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Bible plants and animals

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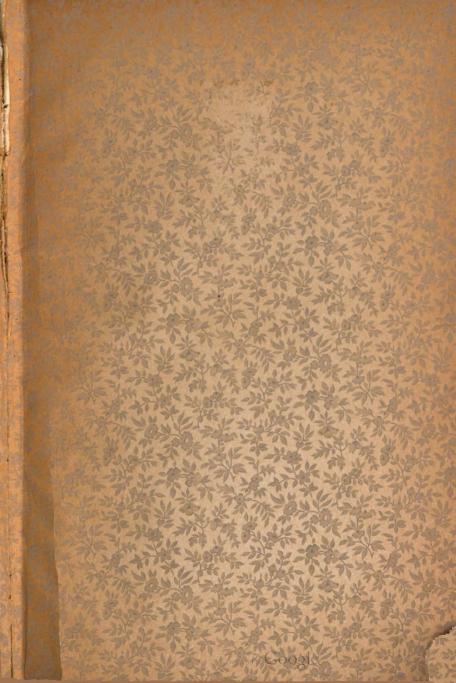


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BIBLE . PLANTS AND ANIMALS.

BIBLE PLANTS AND ANIMALS:

ILLUSTRATIONS OF OVER ONE THOUSAND PASSAGES OF SCRIPTURE,
FROM THE WORKS OF TRAVELLERS AND OTHER SOURCES.

BY

ALFRED E. KNIGHT.

Containing Thirty Fac-simile Reproductions of Drawings by the Author.

7

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JAMES NISBET & CO., 21 BERNERS STREET.

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BIBLE PLANTS AND ANIMALS.

CHAPTER I.

CLOUDLAND.

The Palestine of Prophecy—The Palestine of the Past—Effects of Climate: (1) Of the Sun; (2) Of the Moon; (3) Of the Snow; (4) Of Rain and Hail; (5) Of the Dew; (6) Of Thunderstorms; (7) Of the Wind.—Atmospheric Phenomena, &c.: (1.) The Simoom; (2) The Sirocco; (3) Whirlwinds.—
(For the Mirage, see Chapter V.)

THOUGH the manners and customs of the East are stationary, its physical aspect has greatly changed. Once the name was synonymous with fruitfulness and beauty, and there was scarcely a country in the Eastern world which was not rich by reason of its natural endowments; but time and the judgment-hand of God have wrought changes, and the fruitful places have become a waste. Ammon, Moab, Philistia, Idumea, all tell the same tale, and vindicate by their very nakedness the oracles of God. Concerning Ammon it was written, even in the day of its glory, that it should be "a perpetual desolation" (Zeph. ii. 9); and the traveller now speaks of the country as a vast desert

(Seetzen's Travels). The spoiler was to fall upon the summer fruits and vintage of Moab, and Moab was to be desolate, and truly the prophetic word has come to pass. Its proud cities are in ruins, and its fruitful fields have become a desert. Philistia, though its soil is yet rich and fertile, was likewise to bow to the sovereign decree, and it is now desolate and forsaken; and as for Idumea, the terrible and haughty Edom of the Old Testament, an even worse judgment has overtaken it, and at the present day (to quote the very words of Scripture) it is "a desolation, a reproach, a waste, and a curse."

And Palestine has shared the same fate. The land of Israel-the "goodly land"-the land of promisethe Canaan which flowed with milk and honey, and was noted for its corn and wine-is no longer what it As compared with its former fruitfulness it is a wilderness, though in the case of this country the desolation is not perpetual. Though the fathers are to tell the children, from generation to generation, that "that which the palmer-worm hath left hath the locust eaten; and that which the locust hath left hath the cankerworm eaten; and that which the cankerworm hath left hath the caterpillar eaten;"-though this mournful truth must be handed down through many weary years, yet the gracious promise still remains: "I will restore to you the years that the locust hath eaten, the cankerworm, and the caterpillar, and the palmer-worm and my people shall never be ashamed." For when that sentence of destruction

went forth, "The whole land shall be desolate," there was added this word of solace, "Yet will I not make a full end"—a word which God will surely make good in His own time.

But let us now take a hasty glance at the Palestine of the past. "A better country than this earth did not contain. It was 'a delightsome' and 'a pleasant land, 'a goodly heritage of the hosts of nations.' was variegated and intersected with all the elements of sublimity and beauty-with whatsoever was bold and gentle. It was prolific without a miracle, and the subject of a periodical one. It was a wealthy Aromatic herbs covered its hills, and the fairest flowers decked its glens. The rose was in Sharon, and the lily in the valleys. The voice of the turtle was heard in the land. There roamed the vine. and there clustered the date, and there hung the pomegranate. The cedar towered on the mountains, and the myrtle skirted their sides. No human hand could raise the clusters of Eshcol. The south wind, passing over the gardens, caused the spices to flow out. seasons revolved in their variety, but with a blended There was the upland breeze in which the sweetness. fir could wave its arms, and the softer air in which the olive unfolded its blossom. The sun smote not by day, nor the moon by night; the birds sang among the branches; the dew lay thick in Hermon. There was balm in Gilead. The lign-aloe dropped from the river-bank. Kedron and Jordan poured forth their streams, the rain also filled the pools. Lakes glistened in the landscape and cooled the drought. Beautiful for situation was Mount Zion. The cattle browsed on a thousand hills. The 'excellency of Carmel' and the 'glory of Lebanon' set their pinnacles against the deep azure of Canaan's sky. The year was crowned with goodness. The Lord God cared for that land, and His eye was always upon it. At the stated periods fell the 'early and latter rain.' The pastures were clothed with flocks. The ploughman overtook the reaper, and the treader of grapes him that sowed the seed. The barns were filled with plenty, and the press burst out with new wine. The little hills rejoiced on every side. Precious fruits were brought forth by the sun, and precious things were brought forth by the moon. The earliest pass, the valley of Achor, was a door of hope. The vineyards distilled the pure blood of the grape. The fountain of Jacob was upon a land of corn and wine. The inhabitants of the land were filled with the finest of the wheat. It flowed with milk and honey. Its heavens dropped It was surrounded with munitions of rocks. fatness The deep, crouching beneath, spread its sure defence. The land might be called Beulah. The distant glimpse of its prospect refreshed the dying eye of Moses; and of all thine earthly territory, this is emphatically 'Thy land, O Immanuel."-Hamilton's Sermons.

The CLIMATE of this once delightful land is generally mild and salubrious. It is characterised more by heat than cold, and its winters are of short duration. During the few weeks of cold weather the heights of Lebanon

and other lofty mountains are capped with snow, but in the valleys the cold is little felt. Domestic fires are lighted about the end of November or early in December. It was at this time that Jehoiakim, king of Judah, is represented by Jeremiah as sitting in his winter-house with a fire burning on the hearth before him (Jer. xxxvi, 22). The heat during the summer season is sometimes intense; bread is often baked in the sun, and the thermometer, not infrequently, is 100° Fahrenheit in the shade. When the hot season has really set in, deaths from coup-de-soleil or sun-stroke occur daily, and the only safe place during the most oppressive hours of the day is under shadow or within doors. Such facts will readily account for the death of the Shunammite child in 2 Kings iv. 19, 20, and will help in the understanding of many Scriptural allusions. Job laments that he is made to possess months of vanity "as a servant earnestly desireth the shadow" (vii. 2, 3); and we can understand what meaning would be conveyed to the mind of a Jew by such phrases as, "There shall be a tabernacle for a shadow in the day-time from the heat;" "Make thy shadow as the night in the midst of the noonday;" "Thou hast been a shadow from the heat;" or, again. in the beautiful expression, "A man shall be as an hiding-place from the wind as the shadow of a great rock in a weary land" (Isa. iv. 6; xvi. 3; xxv. 4; xxxii. 2).

