but there are amaryllises and other members of the same family, and there seems no reasonable ground for restricting the original word to one small species[1], albeit this has been noticed as abounding in the plain of Sharon.

The narcissus was a special favourite with the Greek poets; one of whom, Sophocles, sings, 'And, day by day, the narcissus with its beauteous clusters, the ancient coronet of the mighty goddesses, bursts into bloom by heaven's dew.' Ovid relates the well-known fable of the vain though beautiful youth; and Virgil sings of the 'purple' and the 'late-flowering narcissus[2].'

Dr. Thomson, finding that the Arabic name for the mallow is *khubbazy*, inclines to the belief that this flower, common in Palestine as with ourselves, may represent the Scripture 'rose.' Miss Rogers also mentions a village called Khubeizeh, 'from the abundance of mallows growing there.' The verbal resemblance is

[1] The Italians call this narcissus *tazetta*, or 'little cup,' and the Chinese cultivate it for their new year's festivals.

[2] Ovid, *Met.* lib. iii. *Fab.* vi; Virgil, *Eclog.* v. 38; *Georg.* iv. 122.

certainly singular, but the mallow is not a 'bulbous' plant[1].

Turning now to the 'lily' we are constrained to fall in with the principle laid down by Dr. Daubeny, in respect to Latin and Greek authors, that plant-names are to be taken as representing genera, and not particular species. Indeed, we must often, as we have already seen, go beyond this, and include whole families in one popular term, so that 'lily' is no longer the *lilium* of botanical classification, but includes such forms as tulip, iris, gladiolus, hyacinth, fritillary, and perhaps orchis and squill. And it is the writer's conviction, that both the spirit of the Saviour's teaching and the actual probabilities of the case are best met by considering that when He bade His disciples 'consider the lilies' it was to the whole assemblage of vernal flowers—chiefly liliaceous in type—which bloomed around them, that He directed attention, and not to any special kind, whether genus or species. 'Solomon in all his glory was not arrayed like one of these,' in their mingled tints of scarlet and purple, crimson and gold.

A like general interpretation seems best to suit the bearing of such references as the name of the Persian city '*Shushan* the palace' (Neh. i. 1; Esther i. 2), the Hebrew feminine name 'Susannah,' and the titles

[1] If the 'bulb' theory did not present so serious an objection, we might find in the garden or poppy anemone (*A. coronaria*) a much more probable representative of the Biblical rose. Of this Canon Tristram writes: 'The most gorgeously painted, the most conspicuous, and the most universally spread of all the floral treasures of the Holy Land.' Mrs. Zeller figures several varieties of this beautiful flower, and it seems strange that it should have found no mention in sacred story. Dr. Tristram believes it to be the 'lily of the field' pointed to by our Lord; but with all deference to so justly esteemed an authority, we cannot think that the Great Teacher would have passed over all those plants ordinarily included in the word κρίνον, and applied it to a flower so far removed from the liliaceous type.

prefixed to Psalms xlv. and lx.—*Shoshannim*, 'lilies,' and *Shushan-eduth*, 'lily of testimony.'

The flowers which formed part of the Golden Candlestick of the Jewish tabernacle, and which both the Septuagint Version and Josephus call 'lilies' (κρίνα), were merely conventional forms—probably the Egyptian sacred lotus. So also we may conclude was the lily work of Solomon's temple (Exod. xxv. 31, &c.; 1 Kings vii. 19, &c.)

There remain only the references to lilies in the Canticles and the prophecy of Hosea. In the former there is mention of 'gathering lilies' and 'feeding among lilies.' Here also the meaning seems unrestricted to a particular kind of flower, since we cannot imagine one kind of lily or liliaceous plant to have occupied the 'garden' to the exclusion of others equally fragrant or beautiful. (See chs. ii–vii.)

Hosea (xiv. 5) promises that Israel 'shall grow as the lily,' and, judging from the context, a particular type of lily, though not necessarily an individual species, would seem to be intended. More definite still is the allusion in Song of Solomon ii. 1, 2: 'I am the lily of the valleys. As the lily among thorns, so is my love,' &c. If in these instances we are led to select one liliaceous genus from the rich variety with which Palestine is and was endowed, the genus IRIS appears to us to have pre-eminent claims. Large, vigorous, elegant in form and gorgeous in colouring, no fitter emblem could be found, from an Oriental standpoint, in which to convey the sentiment of admiration and love.

The conclusions to which we have been led may therefore be thus briefly summarized:—that the 'rose' of the Old Testament, if a bulbous plant, as philologists con-

tend, was represented by the *narcissus* and allied forms (amaryllis, &c.). If not bulbous, the *poppy* or *garden anemone* appears a highly probable claimant. As to the 'lily,' the κρίνα of the New Testament and in most instances the *shoshannim* of the Old, denote liliaceous plants in general; the other references being either to architectural forms, or indicating the *Iris* or Flag, in its lovely and conspicuous varieties.

Both roses and lilies are several times mentioned in the Apocrypha. The 'lilies' offer no special interpretation distinct from that above suggested; but the 'roses' of 2 Esdras ii. 19, and the 'rose-buds' of Wisdom ii. 8, were probably what we understand by those words. The 'rose by the brook' of Ecclus. xxxix. 13, and the 'rose-plant in Jericho' of the same book (ch. xxiv. 14), are most likely the oleander.

It would appear that the cultivation of the rose had by this time become known to the Jews, and there are numerous references to 'gardens' and 'flowers' in these later books, with other evidence of the influence of Gentile customs.

The stream of Semitic civilization, to which Europe owes so much, as it moved westward, divided, according to Professor Hehn, into two branches, a northern and a southern—an *Armenian* and a *Syrian*; and it was by the northern route, *viâ* Asia Minor, that the rose and the lily passed from Persia into Italy. Thus we may explain the absence of the true *Rosa* and *Lilium* from the Flora of Palestine.

Mallows (Heb. מַלּוּחַ *malluach*).

'Who cut up *mallows* by the bushes.'—Job xxx. 4.

The suggestion that the mallow is the 'rose' of the

Old Testament has been referred to in a preceding page, but the 'mallows' which the homeless and famine-stricken are described by Job as gathering to satisfy their hunger, bear no relation to the malvaceous type of plant. The word so rendered is derived from *melach*, 'salt,' and our Revisers have rightly translated the passage, 'They pluck SALTWORT by the bushes.' The *Atriplex halimus* and other saline plants, called goose-foots and *oraches*, are eaten by the poor in Palestine, just as similar herbs are used as food in our own country. In each a number of different species are found; and *A. hortensis*, the garden orache, is often cultivated as a sort of spinach. The ashes yield the 'soap' of Scripture.

MANDRAKES (Heb. דּוּדָאִים *dudaim*).

'The *mandrakes* give a smell.'—Song of Solomon vii. 13.

The slight references to this plant in the Old Testament, in the above passage, and in Gen. xxx. 14–16, where it is said to have been gathered by Jacob's eldest son in the Syrian or Mesopotamian fields, 'in the days of wheat harvest,' would warrant an equally brief notice here, but for the mass of superstitious folly and falsehood which has accumulated around the MANDRAKE of Oriental and classical story. Commentators are by no means unanimous in the above rendering, a dozen other fruits and flowers having been suggested; but the majority agree with the Septuagint in understanding the Scripture mandrake to be the *Mandragora officinarum*, a near relative of the nightshades, the 'Apple of Sodom,' and the potato plant. It is found throughout the valleys and plains of Palestine, both west and east of the Jordan, and is still reputed by the Arabs to possess

the medicinal virtues possibly hinted at in the story of Reuben. This weird herb is thus described by Mariti:—'At the village of St. John in the mountains, about six miles south-west from Jerusalem, this plant is found at present, as well as in Tuscany. It grows low, like lettuce, to which its leaves bear a strong resemblance, except that they have a dark green colour. The flowers are purple, and the root is for the most part parted. The fruit, when ripe, in the beginning of May, is of the size and colour of a small apple, exceedingly ruddy, and of a most agreeable odour; our guide thought us fools for suspecting it to be unwholesome. He ate it freely himself, and it is generally valued by the inhabitants as exhilarating their spirits.'

It is, perhaps, the curiously forked shape of the root which first drew attention to the plant; as a little exercise of imagination could easily discover in it a caricature of the human form. 'As mandrakes,' says an old English writer, 'whereof witches and impostors make an ugly image, giving it the form of the face at the top of the root, and leave those strings [rootlets] to make a broad beard down to the feet.' Fables would soon multiply on such a foundation; hence the ridiculous superstition adopted by Josephus that it could only be uprooted with safety by such expedients as attaching a dog to the stem, the animal dying in convulsions as soon as the plant had been detached from the soil. The physician Dioscorides held this view, as shown in a singular drawing copied by Dr. Daubeny in his *Roman Husbandry*. Josephus also says that the mandrake, which he calls *Baaras*, has but one virtue, that of expelling demons from sick

persons. It was also supposed to utter shrieks when disturbed, and to behave in other respects like a sensitive being. These notions and many others were brought into Europe, and have had their influence even in our own country until comparatively recent times:

> 'And shrieks like *mandrakes*, torn out of the earth,
> That living mortals hearing them run mad.'

The plant, which is found wild in Southern Europe, has, like most of its order, poisonous properties, being both violently purgative and narcotic:

> '.... not poppy nor *mandragora*
> Nor all the drowsy syrups of the world
> Can ever med'cine thee to that sweet sleep
> Which thou owedst yesterday.'

Professor Bentley remarks that it was used by the ancients as an anæsthetic. The Arabs call it 'Satan's apple.'

MUSTARD (Gk. *σίναπι*).

'The kingdom of heaven is like to a grain of *mustard* seed.'—Matt. xiii. 31.

This familiar plant, though as common in Palestine as in our own country, is mentioned only in the New Testament, in three or four passages, all occurring in our Saviour's discourses. In St. Matthew's gospel, and in the parallel passages in Mark and Luke, it is made the subject of one of the parables of the kingdom. In two other passages (Matt. xvii. 20, and Luke xvii. 6) the seed is again referred to in the inspiring words, 'If ye have faith as a grain of MUSTARD SEED, ye shall say unto this mountain, Remove hence to yonder place, and it shall remove.'

Somewhat unnecessary objections have been raised to the statement in the above parable that the mustard becomes 'the greatest among herbs,' while its seed is

'the least of all seeds;' and that the plant becomes 'a tree, so that the birds of the air come and *lodge* in the branches thereof.' And attempts have been made to discover some other Syrian plant, which possessed a more minute seed and yet attained larger proportions.

Apart, however, from the fact that the Greek word is free from all ambiguity, it appears sufficient to notice that our Lord was speaking, not in *botanical* but in *agricultural* language; and in this respect the mustard seed appears to be the smallest of those which the Jews were accustomed to sow in their fields. As to the size attained by the herb, the reader does not need to be reminded of the remarkable vegetative power of the *Brassicæ* or cabbage family, to which the mustard belongs. Dr. Thomson says: 'I once discovered a veritable cabbage tree on the cliffs of the Dog River;' but examples may be found in our own Channel Islands.

The same observer records of the wild mustard: 'I have seen this plant on the rich plains of Akka [Phœnicia] *as tall as the horse and his rider*.' Plants of much lower stature would afford 'shelter' to 'the birds of the air;' the Great Teacher does not say that they *built their nests* in any such spots. There are traditions in Palestine of mustard *trees* into which a man could climb, and Lord Claude Hamilton saw specimens in Upper Egypt 'higher than he could reach, and with a stem as thick as a man's arm.' Several species occur in Palestine and Egypt; and the mustard grown in the latter country was deemed specially excellent. It is but little cultivated, according to Dr. Kitto, by the peasantry of modern Syria, except for the use of the Frank residents.

NETTLE (Heb. חָרוּל *charul*).

'As Gomorrah, even the breeding (R.V. a possession) of *nettles* and salt-pits.'—Zeph. ii. 9.

The remarkable order (*Urticaceæ*), which yields the above familiar but unpopular plant, includes not a few of high value to man. Of these, however, none were utilized by the Hebrews except the fig, and subsequently the mulberry. The Hemp and the Hop are not mentioned, and the NETTLE is only regarded as a noxious weed, deriving its name from a verb meaning 'to burn,' just as our own forefathers called it, according to our etymology, *netel* or *nædl*, a needle. Professor Hehn, however, considers the derivation to be from *nähen*, to sew, pointing back to the primitive age when in Europe nettle yarn and cloth were made by the women, as is still done in some parts of Western Asia. This was the case in Scotland until the last century, and both there and in England the leaves were eaten as a pot-herb, and infused in water as a domestic medicine.

In Scripture the nettle is associated with thorns and brambles, as an inhabitant of waste and neglected spots. The outcasts of Job's days 'were gathered together under *nettles*' (ch. xxx. 7), and such weeds grow to a height of six feet in the warm Jordan valley. Moab was to be like 'Gomorrah, a possession of *nettles*,' such as grow near the Dead Sea. Solomon noticed the garden of the slothful, 'it was all grown over with thorns, and *nettles* had covered the face thereof' (Prov. xxiv. 31).

The word here translated (rightly, it would seem) 'thorns,' as distinct from 'nettles,' is rendered 'nettles' in Isaiah xxxiv. 13 and Hosea ix. 6. The Revisers alter the first of these into 'thorns,' but leave the latter as in

the older version. Four species of nettle occur in Palestine, including the Small, the Roman, and the Common stinging nettle of our own islands.

THISTLE (Heb. חוֹחַ *choach*, דַּרְדַּר *dardar*; Gk. *τρίβολος*).

'Do men gather grapes of thorns, or figs of *thistles*?'—Matt. vii. 16.

In the present neglected state of the once well-cultivated land of Israel, thistles and knapweeds are as extensively represented as the various kinds of 'thorn' and 'brier.' They abound in all forms and colours in the inland plains and valleys, and overgrow the maritime level of Sharon. Lord Lindsay, riding across this fertile tract, saw 'thistles of the deepest hue and most luxuriant growth,' often overtopping his head as he rode. Amidst so many genera and species of these prickly and sometimes formidable flowers, it seems impossible to single out any special type as indicated in Old or New Testament references—the more so, as we do not know which of the existing forms were then restrained or suppressed by human industry, in places where now they are too conspicuous to be overlooked.

Thistle-like plants appear to be expressly mentioned, each time in association with 'thorns,' in the following: 'Thorns also and *thistles* shall it bring forth to thee' (Gen. iii. 18); 'the thorn and the *thistle* shall come up on their altars' (Hosea x. 8); 'that which beareth *briers* and thorns is rejected' (Heb. vi. 8); also in the passage above quoted from the Sermon on the Mount. The Greek word *τρίβολος*[1] (meaning a triple point) was applied to three kinds of plants at least, one being aquatic and another the *Centaurea calcitrapa*, or 'caltrops' of our cornfields—a Palestinian weed; but the meaning in the New

[1] So Virgil, 'Lappæ tribulique,' *Georg.* lib. i. 153.

Testament seems more general. The other word, חוֹחַ (*choach*), rendered 'thistle' in the A. V., occurs in Job xxxi. 40, 'Let *thistles* grow instead of wheat;' and in the parable of Jehoash, 'The *thistle* that was in Lebanon' (2 Kings xiv. 9; 2 Chron. xxv. 18); but in these cases the reference appears to be to some other spinous kind of plant. It may, however, denote one or more of the specially formidable Centaureas, such as Canon Tristram met with in Galilee, and through which it was impossible to make a way until the plants had been beaten down.

WORMWOOD (Heb. לַעֲנָה *laanah*, Gk. ἄψινθος).

'Behold, I will feed them with *wormwood*.'—Jer. xxiii. 15.

The plant familiarly known as WORMWOOD, from one of its medicinal applications, is the *Artemisia absinthium* of botanists. It belongs to the great Composite family (*Compositæ*), which includes our daisies and dandelions, camomiles, chrysanthemums, and thistles; and the genus *Artemisia* comprises many species remarkable for their intense bitterness. It is this property which gives significance to the passages of Scripture in which 'wormwood' is mentioned, and which are all of a figurative character. The 'Survey' enumerates seven species found chiefly on the sandy coast, or in other bare localities. *A. arborescens* is found on Mount Carmel, and *A. judaica* in the Southern Desert.