We are further informed, on the authority of Carne and Roberts, that "in Arabia, Egypt, and other parts

of the East, the lunar rays are also very pernicious. Here the moon strikes and affects the sight even more powerfully than the sun; and a person sleeping in the open air, with his face exposed to it, would soon become blind. The deadly influence of the moon is equally felt in the East and West Indies. In the East Indies, meat hung up, if exposed to moonlight, will not take the salt, but taints and spoils speedily; whereas the same kind of meat, if kept from the moonlight, will take salt and keep good for some time. Demerara, the moon strikes similarly to the sun. This is called a coup-de-lune, to avert which people walk out at night with umbrellas, or paralunes. In allusion to these Oriental phenomena the Psalmist declares, 'The sun shall not smite thee by day, nor the moon by night' (cxxi. 6)."—Survey of the Holy Land. Chardin and Theyenot also bear witness to the fact that cold and frosty nights will often succeed the hottest days; and this explains the language of Jacob to Laban, "In the day the drought consumed him, and the frost by night" (Gen. xxxi. 40).

Snow seldom falls in the East, but RAIN and HAIL-STORMS are frequent, both in spring and winter; though the rain is almost confined to Palestine. The hailstones are frequently of an enormous size, and cause considerable destruction to life and property. Some that fell in Aleppo a few years since measured two inches in diameter, and others which fell in Marmorice Bay in the year 1801 were as big as large walnuts. But what shall we say of the hail-storm mentioned by Diodorus Siculus, which produced such consternation at Rhodes in the spring of B.C. 316, with its hailstones upwards of a pound in weight? With such facts before us we can recognise the propriety of the Psalmist's language, "He casteth forth his ice like morsels; who can stand before his cold" (Ps. cxlvii. 17), and can form some conception of the storm of hail which discomfited the Amorites in the time of Joshua (Joshua x. 11).

In Palestine the rainfalls are heavy and frequent. The people recognise two rain-seasons, which they call the early or former rain, and the latter rain. The early rain commences at the autumn equinox, and continues till the beginning of December; and the latter rain commences about the vernal equinox, and continues three or four weeks: the interval between the two seasons is often showery. "From these bountiful showers of rain," says Mr. Jowett, "the fertility of every land springs; but how dreadful in this country would be such a three years' drought as was inflicted upon Israel in the days of Ahab, may easily be conceived when it is remembered that in summer the richest soil is burnt to dust; so that a traveller, riding through the plain of Esdraelon in July or August, would imagine himself to be crossing a desert." The former rain was "requisite to prepare the land for ploughing and sowing," and the latter was essential "to the growth and maturity of the crop, the productiveness of which was regulated by the paucity or copiousness of the vernal showers." How appropriate the simile which Solomon has drawn: "In the light of the king's countenance is life; and his favour is as the cloud of the latter rain" (Prov. xvi. 15); or again, the language of the apostle James, "Behold the husbandman waiteth for the precious fruit of the earth, and hath long patience for it, until he receive the early and latter rain" (James v. 7. See also Deut. xi. 14; Job xxix. 23; Jer. iii. 3, v. 24; Hosea vi. 3; Joel ii. 23; Zech. x. 1).—Christian Researches in Syria.

A heavy rainfall is usually preceded by short and violent gusts of wind, which raise the dust in clouds, and make walking difficult and unpleasant. Hence the expression, "Ye shall not SEE wind, neither shall ye see rain," which occurs in the Second Book of Kings (iii. 17). Another precursor of heavy rains is a "small dark cloud rising out of the west," such as Elijah's servant described as "a little cloud out of the sea, like a man's hand" (I Kings xviii. 44). "A little cloud in the horizon," says Dr. Kitto, "would be to us of small significance; but it is not so in the East. clearness of the sky renders the slightest appearance of the kind distinctly visible, and it is known to be a sign of an immediate storm with violent rain. Of several instances that might be mentioned, one of the most graphic is that given by Mr. Emerson in his 'Letters from the Ægean.' He was at sea in a Greek vessel in the Levant. One morning, which had opened clear and beautiful, it was announced that a squall might be expected. No sign recognisable by European landsmen appeared; but on attention being properly directed,

'a small black cloud' was seen on the verge of the horizon towards the south, which was every instant spreading rapidly over the face of the sky, and drawing nearer to the vessel. Orders were immediately given to strike sail, and to prepare the vessel for scudding before the hurricane. But scarcely an instant had elapsed ere the squall was upon them, and all grew black around; 'the wind came rushing and crisping over the water, and in a moment the ship was running almost gunwale down, while the rain was dashing in torrents on the deck. As quick as thought the foresail was torn from the yards, and as the gust rushed through the rigging, the sheets and ropes were snapping and crackling with a fearful noise. The crew, however, accustomed to such sudden visitants, were not slow in reefing the necessary sails, trimming the rigging, and bringing back the vessel to her proper course; and in about a quarter of an hour, or even less, the hurricane had all passed away; the sun burst out again through the clouds that swept in its impetuous train; the wind sank to its former gentleness, and all was once more at peace with the exception of the agitated sea, that continued for the remainder of the day rough and bil-It was to this phenomenon, doubtless, that our Lord alluded when He said, "When ye see a cloud rise out of the west, straightway ye say, There cometh a shower; and so it is" (Luke xii. 54).

The absence of rain during the months of June, July, and August is compensated by the heavy NIGHT-DEWS, which are so copious in their fall that a person exposed to them would soon be wet to the skin. But the morning sun soon draws away the moisture, and long before noon the earth is parched and dry again. Of Ephraim and Judah it was said, "Your goodness is as the morning cloud, and as the early dew it goeth away"—a mournful state, but how truthfully and graphically described! (Hosea vi. 4 and xiii. 3.)

Dr. Kitto relates that while travelling in Western Asia he found, on coming forth from his tent one morning, that all the baggage which had been left in the open air was so wet with the night-dew that it seemed to have been exposed to heavy rain, and he could with difficulty believe that no rain had fallen. Dr. Clarke bears similar testimony, and states that when travelling in Egypt the night-dews were so copious that the water penetrated his tent, which was double-lined, and ran down the tent-pole in a stream. Maundrell speaks to the same purpose, and tells us that he was taught by experience "what the holy Psalmist means by 'the dew of Hermon,'" as the tents were as wet with it as if it had rained all night. The fertilising power of these nocturnal dews has suggested some of the most beautiful and impressive of Old Testament similes. "I will be as the dew unto Israel"-"His favour is as dew upon the grass"-"Thy dew is as the dew of herbs"-and again, in the exquisite language of the Pentateuch, "My doctrine shall drop as the rain, my speech shall distil as the dew, as the small rain upon the tender herb, and as the showers upon the grass." (Hosea xiv. 5; Prov. xix. 12; Isaiah xxvi. 19, and Deut. xxxii. 2.)—Illustrated Commentary, vol. ii., Travels in Europe, &c.