'Wormwood and gall' are in Scripture the types of bitterness—the bitterness of affliction, remorse, and punitive suffering. The Israelites were warned by Moses against secret idolatry, as 'a root that beareth gall and *wormwood*' (Deut. xxix. 18). In like terms Solomon warns the young man against licentious indulgence (Prov. v. 4). The prophet Jeremiah (ix. 15) is commissioned

to say, 'Behold, I will feed them, even this people, with *wormwood*;' and this is repeated in a subsequent chapter (xxiii. 15). The same prophet bewails the fulfilment of these predictions in the desolation which followed the capture of Jerusalem by the Babylonians: 'He hath filled me with bitterness, he hath made me drunken with *wormwood*;' 'mine affliction and my misery, the *wormwood* and the gall' (Lam. iii. 15, 19).

The mystic 'Star' of apocalyptic vision, which was called 'Wormwood,' is described as falling into the waters of the earth: 'and the third part of the waters became *wormwood*, and many men died of the waters, because they were made bitter' (Rev. viii. 11). In Amos vi. 12 it is said, 'ye have turned judgment into gall, and the fruit of righteousness into hemlock,' where the latter word should be 'wormwood,' as in other places. The modern church is familiar with the same idea through one of its most popular hymns:

> 'Sinners whose love can ne'er forget
> The wormwood and the gall,
> Go, spread your trophies at His feet,
> And crown Him Lord of all.'

The Greeks called this plant ἄψινθος or ἀψίνθιον, 'the undrinkable,' and distinguished several species by appropriate epithets; but they and the Romans used more than one kind in medicine, and *A. absinthium* is still included in our own *materia medica* as a tonic and aromatic. The *absinthe* drunk in France is prepared from two species; a third, familiarly called 'southernwood' or 'old man,' is much cultivated in cottage gardens for its agreeable odour.

CHAPTER VI.

PERFUMES AND MEDICINES.

THE productions now to be considered, though interesting in many respects, differ in some particulars from those noticed in the preceding chapters. They are, for the most part, vegetable extracts or secretions, and of foreign growth so far as the Jews were concerned, having been imported in ancient times from the Farther East, and conveyed by travelling caravans into Egypt and Southern Europe by way of Syria and Palestine. This circumstance is illustrated by the general similarity of the Hebrew and classical names. A few, but only a few, were indigenous to Canaan. As, however, these productions form a part of 'Bible botany,' though mostly excluded from the flora of Palestine and the adjacent countries, they demand a brief notice here on account of their former importance, and the value attached to them by the perfume-loving Orientals.

Of this last fact, Scripture affords both direct and indirect evidence; among the latter, the numerous words found in the Old Testament denoting 'incense,' 'spices,' 'ointments,' and 'perfumes,' and the ingredients of which these precious compounds were formed. They entered into the ritual of Divine worship, and the ceremonies of state, were used as articles of customary adornment, or of special honour or indulgence; they alleviated sickness

BALM OF GILEAD.

and suffering ; and were alike tokens of consideration for the living and affection for the dead.

The chief element in these preparations, whether for sacred or secular purposes, was olive oil (Deut. xxviii. 40; Micah vi. 15), the words 'oil' and 'ointment' being interchangeable. Probably myrrh ranked next in importance (Esther ii. 12). The 'ointment' of the New Testament is *μύρον*, the same word as the Hebrew מר *mor*, while *σμύρνα* denotes myrrh itself.

It was from Egypt, and not from Greece or Italy, that the Hebrews derived their knowledge of these productions. Indeed, they carried the knowledge with them to the land of their inheritance, through which the stream of commerce passed to the banks of the Nile; for at a period earlier than the Exodus, a trade with India and the Far East, through Arabia, had been established (Gen. xxxvii. 25). We know moreover, both from history and the monuments, that the Egyptian people delighted in perfumes as well as in flowers, as articles of luxury and festive enjoyment. Guests were not only decked with garlands, but also anointed by attendants with sweet-scented ointments poured from vases of glass, alabaster, or porcelain. The apartments were also filled with the perfume of myrrh, frankincense, and other aromatics.

Incense, composed of myrrh, resin, and other ingredients, was presented to 'all the gods on all important occasions,' and odoriferous substances were enclosed within the bodies of animals offered in sacrifice. The use of spices, such as cinnamon and myrrh, in the process of embalming, as among the agents employed to counteract decay, is also a well-known fact. This duty was performed under the superintendence of the medical class, for Egypt is regarded as the cradle of the healing art.

'The *physicians* embalmed Joseph,' and as students of the human frame and its disorders they would be the first to form a *materia medica*. 'O virgin, the daughter of Egypt,' the prophet Jeremiah exclaims, '*in vain shalt thou use many medicines*, for thou shalt not be cured' (ch. xlvi. 11). Job says of his friends, 'Ye are all *physicians* of no value' (ch. xiii. 4), another evidence of Egyptian elements in that ancient poem, side by side with the 'behemoth' and 'leviathan' of the Nile. The fame of those learned predecessors of Galen and Hippocrates reached to Persia on the one hand, and to Rome on the other; and Homer makes Helen ascribe her knowledge of drugs of sovereign value to an Egyptian queen[1].

These facts explain and illustrate many allusions in the Old Testament to such products of the East as were used by the Hebrews long before Rome had been shorn of her early strength and simplicity. The 'apothecary's art,' first named in the Book of Exodus (xxx. 25, 35) in connexion with the 'incense' and 'holy anointing oil' of the Tabernacle, probably had its rise in the duties of religious worship, just as the Greeks anciently dedicated flowers to the gods.

Centuries before the reverent piety of the Jewish rabbi embalmed the body of the crucified Saviour with a profusion of 'myrrh and aloes,' 'as the manner of the Jews' was 'to bury,' King Asa had been laid to rest in a couch 'filled with sweet odours and divers kinds of spices prepared by the apothecaries' art,' while 'a very great burning' of like perfumes 'was made for him' (2 Chron. xvi. 14). A 'son of one of the apothecaries' is mentioned by Nehemiah (iii. 8) among those who returned from the Babylonish captivity.

[1] *Odyssey*, lib. iv.

From the allusions in the Gospels we find that in the obsequies of the dead, at least those of the wealthier classes, the custom was to anoint the body with ointments, and then to wrap it in folds of linen with aromatic spices (cf. Matt. xxvi. 12; Mark xvi. 1; Luke xxiii. 56; John xix. 39, 40).

As articles of luxury, ointments and perfumes belong chiefly to the period of the Jewish monarchy, and of course to later times, such as those of the New Testament. Before Solomon's reign, the anointing of the person seems to have been limited to the application of olive oil, as befitted those simpler days. 'Thou shalt have olive trees, but thou shalt not anoint thyself with the oil,' is the language of Moses in the Book of Deuteronomy (xxviii. 40). So Ruth, David, and others are spoken of (Ruth iii. 3; 2 Sam. xii. 20; Psalm xxiii. 5, &c.). In the Proverbs, and in succeeding writings of the Old Testament, allusions to the use, and still oftener to the abuse, of perfumes and ointments are not infrequent (see Psalm cxxxiii. 2; Prov. vii. 17; xxvii. 9, 16; Eccles. vii. 1; Song of Solomon i. 3; iii. 6; iv. 10; Isaiah lvii. 9; Amos vi. 6). In the New Testament these precious compounds appear among the gifts bestowed upon the Saviour by grateful affection, and finally in the Book of Revelation as part of the merchandise of the mystic Babylon (Luke vii. 37; Matt. xxvi. 7; Rev. xviii. 13).

While, however, the existence of 'physicians,' as a class, is distinctly recognized in Scripture, the references to specific medicines and medicinal applications are too few and slight to afford any definite information. But it would seem that they resembled the agencies now in use in Eastern countries. Oil, ointment, a mixture of oil and wine (as in the parable of the Good Samaritan), balm of

Gilead, poultices of figs, wine as a restorative, wine and myrrh as an opiate, and the leaves of trees (Ezek. xlvii. 12; Rev. xxii. 2), appear to be the chief allusions to medicinal appliances, internal or external. But others were doubtless in use both in Old and New Testament times.

Both the Greeks and the Romans indulged in the use of perfumes; the former from a very early period, the latter not until the rude simplicity of the earlier republic had disappeared before advancing wealth and refinement, and the way prepared for the degrading Sybaritism of imperial times. Homer's feasts are primitive even to rudeness, but his heroes and heroines are anointed with perfumed ointments. Guests were supplied with perfumed soap for washing, both before and after a meal; oil was a necessary adjunct of the gymnasia, and it was used in funereal observances both before and after the burning of the corpse.