THUNDERSTORMS are frequent in the East, and it is a curious fact that both in Egypt and Palestine they are more common in winter than in summer. and impressive beyond anything to be seen in this country, and attended by certain phenomena which belong not to an English thunderstorm, they deserve a special mention in this place. Listen to the description of a thunderstorm on Mount Carmel by the eloquent Lamartine. Writing in his diary on October 21st, 1832, he says: "We have been surprised by a storm in the middle of the day. I have seldom seen anything so terrible. The clouds rose like towers perpendicularly above Mount Carmel; they speedily enveloped the long peak of that chain of mountains, and the mountain itself, lately so serene and brilliant, was by degrees immersed in dark rolling billows, split at intervals by streaks of fire. In a few moments the whole horizon dropped and contracted upon us. thunder gave no claps-it was one continued, awful, and deafening roll, like the roar of the waves on a beach during a violent tempest. The lightning gushed like actual torrents of fire from the sky on the black sides of Carmel; the oaks on the mountains, and those on the hills beside us, bent like reeds. The wind, which rushed from the gorges and caverns, would have overthrown us if we had not quitted our horses and found some degree of shelter behind a rock in the dry

bed of a torrent. The dried leaves, lifted up by the storm, flew over our heads like clouds, and the branches of trees fell thickly around us. I remembered the Bible and the prodigies of Elias . . . on this mountain." With such demonstrations of Almighty power before us, a question which has descended to us through the ages comes back in all its force, "Hast thou an arm like God, or canst thou thunder with a voice like Him?" (Job xl. 9).—Travels in the East.

The numerous references to the Winds of Eastern countries form another striking feature of Bible imagery. Nahum declares, "The Lord hath his way in the whirlwind, and the clouds are the dust of his feet;" and in language not less grand and impressive, the Psalmist writes, "Bless the Lord, O my soul, who maketh the clouds his chariot; who walketh upon the wings of the wind" (Nahum i. 3; Psalm The winds of Palestine, as of all countries which approach the tropics, are periodical, and governed. in no small degree by the sun. The dry north-east wind begins to blow, with frequency and strength, about the autumnal equinox, and continues to prevail till November. Then follow the west and south-west winds, which the Arabs call "the fathers of rain." March brings with it the pernicious southern winds, which are specially insupportable in the low country, and these continue on and off till the summer months, when north or north-east winds again prevail. westerly winds, blowing from the sea, are cool and salubrious, and usually portend rain; the easterly

winds, blowing from the desert, are hot and unhealthful, and do great damage to the crops and vintage. The seven withered ears of Pharaoh's dream are spoken of as "blasted with the east wind;" and concerning the vine of Israel, it is asked, "Being planted, shall it prosper? Shall it not utterly wither when the east wind toucheth it?" (Gen. xli. 23; Ezek. xvii. 10. See also Ezek. xix. 12; Hosea xiii. 15; and Jonah iv. 8). "These easterly gales," says Mr. Bannister, " are highly dangerous to navigators in the Mediterranean Sea, where they are called Levanters, the term Levant denoting the country which lies at the eastern extremity of that sea. And such was the Euroclydon which caused the wreck of the vessel in which Paul was sailing to Rome" (Acts xxvii. 14). David exclaims, "Thou breakest the ships of Tarshish with an east wind;" and the prophet Ezekiel makes a similar allusion in his "lamentation for Tyrus," "Thy rowers have brought thee into great waters; the east wind hath broken thee in the midst of the seas" (Psalm xlviii. 7; Ezek. xxvii. 26). Thank God it is our portion to be linked in chains of love with One whom even the winds and sea obey (Matt. vii. 27).—Survey of the Holy Land.

But it is not in the Levantine gales of the Mediterranean that the great winds of the East are seen in their deadliest power. The simoom, the sirocco, and the whirlwind have yet to be described.

The Simoom usually comes with the south wind, and is one of the great terrors of the desert. Mr. Bruce

thus speaks of it: "We had no sooner got into the plains, than we felt great symptoms of the simoom, and about a quarter before twelve, our prisoner first, and then Idris, called out 'The Simoom! the Simoom! My curiosity made me look behind me. About due south, a little to the east, I saw the coloured haze as before. It seemed now to be rather less compressed, and to have with it a shade of blue: the edges of it were very like thin smoke. We all fell on our faces. and the simoom passed with a gentle ruffling wind. It continued to blow thus till near three o'clock; so that we were all taken ill that night, and strength was hardly left us to load the camels and arrange the baggage." Even in its mildest moods the simoom will do tremendous mischief; and Morier speaks of one which "so totally burnt up all the corn, then near its maturity, that no animal would eat a blade of it, or touch any of its grain." He continues: "The image of corn blasted before it be grown up, used by the sacred historian, was most probably taken from a cause similar to what has just been stated, and the allusion is also perhaps to the pestilential wind, when the prophet says (in the same chapter), 'I will send a blast upon him.' In the Psalms we read of the wind that passeth over the grass, and it is gone" (Psalm ciii. 16). — Travels in Abyssinia; Morier's Second Journey through Persia.

The Sirocco, the Arabs say, differs from the simoom only in its lesser heat; "the haze, the sand, and discolouration of the air being alike in both."

Further remarks on this subject are therefore unnecessary.

The WHIRLWINDS of the desert also seem in some sort to be connected with the terrible simoom; and in order to give the reader a clear idea of these phenomena, we cannot do better than go back to Mr. Bruce. The impression produced upon his own mind by contact with one of these whirlwinds was awful and enduring. He was passing through the vast Nubian desert, and suddenly saw in advance of him a number of prodigious pillars of sand, at different distances, and all in motion. At times they moved with great celerity—at others they stalked on with a majestic slowness; at intervals they threatened to overwhelm him, and, indeed, small quantities of sand did reach him more than once. Then they would retreat so as to be almost out of sight, their tops reaching to the very clouds. the tops often separated from the bodies; and these, once disjoined, dispersed in the air, and did not appear Sometimes they were broken near the middle, again. as if struck with a large cannon shot. About noon they began to advance with considerable swiftness upon him, the wind being very strong at north. Eleven of them ranged alongside about the distance of three miles; and he computed that the greatest diameter of the largest would measure ten feet. When they presently retired with a wind at south-east they left an impression upon the traveller's mind to which he could give no name, though fear and wonder were the chief ingredients. Vain indeed was the thought

of flying. The swiftest horse or fastest sailing ship could be of no use to carry him out of the danger. and the consciousness of this riveted him to the spot. The following day the same awful and impressive phenomena were witnessed; and now, lighted up by the red beams of the rising sun, the sand-pillars appeared to be on fire. The Greeks who accompanied Mr. Bruce at last became desperate, and expressed their horrified belief that the day of judgment was at hand. At eleven o'clock the simoom itself was upon them, in all its scorching and deadly power; and they fell to the ground and lay prone until the hot wind had gone over them. When at last they were able to lift their faces from the dust and to gaze around, the air was clear, the wind had fallen, and the sand-pillars had disappeared.—Trav. in Abys.