Both Greeks and Romans had their perfume and spice boxes and bottles (*alabastra*), and the wealthier among them carried their caskets about with them, as is done in India at the present day[1]. Among the Romans ointments were used in place of soap, until the introduction of the latter; they were applied before and after bathing, and the bathers' garments were scented. For these preparations extracts of native flowers were employed, or costly Oriental ingredients kept in bottles of stone or precious metal. The ashes of the dead were also mixed with scents; while at the obsequies of an emperor, incense, spices, and fragrant herbs formed part of the funeral pyre.

In the numerous allusions to these vegetable sub-

[1] It has been suggested that the 'ivory palaces' of Psalm xlv. 8, and the 'tablets' (R. V. 'perfume-boxes') of Isaiah iii. 20 alike denote these caskets.

stances in the writings of classical poets they are frequently described as 'Assyrian' (i.e. Syrian), 'Arabian,' or 'Sabæan,' indicating the direction in which they were brought to Italy. Persia and India are also mentioned.

ALOES (Heb. אֲהָלִים *ahalim*, אֲהָלוֹת *ahaloth*; Gk. ἀλόη).

'Myrrh and *aloes*, with all the chief spices.'—Song of Solomon iv. 14.

The ALOES of Scripture bear no relation to the flowering aloe of modern gardens, but represent an odoriferous wood which from a remote period has been known and used in the East both for sacred and common purposes. This 'aloes wood,' corrupted into 'eagle wood' (*Lignum aquilæ*), and called in Numb. xxiv. 6, 'lign aloes,' is yielded by two different kinds of trees; the one (*Aloexylon agallochum*) a native of Cochin China, the other (*Aquilaria agallochum*) is indigenous to India. The latter is most probably the one known to the ancient Hebrews, and its Malayan name *agila* is reproduced as *ahalim*. This tree reaches a height of more than a hundred feet, and is said to yield its fragrance when decay has commenced. To the same species Rosenmüller apparently refers when he says, 'The Indians regard the tree as sacred, and never cut it down without various religious ceremonies. The people of the East suppose it to have been one of the indigenous trees of Paradise, and hence the Dutch give it the name of Paradise-tree.' It is mentioned by Dioscorides, who says it was a spotted odoriferous wood which was brought from India and Arabia. The Orientals burn this or some similar wood in their apartments, as a mark of honour to visitors.

Aloes are referred to four times in the Old Testament, and once in the New. Balaam compares the tents of the

Israelites to 'lign aloes' by the river Tigris or Euphrates. Here the allusion may be to some aromatic shrub indigenous to Babylonia, just as 'myrtle' and 'myrrh' were sometimes denoted by the same word. In Psalm xlv. 8; Song of Solomon iv. 14; and Proverbs vii. 17 aloes are associated with myrrh as agreeable and attractive perfumes; while in the New Testament they appear but once, and then in connexion with the burial of the Saviour by Joseph and Nicodemus.

The fullest notice of the plants above mentioned will be found in Kitto's *Cyclopædia* (art. *Ahalim*), by the late Dr. Royle.

Balm (Heb. צְרִי *tseri*, צֳרִי *tsori*).

'Their camels bearing spicery and *balm*.'—Gen. xxxvii. 25.

This far-famed product of Eastern Palestine is mentioned by both Jewish and classical writers. Josephus informs us in his *Antiquities* and *Wars of the Jews* that the balm or balsam tree grew in the region round about Jericho, of which it was the most costly and valued product; that the secretion was obtained by making an incision in the plant with a sharp stone; and that it was the general belief that the original root from which these trees had sprung was the gift of the Queen of Sheba to Solomon. But it seems that even in patriarchal times balm was exported from Gilead to Egypt, where, at a later period, it is said to have been cultivated, especially at Heliopolis, the ancient On. Jacob deemed it an acceptable gift to his unknown son (Gen. xliii. 11). In Ezekiel's day (ch. xxvii. 17) the Israelites took this product of their land into the markets of Tyre. The prophet Jeremiah mentions balm three times, twice

locating it in Gilead: 'Is there no *balm* in Gilead?' 'Go up to Gilead, and take *balm*;' 'Take *balm* for her pain' (ch. viii. 22; xlvi. 11; li. 8). In the tropical valley of Jordan, and on both sides of the river, this celebrated shrub grew, and was diligently cultivated, at whatever time it may have been originally introduced. It is indigenous in Arabia and Nubia. The genus *Balsamodendron*, which yields both balm and myrrh, includes several species; from one (*B. opobalsamum*), or probably from more than one, the Balm of Gilead, or *Opobalsamum*, is obtained by incisions in the bark. Inferior extracts are obtained from the branches, by boiling and skimming, and from the fruit, by pressure. These shrubs or trees, which bear winged leaves and small flowers, are alluded to by Pliny and Diodorus, and by the botanists Theophrastus and Dioscorides[1]. Alexander the Great is said to have recognized the value of the precious gum, and Vespasian and Titus caused specimens of the trees to be exhibited at Rome. They also placed the gardens under proper supervision, and these plantations existed until the time of the Crusades. The balsam tree, however, like the date palm, has long since disappeared from Jericho and Gilead.

Bdellium (Heb. בְּדֹלַח *bedolach*).

'There is *bdellium* and the onyx stone.'—Gen. ii. 12.

'The colour thereof [of the manna] as the colour of *bdellium*.'—Numb. xi. 7.

There has been much dispute as to the meaning of the Hebrew word translated Bdellium, some interpreters placing it in the mineral kingdom and identifying it with the pearl, while others regard it as a gum resin. It is

[1] So Virgil, *Georg.* lib. ii. 118, 'odorato sudantia ligno Balsama.'

mentioned only in the passages above quoted, and while we infer from comparing Numb. xi. 7 with Exod. xvi. 31 that bdellium was white in colour, we do not know with any certainty where the land of Havilah was situated. In default of ampler evidence, we may accept the statement of Josephus, who says of the manna, that it was 'like in its body to bdellium, *one of the sweet spices*[1].' If so, we may group it with balm and myrrh as the produce of an Indian species of *Balsamodendron*, and which Moses would have become acquainted with in Egypt.

CALAMUS, 'SWEET CANE' (Heb. קָנֶה *kaneh*, Gk. *κάλαμος*).

'Take of sweet *calamus* two hundred and fifty shekels.'—Exod. xxx. 23.
'*Calamus* and cinnamon, with all trees of frankincense.'—Song Sol. iv. 14.
'Thou hast bought Me no *sweet cane* with money.'—Isaiah xliii. 24.
'Incense from Sheba and the *sweet cane* from a far country.'—Jer. vi. 20.
'Cassia and *calamus* were in thy market.'—Ezek. xxvii. 19.

The above passages are cited together because they give all the information to be gathered from Scripture on the subject; CALAMUS is but Latin for 'cane'—the Hebrew *kaneh*, and the latter word occurs in all of them. It is the ordinary term for reed or cane, but its specific character and application are indicated by the context. All, however, that we know of Calamus, Sweet Calamus, or Sweet Cane amounts to this, that the 'sweetness' was sweetness of *odour* and not of *taste*, and that it was brought from a 'far country,' presumably from Sheba or some part of Arabia. Its native source and locality are unknown, and Josephus only says, 'It is a sort of sweet spice.' Such fragrant grasses as the *Andropogon* of India, and the Sugar-cane, have been suggested; but the

[1] *Antiq.* lib. iii. ch. 7, § 6.

Calamus was aromatic, and no grasses are exported from India (according to Sir G. Birdwood) for such purposes. Both Pliny and Dioscorides, however, mention an 'aromatic cane' as growing in India.

Sir G. Birdwood is disposed to identify the above with the root of a composite plant known as Costus or 'Indian orris' (*Aucklandia costus*), a native of the highlands of Cashmere.

CASSIA (Heb. קִדָּה *kiddah*, קְצִיעוֹת *ketsioth*).

CINNAMON (Heb. קִנָּמוֹן *kinnamon*, Gk. κιννάμωμον).

'Of *cassia* five hundred shekels.'—Exod. xxx. 24.

'*Cinnamon*, and odours, and ointments.'—Rev. xviii. 13.

The above substances are connected by close botanical affinities, being produced by nearly the same trees, and applied to the same uses. Both belong to the class of aromatic barks, and both are familiar spices in our own country, though CINNAMON is more frequently recognized than CASSIA.