Morier records an experience of whirlwinds of another kind. While encamped at the village of Hassanabad, a violent wind arose from the eastward. It prevailed from the morning to about two o'clock P.M., when it changed about to the westward. At the time of the change whirlwinds were to be seen in different parts of the plain, sweeping along the country in different directions, in a manner that was frightful to behold. They carried away in their vortex sands, branches, and the stubble of the fields, and really appeared to make a communication between the earth and the clouds. The correctness of the imagery used by the prophet Isaiah (xvii. 13) when he alludes to the phenomenon is very striking; and when we

read in the Psalms, "Make them like a wheel, as the stubble before the wind," this also is happily illustrated by the rotatory action of the whirlwind, which frequently impels a bit of stubble over a waste, just like a wheel set into rapid motion. — M. Sec. Jour. through Persia.

Dean Pridaux is of opinion, in common with many other writers, that the simoom was the instrument used of God for the destruction of the army of Sennacherib. The prophetic word was that "God would send a blast upon him" (Isaiah xxxvii. 7); and in the narrative of the event we read that "the angel (or messenger) of the Lord went forth, and smote in the camp of the Assyrians a hundred and fourscore and five thousand." But the passage first quoted informs us that this messenger or agent was to be a blast; and therefore the only question to be settled is this, Was the blast that destroyed Sennacherib's army the terrible death-producing simoom of the present day? The Dean says "Yes;" and we are inclined to think with him.—Old and New Testament Connected.

CHAPTER II.

THE BIBLE GARDEN—ITS WEEDS AND FLOWERS. 32

Anise (see Dill) — Bdellium — Calamus — Camphire — Caper-plant —
Cassia — Cinnamon—Coriander—Cotton-plant—Crocus—Cummin
— Dill—Dove's Dung—Fitches—Flags (see chapter viii.)—Flax—
Galbanum—Gum-benzoin (see Onycha)—Hemlock—Hyssop—Lily
— Lotus (see chapter viii.)—Mandrake—Mint—Myrtle—Onycha
— Reeds, Rushes, and Papyrus (see chapter viii.)—Rose of Sharon
— Rue—Saffron (see Crocus)—Sope, or Herb of the Washers—Spelt
(see Fitches)—Spikenard—Star of Bethlehem (see Dove's Dung)—
Sweet Calamus (see Calamus)—Tare—Wormwood.

WE cannot better introduce the subject of our present chapter than by an extract from the able and interesting essay on Biblical botany by the Rev. John Lawson. "The Bible," he says, "does not teach botany as botany; it does not even indicate plants as plants, or for their own sake; it is throughout a revelation of the Divine will to man in regard to moral things; and it treats plants in their connections with God's moral government and with man's moral interests, and therefore exhibits them mainly in their physiological aspects and economical adaptations, and altogether in subordination to doctrinal and ethical instruction."

The identification of many of the plants of the Bible is obvious, admits not of the slightest doubt,

and realises fully and distinctly all the aspects of them with which the doctrinal or ethical teachings are con-But the identification of a few is difficult or uncertain, gives occasion for much conflict among critics, and has been made the ground of some bold cavils on the part of infidels. The Hebrew and the Greek names, in the cases of all such as are readily identified, stand clearly out either as most nicely exact or as most strikingly graphic; and the Hebrew and the Greek names, in the cases of the few which have not yet been certainly or at all identified, will doubtless stand out in the same lights whenever the plants which they designate shall become known. Obscurity respecting these few arises mainly from the limited state of modern knowledge of the rare or even ordinary vegetable productions of Bible lands, and will, beyond all question, completely disappear when that knowledge shall acquire distinctness and extension. The obscurity, in other words, is due, not in the least to the appellative words in the Scripture, but principally to modern ignorance or uncertainty regarding their import. The effect of it, in the meantime, is much to be deplored. So many as six Hebrew words. for example, are interchangeably rendered in the English version "oak," "plane," "teil," "elm," and "tree," and have not yet been fully distinguished or determined by critics and naturalists, so that some portions of the doctrinal or ethical teachings of the passages in which they occur are necessarily lost. And says Sir Thomas Browne, speaking of the Bible, "The botanical

artist meets everywhere with vegetables; and from the fig-leaf in Genesis to the star-wormwood in the Apocalypse, are variously interspersed expressions from plants, elegantly advantaging the significance of the text, whereof many being delivered in a language proper to Judea and neighbouring countries are imperfectly apprehended by the common reader, and now doubtfully made out even by the Jewish expositors. And even in those which are confessedly known, the elegancy is often lost in the apprehension of the reader unacquainted with such vegetables, or but nakedly knowing their natures, whereof, holding a pertinent apprehension, vou cannot pass over such expressions without some doubt or want of satisfaction in your judgment." We will now consider some of the plants in detail. The arrangement which we have adopted is alphabetical.

ANISE (see Dill).

BDELLIUM.—A gum-resin, mentioned in Num. xi. 7, the origin of which has been a subject of doubt. There are several kinds of this produce, but probably the Indian bdellium, called by the natives googul, is the bdellium of Scripture. It is the Amyris Commiphora of Dr. Roxburgh, and, according to Dr. Royle, is produced by a species of Balsamodendron. "Resembling myrrh in appearance (see MYRRH), it also resembles it in its effects upon the human system, and is often fraudulently substituted for it; it is, however, weaker, while it is more disagreeable and acrid." The

bdellium of Gen. ii. 12 is obviously a mineral, and of course has no connection with the substance above described.—English Cyclopedia, art. Bdellium.

CALAMUS.—Travellers and commentators have been at much pains to identify the plant which Scripture speaks of as "sweet calamus" (Ex. xxx. 23). Whatever the tribe or family to which it may belong, it is certain that the sweet calamus of Ex. xxx. is the same as the "sweet cane from a far country" of Jer. vi. 20, and this may serve as a clue in our inquiry. Exodus we read that the calamus was among the chief spices and perfumes of which the precious oil for the service of the tabernacle was composed. Solomon mentions it in Cant. iv. 14 in connection with cinuamon and other fragrant things, which would seem to show that it was noted for its fragrance; Isaiah speaks of it as a sweet cane to be bought for money (xliii. 24); and lastly, Jeremiah alludes to the distance from whence it came in the expression above quoted, "the sweet cane from a far country." Putting these facts together, Dr. Royle is inclined to think that in the andropogon iwaranensa of Northern India he has made the desired discovery. Failing that, he is ready to fall back upon another closely allied species, which he has named the andropogon calamus aromaticus. The lastnamed of the above species grows extensively on the arid plains of Central India, and gives forth a strong aromatic odour when crushed or beaten: the firstnamed is also highly aromatic, but is found farther

north. Both may be fitly spoken of as "sweet cane;" both yield a fragrant oil; and both come from "a far country."—Illustrated Commentary, vols. i., iii., and iv.

CAMPHIRE.—The copher of Cant. i. 12, the "camphire" of our version, is generally thought to be a thorny species of the genus of plants Lawsonia, which is extensively cultivated in the vicinity of Sidoura, near the north-west bank of the Jumna. The Arabs call it Al Henna. "All oriental travellers describe the use of this plant by Asiatic women in dyeing their nails and the tips of their fingers, as well as the soles of their feet, of an orange hue with the leaves of the henna. It is also used by the men for dyeing their beards, the orange colour being afterwards converted to a deep black by the application of indigo. That this plant was similarly used from very early times is highly probable from the allusions to it by poets, as well as from some of the Egyptian mummies appearing as if the nails had been similarly dyed." Maddox thus describes the tree in his "Excursions": "I dined near groups of the henna-tree, which diffused their fragrance all around. Its leaves are small, and of a light green colour, and it bears berries in clusters of a delicate pale green, with flowers of a white and yellow colour."—Eng. Cycl., art. Lawsonia: and Scripture Natural History.

The CAPER-PLANT.—Whether the pretty little caperplant can justly claim a place among the plants of the Bible must remain an open question. As the doubt exists, however, we have included it in this collection. In ancient times its flower-buds were preserved in salt or vinegar, and much used in the East to excite the appetite; and it is said by competent critics that the passage, "desire shall fail: because man goeth to his long home" (Eccles. xii. 5), contains a reference both to the habit and to the plant itself. Indeed, Gesenius, supported by Delitzch and others, would translate the passage thus: "The caperberry shall fail, because man goeth to his long home;" and there is no reason to doubt the correctness of this rendering. The caperbush is described as a low trailing shrub, which "loves to creep over rocks and ruins," and is to be found in the present day hanging among the tombs about Jerusalem and blossoming around the pool of Siloam. The leaves are glossy-green, and the flowers white, with many long purple anthers.—Variorum Bible: Scrip. N. H.: and Universal Herbal, vol. i.

Cassia.—The cassia tree or shrub so nearly resembles the cinnamon, which is fully described below, that an extended mention of it is scarcely necessary. Some regard it merely as a variety of that plant. The bark resembles the cinnamon in property except for the presence of a mucilage or slimy substance, which the latter does not possess. Its uses in former times were various. In Exodus (xxx. 24) it is mentioned among the ingredients of the holy oil of anointing; in Ezekiel (xxvii. 19) as one of the articles of merchandise in the markets of Tyre; and in the Psalms (xlv. 8) it is referred to in connection with myrrh and

aloes as being used to scent garments with. The word in the original is kidda, otherwise written kitzia, from whence we have the Greek κασσια and the Latin cassia.—Illus. Com., vol. i.; Smith's Dictionary, vol. i.

CINNAMON.—This plant is frequently mentioned in the Word of God. It is called "sweet cinnamon" in Ex. xxx. 23, and the name is most appropriate. But it is not till the season for gathering the spice arrives that a walk through a cinnamon garden would give much pleasure in respect of fragrance. Then it is charming; and the busy groups of Cingalese peeling



the twigs, which are cut annually, add interest to the beauty of the gardens. The bark is stripped off with astonishing quickness by means of a sharp iron instrument, and laid in the sun, where it curls up into the shape of the cinnamon sticks we

see in our shops. Bishop Heber in his "Journal" describes a visit to some cinnamon gardens in Ceylon. "We drove," he writes, "through the far-famed cinnamon gardens, which cover upwards of 17,000 acres of land on the coast, the largest of which are near Colombo. The plant thrives best in a poor,

sandy soil in a damp atmosphere. It grows wild in the woods to the size of a large apple-tree, but when cultivated is never allowed to grow more than ten or twelve feet in height, each plant standing separate. The leaf is something like that of the laurel in shape, but of a lighter colour; when it first shoots out it is red, and changes gradually to It is now out of blossom, but I am told that the flower is white, and appears, when in full blossom, to cover the garden. After hearing so much of the spicy gales from this island, I was much disappointed at not being able to discover any scent, at least from the plants, in passing through the gardens. . . . On pulling off a leaf or a twig one perceives the spicy odour very strongly, but I was surprised to hear that the flower has little or none."

The fact of cinnamon being in use among the Egyptians at the time of the Exodus opens up the interesting question as to how it found its way there from India and Ceylon. Dr. Kitto ingeniously (and, we think, conclusively) proves that the Arabians must have brought it thither—not the restless Bedouin Arabs, who are so wholly averse to commerce, but the aboriginal Arabs of Kahtan who inhabited the coast. Dr. Vincent observes: "That the Arabians were the first navigators of the Indian Ocean, and the first carriers of Indian produce, is evident from all history, as far as history goes back; and antecedent to history, from analogy, from necessity, and from local situation.— Scrip. N. H.; Illus. Com., vol. i.; Vinc. Com. and Nav.

CORIANDER.—The coriander is one of the umbelliferous order of plants, closely allied to the dill (see dill), and was a favourite pot-herb in very ancient times. In Eastern countries its seeds are chewed by rich and poor on account of their pleasant flavour; and the natives of India mix them with their curry for the same reason. (Exod. xvi. 31; Matt. xxiii. 23.)

—S. Dict., vol. i.; Illus. Com., vol. v.; and Scrip. N. H.

The COTTON-PLANT.—Of the plants mentioned in the Bible few are more useful than this, since it furnishes materials for clothing in the four quarters of the world, particularly in Asia, where it abounds. The seeds. too, are bruised, and given as food to sheep and cattle, which thrive and grow fat upon it. Calmet describes the cotton as "a white, woolly, or downy substance, found in a brown bud, produced by a shrub, the leaves of which resemble those of the sycamore-tree. bud, which grows as large as a pigeon's egg, when ripe, turns black, and divides at top into three parts: the cotton is as white as snow, and, with the heat of the sun, swells to the size of a pullet's egg." Rich, when in Koordistan, saw the villagers at work gathering the cotton, and speaks of it as "a very pleasant and cheerful sight;" and other travellers write with equal pleasure of the cotton-fields of other parts. Malta seems peculiarly rich in such plantations. "Large tracts," writes one, "were covered with crops of the cotton-plant, now in full bloom. The flower is

generally deep yellow or orange, and contrasts beautifully with the bright green leaves. The plants are about a foot and a half in height."—Calmet's Dictionary; Rich's Travels in Koordistan; Journey across the Desert; and Uni. Herb., vol. i.

The CROCUS.—The crocus finds a place among Bible plants, not because it is mentioned in the Word of God, but because saffron, which is referred to therein, is obtained from it. The Hebrew word carcôm, is similar to the Arabic kurkum, which denotes the "saffron crocus" (crocus sativus); thus showing, beyond doubt, that the rendering of the Authorised Version is "Spikenard and saffron" are linked together correct. in the description of the mystic garden in the Canticles (iv. 14), and hence the plant itself is evidently referred to. There are many gardens of crocuses about Aleppo, and great quantities are brought to England from the Mediterranean coast for the use of the dyer." The saffron is obtained from the stigma of the flower, and is very expensive, owing to the smallness of the part from which it is extracted. The aroma found in the Syrian species of the plant is said to be peculiar but not unpleasant. In Lamentations iv. 5, where Jeremiah speaks of cloths of a saffron colour, the passage rather signifies purple or crimson.—Illus. Com., vol. iii.; Scrip. N. H.; and C. Dict.

CUMMIN.—An umbelliferous plant, closely allied in structure and properties to the dill (see dill). "It was in high repute in our Saviour's time, and the

tithe of it was paid by the Scribes and Pharisees" (Matt. xxiii. 33). "It grows wild in Syria and Egypt, and was cultivated in the most ancient times on account of its agreeable aromatic fruit, which possesses stimulating and carminative properties." The height to which it attains is seldom more than twelve or thirteen inches, and its flowers are white or reddish. —Cyclopædia of Biblical Knowledge, vol. i.