Although products of the Far East—the island of Ceylon, Cochin China, and the Malabar Coast—they have been known from a remote period in Palestine, and probably in Egypt also. They are mentioned by Herodotus as Arabian products—an error common to Greek writers in relation to plants which reached Europe *viâ* the Arabian ports—and he gives an absurd account of the mode of collecting each.

Cinnamon and cassia belong to the family which includes the bay tree, the camphor tree, and other aromatics. The former is the bark of *Cinnamomum Zeylanicum*, a native of Ceylon, where it grows to a

considerable size. The leaves are smooth and leathery, and strongly ribbed, and the flowers are grouped in clusters of greenish white. When the tree is about five years old the branches are lopped, in the summer months, and the bark peeled off in longitudinal strips and rolled up—the smaller quills within the larger ones.

CASSIA is native in Cochin China, and is the bark of *C. aromaticum*; but inferior cinnamon is largely exported as cassia, which naturally is of a thicker substance. Both these products are strongly aromatic, but the scent of cassia is more pungent and less agreeable than that of cinnamon. The odour-loving Orientals would probably distinguish readily between them. They are employed in medicine as stimulants and carminatives, in various forms, such as oil, tincture, and aqueous solution.

Cinnamon and cassia are enumerated in Exodus xxx. 23, 24, among the 'principal spices' in the directions given for compounding the 'anointing oil' of the sanctuary. The garments of the royal bride in Psalm xlv. 8 are said to 'smell of myrrh, aloes, and *cassia*,' or 'cassias,' perhaps cinnamon and cassia being united in the word *ketsioth*, which resembles *kiddah*, the term used elsewhere. 'Cinnamon' is among the perfumes mentioned in the house of the 'strange woman' of Proverbs vii. 17, and among the exotic plants growing in the 'garden enclosed' described in the fervid imagery of the Song of Solomon (iv. 14). We may infer that many such foreign plants were introduced by Solomon, though they probably died out in the course of succeeding and less tranquil reigns. It is named but once in the New Testament, as part of the merchandise of 'Great Babylon' (Rev. xviii. 13).

CAMPHIRE (Heb. כֹּפֶר *kopher*).

'As a cluster of *camphire* in the vineyards of Engedi.'—Song of Solomon i. 14.

'Thy plants are . . . *camphire* with spikenard.'—Ib. iv. 13.

With these passing and emblematic references in one short poem, begins and ends all Biblical recognition of a plant 'universally esteemed in Eastern countries,' and which 'appears to have been so from the earliest times, both on account of the fragrance of its flowers, and the colouring properties of its leaves.'

It is the shrub known to the Arabs as *al-henna,* the HENNA PLANT of travellers and the *κύπρος* of Greek writers. Pliny says that the best kind grows on the banks of the Nile; the second best at 'Ascalon of Judea;' the third, and most sweet in odour, in 'Cyprus,' from which its Greek name was derived. This circumstance will explain the marginal readings in the Authorized Version of the above passages, which have 'or *cypress*;' not, however, alluding to the noble conifer properly so called, but to the plant now under consideration. It is the *Lawsonia alba* of botanists, a tall shrub six or eight feet in height, with pale green foliage, and clusters of white and yellow blossoms, which emit a delightful perfume. It grows in Egypt and Nubia, and also in Arabia, and is still to be found near the Dead Sea at Engedi, as in Solomon's time. It is one of the most favourite flowers and cosmetics of the Eastern world, from India (of which country it is a native) to Turkey. Houses are perfumed with it, the blossoms are presented to guests as a marked compliment, and women use the henna flower as a personal ornament. In India the blossoms are offered to the Buddhist deities.

The tropical Jordan valley would afford a congenial climate for the growth of the *Lawsonia*, which needs considerable care for its successful culture, even in Egypt, where it was known and used in ancient as it is in modern times.

But the henna plant has been applied to another purpose throughout the East, viz. as a dye for the hands, feet, and nails. The leaves are dried and pounded and made into a paste, which when applied to the skin produces an orange or reddish tint, which is much esteemed. The practice prevails from the Ganges to the Mediterranean, and in some parts is applied to the hair of the beard and to the manes and tails of horses. The tint is deepened to black, if desired, by the application of indigo. Evidences of this widespread and, to our taste, repulsive fashion exist in the appearance of the nails of some of the Egyptian mummies. But no reference to it occurs in Scripture, unless, as Dr. Harris has suggested, the phrase in Deut. xxi. 12 '*pare* her nails' may bear that meaning.

The *Lawsonia* belongs to the same order of plants (*Lythraceæ*) as the 'loosestrifes' of our river-sides.

Frankincense (Heb. לְבוֹנָה *lebonah*, Gk. λίβανος).

'They presented unto Him gifts: gold, and *frankincense*, and myrrh.'—Matt. ii. 11.

The English name of this celebrated perfume, the odour of which arose continually from Hebrew altars, and which was deemed a fitting gift to One who was 'greater than the temple,' is somewhat misleading. One would suppose it to be, like ordinary incense, a compound, whereas it is a simple ingredient, as is evi-

dent from Exod. xxx. 34, 35, where it is ordered to be mixed with 'stacte, and onycha, and galbanum,' and from Song of Solomon iii. 6 and iv. 6, 14, where a 'hill' and 'trees of frankincense' are mentioned.

Nor does our Authorized Version avoid the same confusion of the element and the mixture; for in *six* passages—three in Isaiah (ch. xliii. 23, lx. 6, and lxv. 3) and three in Jeremiah (ch. vi. 20, xvii. 26, and xli. 5)—the word *lebonah*, 'frankincense,' is translated incense. All these renderings, however, are corrected in the Revised Version.

FRANKINCENSE is the produce of a tree known as the *Boswellia thurifera*, and of several allied species or varieties. This is a tree of large size, allied to the turpentine or terebinth, and to those yielding balm and myrrh. The gum which exudes from it, known by the scarcely altered name of *olibanum*, is in roundish or oblong drops, of a pale red or yellow colour, and which exhale a strong balsamic odour when warmed or burnt. The Scripture references to frankincense, though somewhat numerous, admit of very simple classification. Out of some two and twenty, sixteen have to do with its use in religious worship; twice it is spoken of as a tribute of honour—to Israel and to Israel's infant Lord; once as an article of merchandise; and thrice as the product of the royal 'garden' of the Canticles. Probably it was almost exclusively employed in the service of the Tabernacle and Temple until Solomon's reign.

In Isaiah lx. 6 it is said, 'All they from *Sheba* shall come; they shall bring gold and *incense*' (i.e. frankincense). In literal accordance with this statement, and with the all but unanimous testimony of ancient authors, and of such modern naturalists as Bochart and Celsius,

the latest researches into the geographical distribution of the *Boswellias* and their resinous products have satisfactorily shown that Arabia is the chief source of the olibanum of commerce, though there is also an African kind exported into Southern Europe. In spite of the doubts which recent authors of repute have expressed on this point, Sir G. Birdwood's researches may be considered to have set the matter at rest, and restored to the 'soft Sabæans' the claim allowed by Virgil and other classic poets, of being the producers of the fragrant gum. As already hinted, Western writers often mistook for native Arabian products those which simply passed through that ancient emporium. But 'as to frankincense, it is always mentioned as a foreign production in Hindoo books, and to this day the people in the bazaars of Western India tell you that it comes from Arabia.'

The writer just quoted has treated the subject in an interesting and exhaustive manner in Cassell's *Bible Educator*, vol. i. pp. 328, 374, &c., where several species of *Boswellia* are figured, and a map of their Arabian habitat is given.

Frankincense is not mentioned by Homer, and seems not to have become known to the Greeks till a later period, when it was largely employed in the obsequies of the wealthier citizens, as it is in our day with high-caste Hindoos. It was expressly excluded, however, from the aromatics used by the Egyptians for embalming. The Greeks gave the similar name of λιβανωτίς to the fragrant rosemary, and both plants contribute to the folk-lore of later time—the rosemary being burnt in the chambers of the sick and carried at funerals, while frankincense was deemed a counteractive to the influence of witches—either from its association with the child Jesus,

or from its powerful odour, or both. The former was deemed a specific in certain diseases; and the latter was applied externally in plaisters and given internally as a stimulant, but is now rarely used.

GALBANUM (Heb. חֶלְבְּנָה *chelbenah*).
ONYCHA (Heb. שְׁחֵלֶת *shecheleth*).
STACTE (Heb. נָטָף *nataph*).

'Take unto thee sweet spices, *stacte*, and *onycha*, and *galbanum*.'—Exod. xxx. 34.

It savours of presumption to pronounce on the precise meaning of names used, like the above, in but a single passage of Scripture, without strong confirmatory evidence from language, history, or geography. In the present case such evidence is meagre enough. The three gums or spices above grouped together are similarly associated in the Apocrypha (Ecclus. xxiv. 15), where in evident parallel to the passage on Exodus it is said, 'I yielded a pleasant odour like the best myrrh; as *galbanum* and *onyx* and *sweet storax*.' This may be taken as a Jewish comment. About GALBANUM this much seems clear, that the Greeks borrowed the name from the Hebrews, and that it came to them through Syrian commerce.

Gum galbanum is a waxy, brownish-yellow exudation, obtained from more than one kind of umbelliferous plant resembling fennel, either naturally or by incision. It is imported from Italy and the Levant, but the precise plant which yields it has not been satisfactorily determined. Dioscorides and Pliny both mention galbanum, and say that it was from Syria—a somewhat vague 'geographical expression' with ancient writers. Its odour is powerful, and it is used in medicine, though less

esteemed than formerly. Columella speaks of 'galbanean odours,' and we are told that this gum was mixed with other substances to produce a fragrant ointment. Virgil recommends his farmer to drive away snakes from the folds by the fumes of galbanum[1], from which and from other allusions we may infer that galbanum was not an agreeable perfume when used alone.

ONYCHA is generally supposed, though the point is uncertain, to be the *operculum* (or covering to the mouth) of a species of mollusk (*Strombus*) living in Eastern seas. The shells are used in large quantities for making cameos, and the *operculum* is pounded and mixed with aromatic substances. It is the 'odoriferous shell' of the ancients, but obviously does not come under the cognizance of the botanist.

STACTE is the Greek translation of the Hebrew name, which signifies 'a drop.' The passage from the Apocrypha makes it equivalent to 'sweet storax,' a resin yielded by *Storax officinale*, a plant allied to that producing gum benzoin. The storax of commerce is not now obtained from this species; and in Southern Europe it yields no resin, but it is said to do so in Asia Minor; and we may conclude that it did so in Palestine, of which it is a native. A plant known as *Liquidambar orientale*, found in Cyprus and Anatolia, yields the officinal storax; this species grows in Palestine, but is considered not to be truly native there.

MYRRH (Heb. מֹר *mor*, לֹט *lot*; Gk. *σμύρνα*).

'All thy garments smell of *myrrh*.'—Ps. xlv. 8.

This, one of the most familiar of aromatic products in both ancient and modern times, requires no identification,

[1] *Georg.* lib. iii. 415; see also iv. 264.

the name and the substance having been handed down through the ages. As already stated, it is the gum of a species of *Balsamodendron*, the genus producing the fragrant Balm, and perhaps also the Bdellium, of the Old Testament. MYRRH is yielded—whether by the recognized species only (*B. myrrha*) or not, cannot positively be stated—in both Arabia and India; that of commerce is usually imported from Bombay. It has also been met with in Abyssinia. The gum exudes from wounds made in the bark, and appears as lumps of irregular size and shape, of a reddish brown colour, and having an aromatic smell and bitter taste. The tree is low and scrubby, the branches stiff, stout, and spinous, the leaves triple, and the fruit a small 'plum.' It is found growing in Arabia among different kinds of Euphorbias and Acacias.

MYRRH.

Myrrh was anciently used as a perfume, a medicine,

and a preservative agent in embalming the bodies of the dead; and had a reputation equal to that of any aromatic known. It was supposed to impart strength, as well as to lessen pain, and entered as an ingredient into many medicinal compounds. The tincture, as is well known, is still employed both internally and externally, but is reckoned of very minor importance.

Unlike frankincense, it appears in Scripture almost entirely in its secular applications. It is mentioned once as an ingredient in the 'anointing oil' for the Tabernacle (Exod. xxx. 23); it was presented by the Magi to the infant Saviour; it was offered to and refused by Him when, bearing in His body our sins on the cross, He passed through His last agony; and it formed part of the spices in which His body was laid for the few hours preceding His glorious resurrection (Matt. ii. 11; Mark xv. 23; John xix. 39). The remaining allusions to myrrh are exclusively in its character as an agreeable perfume, and occur chiefly in the Canticles. The latter references (ch. v. 5, 13), and that in the Book of Esther (ii. 12), imply a preparation termed 'oil of myrrh,' which we may infer consisted of the resin combined with olive oil, like the 'anointing oil' of the Sanctuary, though of a less complex character.

A different Hebrew word לֹט (*lot*) is incorrectly translated 'myrrh' in Gen. xxxvii. 25 and xliii. 11, in the enumeration of the wares carried by the Ishmaelite traders through Palestine to Egypt, and of the gifts sent by Jacob to Joseph. There can be little doubt that the *lot* of the Hebrews is the λάδανον of the Greeks and the *ladanum* of the moderns. It is a resin yielded by a species of Cistus (*C. villosus*) found in Palestine, Cyprus, and other parts of the Mediterranean area. It was

formerly much esteemed, but is now scarcely used, except by the Turks, who value it as a perfume and a fumigator. The plant was not introduced into Egypt until a much later date; hence the consistency of the gift as an offering to the Egyptian ruler.

NARD, SPIKENARD (Heb. נֵרְדְּ *nerd*, Gk. *νάρδος*).

'Then took Mary a pound of ointment of *spikenard*, very costly.'—John xii. 3.

Probably this compound, the gift of the sister of the wealthy Lazarus of Bethany to her Teacher and Lord, was among the most valuable of the many costly unguents procured by ancient nations from the East. Judas valued the quantity thus expended at some nine or ten pounds sterling, and among various corroborative instances may be quoted that of the poet Horace, who offers his friend Virgil a *cadus* (say thirty-six quarts) of wine for a small onyx box of spikenard[1]. Dioscorides mentions seven ingredients, including myrrh and balm, and of course oil, as composing the 'ointment.' The NARD or 'nardus' from which this perfume was named is the produce of an Indian plant, of the tribe which furnishes our garden valerian, and grows at Nepaul and Bhootan at great elevations. It is small and herbaceous, and has been compared to 'the tail of an ermine' from its downy branches and leaves, and the fibrous covering of the roots. It is in the latter that the odoriferous property resides. Like our own valerian, Nard is and was prized as a medicine as well as a perfume. Botanists have given it the name of *Nardostachys jatamansi*, the latter being its Hindoo name, while the former is equivalent to *spica nardi* or spike-nard, probably so called because the plant

[1] *Carm.* lib. iv. od. 12.

had 'many spikes from one root.' The smell which it exhales would not be deemed altogether agreeable from a Western standpoint, but evidently the standard was different in the East, and even in Southern Europe, in former times. 'While the king sitteth at his table, my spikenard sendeth forth the smell thereof' (Song of Solomon i. 12). The alabastron of ointment brought into Simon's house by the repentant sinner as a gift to Christ, was probably a valuable compound similar to that subsequently offered by Mary of Bethany. No doubt the Indian nard was conveyed to Italy through Phœnicia, as the identity of the Hebrew (or rather Persian) and Greek names suggests. We thus find Horace, in one of his more convivial odes, inviting his friend to drink with him, 'perfuming' their 'grey hairs' with roses and 'anointing' themselves 'with Assyrian nard[1].' 'Syrian nard' is also spoken of by Tibullus.

There are no other specific references to spikenard in the Bible than those already cited, together with Song of Solomon iv. 13.

Saffron (Heb. כַּרְכֹּם *karkom*).

'Spikenard and *saffron*.'—Song of Solomon iv. 14.

This now comparatively neglected plant was known in the East in remote ages, and brought to Europe as an exotic of value, though difficult to rear. It has been known in England for several centuries, and was grown round Saffron Walden and in other localities. One smoke-pervaded spot in the heart of London still bears the name of 'Saffron Hill.' It is a somewhat expensive product, the economic value residing in the *stigmas* of

[1] *Carm.* lib. ii. od. 11.

the flower, 60,000 of which are needed to make one pound of saffron. It is now chiefly imported for its bright yellow dye, though occasionally employed also in medicine; but on the Continent and in the East it is still an ingredient in cookery. Both in Asia and Europe, however, its reputation has much declined, since the Arabs introduced its cultivation into Spain as an article of commerce, and bequeathed to us the modern title of *zaffer* or SAFFRON.