DILL.—This plant, formerly much in request for its medicinal virtues, is still important as having a place in the Word of God. It is translated anise in the Authorised Version, but this is a mistake. The Greek word in Matt. xxiii. 23, where the reference occurs, is anethon, Latin anethum, and the Latin name for the common dill is anethum graveolens. But the anise, though similar to the dill in properties, is a totally distinct plant, and its specific name is not anethon, but anoon. The dill is an umbelliferous plant, that is, a plant with stalks growing from a common centre like a carrot-top; and it produces a flower of a bright brown colour. The seeds, which are flattened and elliptical, are the parts used, and though their medicinal properties are not so highly thought of as they were, the Russians know the value of them as a condiment, and mix them freely in their cakes.—S. Dict., vol. i.; Illus. Com., vol. v.; and Scrip. N. H.

Dove's Dung.—This plant (if, indeed, a plant be intended by the word in the original) is mentioned but once in Scripture; in which place we read that, owing

to a "great famine in Samaria," "an ass's head was sold for fourscore pieces of silver, and the fourth part of a cab of dove's dung for five pieces of silver" (2 Kings vi. 25). It is thought by some that the plant known as the Star of Bethlehem is here referred to. and, if that be the case, but little description will be required. It is a native of England, and is justly admired for its elegant little flower, which belongs to the lily tribe. In Syria and the neighbouring countries its bulbous root has been used since time immemorial as an esculent vegetable, being eaten in the three following ways, raw, roasted, and mixed, in a dried and pulverised state, with bread-flour. "Of the thirty-six known species, one bearing a yellow flower yields the most agreeable food. . . . The plains and valleys about Samaria abound in this pretty flower; and the dearth of its roots was a token of famine beyond endurance."

Morier, however, is inclined to take a different view of the matter, and to understand the word in its literal sense. "The dung of doves," he writes, "is the dearest manure which the Persians use; and as they apply it almost entirely to the rearing of melons, it is probably on that account that the melons of Ispahan are so much finer than those of other cities. The revenue of a pigeon-house is about a hundred tomauns per annum; and the great value of this dung, which rears a fruit that is indispensable to the existence of the natives during the great heat of summer, will probably throw some light on that passage of Scripture where, in the

fàmine of Samaria, the fourth part of a cab of dove's dung was sold for five pieces of silver" (2 Kings vi. 25).—Scrip. N. H.; M. Sec. Jour. through Persia.

FITCHES.—The seed of the black poppy (nigella sativa—one of the ranunculaceous plants) is supposed to answer to the fitches of Scripture. The plant itself is commonly met with in gardens, and grows to nearly two feet in height. "The leaves are small, like those of the fennel; the flower blue, which, disappearing, the



seed-vessel shows itself on the top, like that of a poppy, furnished with little horns, oblong, divided into several partitions or cells, in which are enclosed seeds of a very black colour, not unlike those of the leek, but of a very fragrant smell." The plants belonging to this family are extremely poisonous, this being a notable, and, indeed, the only exception. Fitches

are mentioned in Isaiah (xxviii. 25-27), and Ezekiel (iv. 9); but there appears to be some doubt as to whether the word in the latter passage really refers to the nigella. The marginal reading is "spelt," and spelt is a species of wheat, cultivated in the south of Europe, which is sometimes given to horses when barley is scarce. It makes but a dry bread, but is considered excellent for

pastry.—Scrip. N. H.; Illus. Com., vol. iv.; and Uni. Herb., vol. ii.

FLAGS, RUSHES, REEDS, &c. (See Chapter VIII.)

FLAX.—This pretty and useful plant is known by its sky-blue flower, streaked with deeper coloured lines; and from its seeds the linseed-oil of commerce is extracted. After the oil has been expressed, the remaining farinaceous part, called oil-cake, is given to oxen, who soon grow fat upon it. The fibres of the stem form the substance of linen, lawn, cambric, &c.; which materials, when worn to rags, are made into paper. The value of the plant cannot, therefore, be over-It is found wild in many parts of Europe, in cornfields. In England we cannot assert it to be aboriginal, though it is common enough in the western counties, not only in cornfields, but in pastures and on downs. It flowers in June and July. When crowded in cultivation, the plants will rise only a foot and a half high, with a slender unbranched stalk: but given their room, they will rise more than two feet high, and put out two or three side branches towards the top, especially in a good soil. The flax-plant is supposed to have been derived originally from those parts of Egypt which are exposed to the inundations; and in the earliest record we have of it (Ex. ix. 31) it is mentioned as a plant cultivated in that country.

"The weaving and dyeing of linen was well known

and practised by the Egyptians. Some of the mummycloths are as fine as muslin and evenly made. mummy is described as 'wrapped in a garment curiously wrought with gold lace, and apparently of a tough texture.' Egyptian linen was an article of export, and was of high repute among the Greeks in the time of Herodotus. Joseph was arrayed in 'fine linen' (Gen. xli. 42), and even in Solomon's days 'linen yarn' was brought from Egypt by the king's merchants 'at a price" (2 Chron. i. 16). In Ezekiel xxvii. 7, it is said to Tyre, "Fine linen, with broidered work from Egypt, was that which thou spreadest forth to be thy sail." In former times the Hebrews made their lamp-wicks of flax, and hence the beautiful allusion in Isaiah xlii. 3, "The smoking flax shall be not quench."—Uni. Herb., vol. ii.; C. Dict.; Egypt, &c.

GALBANUM.—The gum of this name, which is mentioned in Ex. xxx. 34, is not extracted from the plant galbanum, as many suppose. There is much diversity of opinion as to the plant from which the galbanum of Scripture was obtained; so much, indeed, that we feel we cannot spare the space to discuss the question. It appears, however, to be the produce of a species of bubon, a plant of the umbelliferous family, to which the hemlock and parsley belong. The gum itself was one of the perfumes employed in the preparation of the sacred incense (Ex. xxx. 34), but is said to give forth a repulsive odour—a statement which can only be explained by the fact that Europeans and Easterns

do not always agree on such matters.—Illus. Com., vol. i.; Scrip. Herb.

GUM-BENZOIN. (See Onycha.)

HEMLOCK.—It is difficult to ascertain what, or, indeed, whether any particular plant is intended by the Hebrew word. "From a comparison of the passages in which it is noticed, we may infer that it grew rankly in the cornfields, and bore a berry or fruit, from which a juice might be expressed of a very bitter flavour" (Hos. x. 4; Deut. xxxii. 32; Amos vi. 12; Jer. viii. 14, ix. 15, xxiii. 15; Lam. iii. 19, &c.). One writer observes that the plant resembles anise, and that "therefore in Hosea, the false swearer is said to cause judgment to spring up like hemlock in the furrows; that is to say, that false judgment is as mischievous, from its semblance to justice, as the poisonous hemlock is by its resemblance to the wholesome plant in the furrows of which it springs, and may deceive the husbandman." This interpretation is, perhaps, a little far-fetched, but we insert it for lack of a better. We may add that the same word which is translated hemlock in various passages of Scripture, is in others rendered "gall."—S. Dict., vol. i.; and Scrip. N. H.

Hyssop.—To identify the $\ell z \delta b$ of Scripture (rendered hyssop in our version), is a difficult and unenviable task. Almost every commentator believes that he has found the true plant, and is prepared to establish the claims of his favourite by plausible arguments; but

how is one to decide? The learned librarian of Trinity College, Cambridge, observes that had the botanical works of Solomon survived, they might have thrown some light upon the question. We sincerely wish they had. However, we believe we cannot do better than adopt the opinion of the laborious Dr. Kitto, whose patient researches during a long residence in the East have given a special value to his utterances on such subjects. He is of opinion that either the phytolacea decandra, or a plant belonging to the same genus, is the hyssop of Scripture. It "belongs to the family Chenopodeæ, of which the barilla plant forms a part, but it is unlike the rest of its congeners in the exceeding beauty of its flowers, and the berries by which they are succeeded. These flowers are generally of a fresh and lively pink, disposed in elegant racemes or clusters. The berries are compounded of a circle of carpella or minute fruits closely joined together, and afford a blooming dye. The leaves are generally smooth and neatly shaped, and the stem is long, smooth, and wand-like."

The hyssop has several uses in the Word of God. It was used to sprinkle the blood of the paschal lamb on the doorposts of the Israelites in Egypt; it was employed in the purification of lepers and leprous houses, and it was used in the sacrifice of the red heifer. David makes a beautiful allusion to it in the expression, "Purge me with hyssop, and I shall be clean;" and in the account of the wisdom of Solomon, we read that he spake of trees, from the cedar-tree

that is in Lebanon even unto the hyssop that springeth out of the wall." (Ex. xii. 22; Lev. xiv. 4, 51; Num. xix. 6; Ps. li. 7; and 1 Kings iv. 33.) In the New Testament it is mentioned in connection with the Crucifixion, and we are told of the Roman soldier who placed a sponge filled with vinegar upon hyssop, in order to raise it to the lips of the dying Saviour (John xix. 29). "A bunch of hyssop," says a recent writer, "is used in Scripture upon two occasions (I do not now refer to its typical import in the offerings). On one occasion it is used by an Israelite with blood (Ex. xii,); on the other it is used in the hand of a clean person for an Israelite, with water (Num. xix.). In both cases it signifies humiliation. The Psalmist refers to it in this way in Psalm li. 7. where he cries, 'Purge me with hyssop, and I shall be clean.' This was the moral cleansing of his soul by complete humiliation."—Illus. Com., vol. i.; and The Lord's Host, by F. G. Patterson.

THE LILY.—There is considerable difficulty in identifying this flower. That a lily of some kind is intended we need not doubt, as the two Hebrew words in the Old Testament (shûshûn and shôshanûh), which have been so translated, are still the names of the lily in the Arabic and Persian languages. The Greek word in the New Testament is kainon, which certainly means the lily.

Burckhardt and other travellers think the flower referred to may have been a species of wild artichoke,

very plentiful in Palestine, which grows to the height of four or five feet, and bears a thorny, violet-coloured flower. Dr. Thompson, however, is willing to identify it with the Hûleh lily, and writes thus confidently about it: "The flower is very large, and the three inner petals meet above and form a gorgeous canopy such as art never approached, and king never sat under, even in his utmost glory. And when I met this incomparable flower in all its loveliness, among the oakwoods around the northern base of Tabor and on the hills of Nazareth, where our Lord spent His youth, I felt assured that it was to this He referred. We call it Hûleh lily because it was here that it was first discovered. Its botanical name, if it has one, I am unacquainted with, and am not anxious to have any other than that which connects it with this neighbourhood. I suppose, also, that it is this identical flower to which Solomon refers in the Song of Songs, 'I am the rose of Sharon, and the lily of the valleys. As the lily among thorns so is my love among the daughters.' The bride comparing her beloved to a roe or a young hart, sees him feeding among the lilies. Our flower delights most in the valleys, but is also found on the mountains. It grows among thorns, and I have sadly lacerated my hands in extricating it from them. Nothing can be in higher contrast than the luxuriant, velvety softness of this lily, and the crabbed, tangled hedge of thorns about it. Gazelles still delight to feed among them, and you can scarcely ride through the woods north of Tabor, where these lilies abound, without frightening them from their pasture." (Cant. ii. 1, 2, and 16; iv. 5; Matt. vi. 28; and Luke xii. 27.)

A writer in the *Dublin University Magazine* has given us, in some pretty lines, *his* thoughts about how the lilies grow:—

"The lilies fair are found
On shadowy ground,
The shady haunts of sunny clime,
And breathe the balm of summer-time;
Refreshed by morning dew, and veiled from noon-tide glow,
They taste the softest light and air, and this is how they grow.

They bloom in sheltered nook,

By curling brook;

And earth how firmly, fondly loves

These treasures of her streams and groves!

The dark mould cherishes their petals, white like snow,

With heaven-apportioned nutriment, and this is how they grow.

I have considered them,

The flexile stem,

The blossoms pending airly
Beneath their leafy canopy,

Their witching fragrance, spotless hue; and thus I feel and know

That God imparts their loveliness, and this is how they grow."

The Lotus. (See Chapter VIII.)

Mandrake.—This is another of the plants of the Bible about which commentators greatly differ. If there has been one, there have been at least twenty different opinions as to the meaning of the Hebrew word. "It were a wearisome and superfluous task," says one writer, "to quote and pass judgment on the multitude of authors who have written about dudâim;"

and therefore it were needless to begin the inquiry here. Some have thought that lilies were intended, others citrons, others melons, others baskets of figs, others the lotus, and others bramble-berries. After reading all that we can obtain on the subject, we prefer to take our stand by Dr. Kitto, believing with him that the word has been correctly rendered in the Authorised Version, and that the mandrake is intended. This, also, the learned writer in Smith's Dictionary speaks of as "the most satisfactory attempt at identification" which has yet been made, observing that the Septuagint, the Vulgate, the Syriac, and the Arabic versions, together with the Targums, the most learned of the Rabbis, and many later commentators, are in favour of the translation of the Authorised Version.

Assuming, then, that the mandrake is intended, we may say that it is a stemless plant, with a circle of dark green leaves rising from the root, and a single flower on each scape or stalk. The root tapers like a parsnip, and runs three or four feet deep in the ground: it is sometimes single, and at others divided into two or three branches, almost of the colour of the parsnip, but a trifle darker. Numerous absurd stories are connected with it, which were once matters of belief to the ignorant and superstitious. It was fabled to grow under the gallows, where the matter falling from the dead body gave it the shape of a man; to utter a great shriek or terrible groans when dug up; and it was asserted that he who would take up a plant of mandrake should in common prudence tie

a dog to it for that purpose, for if a man should do it himself, he would surely die soon after. In Cant. vii. 13, we read, "The mandrakes give a smell," and doubtless, this refers to the fruit, rather than the flower or leaves; for the former is very agreeable, while the latter are exceedingly unpleasant. The plant is poisonous; but it has been sometimes used in small doses as an opiate.

MINT.—This familiar plant needs no description. The cottager is seldom without his little bundle of dried mint, and the rich man would soon complain if the precious condiment were forgotten with his soup or lamb. According to the Talmudical writers, the Jews in ancient times used mint with their food; and Lady Calcott remarks, "I know not whether mint was originally one of the bitter herbs with which the Israelites ate the paschal lamb, but our use of it with roast lamb, particularly about Easter time, inclines me to suppose it was." The species of mint most common in Eastern countries at the present day is the horse mint (Mentha sylvestris); which is plentiful in Syria, and, according to Russell, is found in the gardens at Aleppo.—Scrip. N. H.; S. Dict., vol. ii.; and Russell's Aleppo.