A much older name is that which the Saffron Crocus (*C. sativus*) and its allies bear in our gardens;—the *crocus* of the Romans is the κρόκος of the Greeks, and the *karkom* of the Semites, through whom European nations first became acquainted with the plant. We have no means of judging what amount of importance was attached to it by the Jews, as it is only named once in Scripture, as above quoted, among the odoriferous plants in the gardens of Solomon. But to the nations of Eastern Asia, its yellow dye was the perfection of beauty, and its odour a perfect ambrosia. 'Saffron yellow shoes formed part of the dress of the Persian kings,' says Professor Hehn, 'which was copied from the older Babylonio-Median costume.' Greek myths and poetry exhibit to us an extravagant admiration of the colour and the perfume. Homer sings 'the saffron morn;' gods and goddesses, heroes and nymphs and vestals, are clothed in robes of saffron hue, and fair maidens are called 'saffron-haired,' where we should say 'golden-tressèd.' Large quantities were imported into Italy from the East; and the saffron of Lydia, Cilicia, and Cyrene was specially prized. The scent was valued as much as the dye; saffron water was sprinkled on the benches of the theatres, the floors of banqueting halls

were strewn with crocus leaves, and cushions were stuffed with the same material. But the glory has departed from the fair and fragrant flower as from the lands wherein its praises were sung.

Nor need we indulge in sentimental regrets; the course of pagan faith and culture was a downward progress, and blighted some of the fairest gifts of heaven:

> 'The trail of the serpent was over them all;'

and tree and shrub and flower were degraded into auxiliaries of sensual indulgence and riotous prodigality. A purer faith has wrought out a nobler civilization, and restored to them, at least in some degree, their first and higher ministry, as messengers of God to man.

CHAPTER VII.

EMBLEMATIC USE OF PLANTS IN SCRIPTURE.

THE symbolic meanings and associations of trees and shrubs, flowers and herbs, deserve and have secured a literature of their own[1]. They appear in every age and nation of which history has preserved a record; and are exemplified alike in national customs and religious rites, in myth and in fable, in the heraldic badges of the noble and the humble folk-lore of the peasant,—touching by their silent significance some of the deepest emotions of the heart.

It has pleased the Author of Revelation to employ not a few forms of plant-life as vehicles of Divine instruction, as ritualistic symbols, prophetic types, or emblems of moral and spiritual truth. The preceding chapters have supplied numerous examples of such illustrative allusions, with the passages of Scripture in which they occur. Around these inspired teachings a tangled web of Jewish and mediæval legend has grown up from age to age, like the *lianes* in a tropical forest—luxuriant and often beautiful, but tending to obscure and sometimes to impair the living growths which they have overspread. It is with the simpler and older truths alone that we are now concerned, and only a few of these can be enumerated.

[1] See, for illustrations, the learned and interesting work, *Flowers and Flower Lore*, by Rev. H. Friend, F. L. S., and the numerous authorities therein cited.

It is remarkable that the earliest symbolic objects mentioned in the Book of Genesis should have been trees—'the tree of life in the midst of the garden, and the tree of knowledge of good and evil' (ch. ii. 9, 17, &c.). Of the numerous phases of this primitive belief, that of the Assyrians and Babylonians is the most interesting and perhaps the most ancient. 'The tree of life,' often depicted on the monuments, 'played a great part in the religions' of those nations, 'and was understood too by the Babylonians to be the symbol of immortality[1].' This tree was regarded by them as a Vine, but the Date Palm, Fig, and probably the Cedar, were also anciently identified with it. We are more interested to note that in the Book of Proverbs 'the wisdom which is from above' is represented as 'a tree of life to them that lay hold on her' (ch. iii. 18); and again (ch. xi. 30), 'The fruit of the righteous is a tree of life.' At the close of the New Testament canon the same s mbol occurs among the rewards to be bestowed on 'him that overcometh,' even 'to eat of the tree of life, which is in the midst of the Paradise of God;' and in accordance with this promise, it appears 'in the midst of the street' of the New Jerusalem, yielding varied fruits month by month, and bearing leaves for the healing of the 'sin-stricken nations' (Rev. ii. 7; xxii. 2).

In connexion with the wanderings of Abraham, we meet with an incident which, though trivial in itself, derives significance from later history. The patriarch 'planted,' we are told, 'a *tamarisk* (A. V. 'grove') in Beersheba, and called there on the name of the LORD'

[1] See Mr. Budge's *Babylonian Life and History*, pp. 144, 145, 153; *Fresh Light from the Ancient Monuments*, by Professor Sayce, pp. 25, 26 (R. T. S.).

(Gen. xxi. 33). The innocent custom thus commenced, of finding a sanctuary beneath the spreading shade of trees, and suggested perhaps by an earlier incident (ch. xviii. 1, 5, 8), seems soon to have been perverted to idolatrous and degrading uses. Hence the commands to destroy such places, where the Canaanites had 'served their gods... under every green tree;' and the prohibition against 'planting an *asherah* of any kind of tree beside the altar' of God (Deut. xii. 3; xvi. 21); the term *asherah* being here extended to the groves in which such symbolic pillars were erected (see *ante*, pp. 33, 34). The writings of the prophets Isaiah, Jeremiah, and Ezekiel afford painful evidence of national disobedience to these precepts.

The analogies between the life of the plant and that of man are so numerous and striking that the poetry of all nations and ages abounds with such illustrative allusions. In the symbolism of the Old and New Testaments, *trees* are specially representative of human life and character in their various aspects and manifestations, whether good or evil, whether in the nation or the individual. Life, feeble in its commencement, gradual, progressive, aspiring, full of promise, yielding foliage, blossom, and fruitage; or arrested, perverted, and degenerating; issuing in blessing or in bane;—the similitudes thus suggested recur again and again in some of the most forcible and impressive utterances of the Inspired Volume.

Each tree of forest or orchard presents some characteristic phase of human personality. The *Oak* and the *Cedar* are types of vegetative growth—of calm strength and majesty, of silent but enduring vitality. The Oriental conqueror is as a cedar in Paradise; the warlike

Amorite is like the lofty oak. But there is a nobler strength than that of the sword, and with this the righteous is endued; 'he shall grow like a cedar in Lebanon,' and in the midst of outward misfortunes shall live like the oak whose leaves have been shed, and put forth new verdure with the returning spring (Ps. xcii. 12; Isaiah vi. 13).

The *Palm tree* is the Oriental type of vegetable beauty—indeed, it is so recognized by the scientific observer; and is presented in Scripture as emblematic of the grace and symmetry of a godly character. But it is also a type of exuberant life—'the righteous shall flourish (literally, 'break forth') like the palm tree,' putting forth its myriad blossoms, the heralds of rich and precious fruit. Often growing in a desert waste, yet fed by unseen springs of water, it is veritably one of the fairest gifts of heaven, like those who exhibit 'the beauty of holiness' in the midst of 'this present evil world.' The oak and the cedar may awaken somewhat of awe and reverence; the palm wins only admiration, like the winsome life of a Daniel, a Mary of Bethany, or a Nathanael of Cana.

In the *Olive* we seem to have a type of consecrated usefulness. Of the varied uses of this commonest of Palestinian trees, enough has been said in preceding pages. Far inferior to the palm in stature and grace, it rivals or even excels it in varied utility, growing in situations where the former could 'flourish' no longer. It thus symbolized the Jewish Church—for a while 'a green olive tree, fair, and of goodly fruit;' and the righteous man was compared to 'a green olive tree in the house of God.' Its oil was, in Old Testament language, made to 'honour both God and man,' signifying

special consecration to His service, and being a symbol also of joy and consolation, pointing forward in prophetic promise to Him who was to be known as MESSIAH, the CHRISTUS—anointed for His great redemptive work by that 'unction from the Holy One,' in which all His true followers participate.

In accordance with these analogies, the olive-branch was the symbol of peace and reconciliation, as the palm-leaf became the type of victory. The Prince of Peace agonized beneath the olives of Gethsemane, and from the Olive Mount He ascended to His mediatorial throne; as the Conqueror of sin and death He accepted the symbols of victory when He rode into Jerusalem.

> And they who with their Leader
> Have conquered in the fight'

are represented in apostolic vision 'with palms in their hands' before the throne.

But in Scripture no tree or plant is so rich and varied in its spiritual teachings as the *Vine*; and this, in part at least, for the reason assigned by the prophet Ezekiel (xv. 2–5): 'What is the vine tree more than any tree, or than a branch which is among the trees of the forest? Shall wood be taken thereof to do any work? . . Behold, it is cast into the fire for fuel.' In other words, the sole purpose of the Vine is the production of fruit. If this fails, the plant is fit only for fuel; it cannot be utilized like the palm and olive in other ways. The Vine thus became a fit yet solemn and suggestive type of the chosen people, brought out of Egypt and planted in a good land by the Divine Husbandman, who looked for it to bring forth grapes. The Jewish people grew into a powerful and civilized nation, but the supreme purpose of their election was that they might be a 'peculiar

people,' conservators and teachers of truth and righteousness. 'For the vineyard of the Lord of hosts is the house of Israel;' and this figure, which pervades the whole of the Old Testament, is affectingly applied by the Great Teacher in His parables in the New. In Himself only the ideal Israel was realized; hence He is set forth as the '*True* Vine,' and His disciples as the branches. Abiding in Him, they fulfil the one great purpose of their being, and bear 'much fruit.' In prophecy, the juice of the grape prefigures the blessings of the Gospel; and notwithstanding the festive associations of the vintage, the crushing of the fruit was emblematic of Divine judgments. But in the hands of Him who made all things new, the wine became a sacramental sign of that atoning blood, through which condemnation is exchanged for pardon, peace, and joy.

Turning to the converse aspect of plant-life, it is natural that alienation from God and disobedience to His law should be symbolized by the phenomena of unfruitfulness and degeneracy. Examples will recur to the mind of every Bible reader. The barren fig tree, yielding no return for the care bestowed upon it; the way-side fig, rich in leafage, but devoid of the fruit which that verdure implied; the olive, casting off its blossoms or its early fruit, and bringing none 'to perfection;' the vine, yielding only wild and worthless grapes, in spite of constant and assiduous culture, or withering and drying up, ready only for the burning;—the teaching of such plant-emblems is too striking and obvious to need exposition.

Repeated reference has been made in foregoing chapters to the prevalence of 'thorns' and 'briers,' and plants of a spinous growth, in the Land of Israel, and

various illustrative texts have been cited. It is well known that such formations (while not devoid of protective utility to the plants themselves) are due either to arrested development or degeneracy. Analogous processes prevail in the moral and spiritual world, as recent writers, notably Prof. Drummond, have ably pointed out. All sin is failure and imperfection; a coming short, a missing of the mark, as both the Hebrew and Greek languages teach us. All unrighteousness is degeneracy, a 'fall' from a higher to a lower level. Most appropriately therefore are alienation from God and disregard of His commands, whether by nations or individuals, typified in Scripture by vegetable products so useless and offensive to man. In the oldest of recorded fables, Jotham gave implicit praise to the vine, and olive, and fig tree, while the 'bramble' was made the type of contemptible and noxious weeds. The wicked, says David, 'shall be as thorns thrust away,' and discomfited in their assaults, 'quenched as the fire of thorns.' The withdrawal of Divine favour and protection in consequence of transgression is represented as the abandonment of field and altar to thorns, briers, and pestilent weeds. The land thus overgrown 'is rejected and is nigh unto cursing.'

It is remarkable that the first plant-emblem of the Jewish people as a whole was the 'burning bush' or 'thorn.' This was probably one of the desert acacias, as already suggested; and of similar material the boards and pillars of the Tabernacle were made. On this Dr. Hugh Macmillan remarks[1]: 'This tree is a stunted and shaggy *thorn-bush*. Out of the natural symbol of the curse God constructed the divine symbol of grace. In

[1] *The True Vine*, pp. 320, 321.

the midst of this thorny growth of the desert He appeared in a flame of fire to Moses, and gave him the blessing of Him that dwelt in the bush. In the midst of the Tabernacle . . He manifested His glory, and appointed His trysting-place with man. Out of the thorns of the wilderness grew the purple blossoms of the world's restoration.'

This figure, repeated by the prophets under various aspects, reminds us how the favoured race, once undestroyed in the midst of fiery perils and persecutions, became, for repeated apostacy and final rejection of the promised Deliverer, as 'thorns cut up' and made ready for fuel. Sin is itself the destroyer of the sinner. 'For wickedness burneth as the fire; it devoureth the briers and thorns.'

In the Saviour's teaching the same emblem is repeated and enlarged. The ungodly are still likened unto degenerate plants: 'Do men gather grapes of thorns, or figs of thistles?' But the heart encumbered with this world's cares and indulgences is also symbolized by the same abortive growth. 'Some' of the good seed of the Kingdom 'fell among thorns; and the thorns sprung up and choked it.' And 'it became Him,' who was 'made a curse for us,' to wear on His sacred head the torturing emblem of human sin and shame.

The figurative applications of the less conspicuous plants of Palestine are comparatively few, as might have been anticipated. The *Myrtle*, *Box*, *Pomegranate*, and some other shrubs are casually alluded to for their beauty, fragrance, or fruitfulness. The lily-blossom and pomegranate-flower were used in ornamentation, figures of animals being prohibited. The fruit of the *Carob* tree is named only in the Parable of the Prodigal, but it has

become for all time an emblem of the world's unsatisfying pleasures.

The minor vegetation of field and meadow—in Bible phrase 'the grass of the field'—springing forth so fair and abundant in the early spring, and quickly withering in the summer's heat, is a frequent emblem of the frailty of human life. With it the Great Teacher has closely associated the vernal flowers which bespangle the Syrian fields, so fragile yet so fair, and in their seeming trustfulness conveying to the believer comforting thoughts amidst the distractions of daily life. The essential distinction and constant intermingling of the good and evil in human society were also exhibited by Him in the Parable of the Wheat and Tares; the lowly origin and wondrous growth of His Kingdom typified by the Mustard plant; the silent working of Divine power in the hearts of men by the Seed growing secretly; while a wise forecasting of events is taught by the leafing of the familiar Fig tree.

In the Jewish ritual only a few vegetable substances suggest meanings which can be determined with certainty. The significance of the anointing-oil has been already mentioned. The perfume or incense—both the compound and the *Frankincense* which it contained—for the Tabernacle service, typified acceptable worship. 'Let my prayer be set forth before Thee as incense,' was the petition of the Psalmist (Ps. cxli. 2); and the elders in the Revelation are represented as bearing 'golden vials full of odours, *which are the prayers* of saints' (ch. v. 8). *Myrrh*, though forming part of the ointment of consecration, is known in the Bible chiefly in its secular applications, like spikenard and aloes, cassia and cinnamon; either a personal luxury, a medicament for the

sick, a gift of honour to the living, or a tribute of affection to the dead. But in the offerings of the Magi to the infant Redeemer there was unquestionably a deep significance; and perhaps no interpretation is more probable than that of the early Christians: 'Gold to the King of Israel, myrrh to the Man of Sorrows, incense to God manifest in the flesh.'

> 'Dant tibi Chaldæi prænuntia munera reges,
> Myrrham homo, rex aurum, suscipe thura Deus.'

The knowledge of vegetable phenomena possessed by the ancient Hebrews was doubtless slender enough; yet the Galilean peasants could hardly fail to perceive the bearing of their Lord's touching allusion to His voluntary death for the life of the world. 'Verily, I say unto you, Except a corn of wheat fall into the ground and die, it abideth alone; but if it die, it bringeth forth much fruit.' But how triumphant the resurrection hope which the accomplishment of that redeeming work has inspired! 'That which thou sowest is not quickened except it die, but God giveth it a body as it hath pleased Him. . . So also is the resurrection of the dead. It is sown in weakness, it is raised in power . . . . For this corruptible must put on incorruption, and this mortal must put on immortality. . . . Thanks be to God which giveth us the victory through our Lord Jesus Christ!'

> 'And since that hour the awful Foe is charmed,
> And life and death are glorified and fair;
> Whither He went we know, the way we know,
> And with firm step press on to meet Him there.'

LIST OF SCRIPTURE REFERENCES.

Oxford

PRINTED BY HORACE HART, PRINTER TO THE UNIVERSITY