MYRTLE.—This beautiful plant, so frequently mentioned in the prophetic Scriptures, is still very plentiful in Bible lands. In a favourable climate it grows almost to a tree. In the gardens of Rhoda in Egypt, it often exceeds eight feet in height; and presents,

when in flower, an appearance of surpassing beauty. The blossom is sometimes snowy white, and sometimes a rich crimson; the foliage generally of a polished green, with translucent spots upon the leaves; and from some species an edible fruit is obtained. wonder that a plant of such loveliness should have suggested some of the most impressive imagery of the Bible. Take, for example, the familiar passage in Isaiah. "I will plant in the wilderness . . . the myrtle," or, again, the equally familiar verse in the same sacred book, "Instead of the thorn shall come up the fir-tree, and instead of the briar shall come up the myrtle-tree" (xli. 19, and lv. 13). Kitto points out, that as these plants "often grow in the shaded valleys between two neighbouring mountains, where all is calm and tranquil, they naturally become associated in the mind with everything that is lovely and peaceful. The myrtle-trees offered a choice emblem of peace and quietude, and gave a living freshness to the annunciation of the angel, 'We have walked to and fro through the earth, and, behold, all the earth sitteth still, and is at rest" (Zech. i. 8, 10, and 11).

The correctness of the Authorised Version in rendering the original word hados by myrtle, is proved by the existence of the same noun in the Arabic, where it is used for the same plant. "There are several species of the genus myrtus, but the myrtus communis is the only kind denoted by the Hebrew hados."—Illus. Com., vol. iv.; S. Dict., vol. ii.

ONYCHA.—If the onycha of Scripture is the same as the gum-benzoin, as some suppose, it is certainly one of the most fragrant of gums, though the plant on which it is found is neither large nor showy. Dr. Kitto observes that "the only hint about the onycha that we can find is in the Arabic version, where we meet with ladana, suggesting that gum-ladanum was the drug in question. It is the produce of the Cretan cistus (cistus ladaniferus), being a secretion of the leaves, which is swept off by the beard of the browsing goats, from whence it is collected. The shrub is a native of the Levant, the isles of the Mediterranean, and Arabia."

Others, however, hold quite a contrary idea on this subject. They conceive that the onycha is an animal, and not a vegetable substance—in fact, that it forms part of the shell of a mollusc, and is probably the same as that referred to by Pliny as the "onyx," and by Dioscorides as the ovut. The writer thus speaks of the ονυξ: "The onyx is the operculum of a shell-fish resembling the purpura, which is found in India in the nardproducing lakes; it is odorous, because the shell-fish feed on the nard, and is collected after the heat has dried up the marshes. That is the best kind which comes from the Red Sea, and is whitish and shining; the Babylonian kind is dark, and smaller than the other: both have a sweet odour when burnt, something like castoreum."—Illus. Com., vol. i.; Uni. Herb., vol. i.; Scrip. Herb.; and Dioscorides, ii. 10.

REEDS, RUSHES, AND PAPYRUS. (See Chapter VIII.)

ROSE OF SHARON.—This, perhaps, is the favourite flower of the Christian botanist. It is a flower dear to all Christians. When shall we be weary of recalling those levely and leving words. "I am the rose of Sharon, and the lily of the valleys"?—words uttered of old by the Preacher-king who reigned "over Israel in Jerusalem," and spoken of Him who was the true Solomon, even David's Lord. A Persian poet says, "When the rose comes into the garden, the violet prostrates itself before it with its face to the ground;" and surely the poet's fancy is not at fault here. the violet only, but the whole creation, must one day bow before the Rose of Sharon and acknowledge His supremacy, as the Scriptures clearly testify (Phil. ii. 9, 10, and 11). But we have rather to speak of the flower than the Person it typifies. The rose is found in almost every country throughout the world, and is universally recognised as the queen of flowers. "In the Persian language," says Kitto, "there is perhaps no poem in which allusion to it, and comparisons drawn from it, do not occur even to repletion, although diversified by reference to the various species and colours in which that renowned flower appears." In many parts of the East it is not only cultivated as a garden plant for its beauty, but also in extensive fields on account of

¹ We do not like to call in question a favourite interpretation, but it is only right to state that many commentators attribute this language to the *bride* and not the bridegroom; though this, of course, does not affect in any way the moral fitness of the statement that follows.

its scent, which is extracted by artificial means, and sold in the preparation called rose-water. The particular species mentioned in the Song of Solomon is believed to be the cistus roseus of Linnæus, the flower of which is exceedingly delicate and beautiful. It is plentiful in the plain of Sharon, where, favoured by a rich soil and sheltered situation, it grows to perfection; while the gum which exudes from it, called ladanum, is in great request among the Arabs. This ladanum is thought by many to be identical with the drug twice mentioned in the book of Genesis, where the word is rendered "myrrh" (xxxvi. 25 and xliii. 2).

All are not agreed, however, that the "rose" is denoted by the original. The Hebrew word (chabats-tseleh) points etymologically to some bulbous plant, and perhaps the polyanthus narcissus (suggested by Dr. Royle) is intended. Michaelis, Gesenius, and some other learned commentators have argued for the autumn crocus.—Illus. Com., vol. iii.; Scrip. N. H.; Cyc. Bib. Know., vol. ii.; and S. Dict., vol. iii.

Rue.—The rue spoken of in Scripture is doubtless the common ruta graveolens, which has been found in recent times on Mount Tabor, and grows to the height of nearly two feet. It is a strong, coarsesmelling herb, formerly in great request both as a condiment and a medicine; but now little used save in our courts of law. Its use in this connection is that of a disinfectant. Criminals are apt to bring contagion from their cells, and thus endanger the

lives of others, so it is strewn along the dock before them. "The Talmud," says Mr. Houghton, "enumerates rue amongst kitchen-herbs, and regards it as free of tithe, as being a plant not cultivated in gardens." In our Lord's time, however, rue was doubtless a garden-plant, and therefore titheable, as is evident from our Lord's words, 'These things ought ye to have done'" (Luke xi. 42).—Scrip. N. H.; and S. Dict., vol. iii.

SAFFRON. (See Crocus.)

Sope, or Herb of the Washers.—The mention of this useful detergent, in connection with the botany of the Bible, might well provoke a smile; but the *sope*



of Scripture is actually a vegetable production, and hence there is no impropriety in naming it. The Hebrew word (borith), is generally understood to refer to vegetable alkali, or some kind of potash, such as forms one of the usual ingredients

in our soap. Referring to the "fuller's soap" of Malachi iii. 2, Dr. Kitto observes that it is doubtful what particular plant, if, indeed, any particular plant is intended, as there are so many plants in the East which

furnish the requisite alkali. Robinson alludes to a species to be found near Sinai, "from which the Arabs obtain a substitute for soap, by pounding it when dry between stones, and mixing it with the water in which they wash their linen;" and elsewhere he speaks of meeting with "an herb, with a smooth, shining, reddish stalk, and small glass-like leaves, the ashes of which are called alkali from their peculiar alkaline properties." We also read of a plant which "grows in immense quantities round the shores of the Dead Sea, especially the southern extremity. It is burned by the Arabs for kelp, as in the north of Scotland. The ashes are used in the manufacture of soap. It is also called kalli by the Arabs, from which our word kali, or alkali, is derived."—Robinson's Researches, vols. i. and ii.: and Jewish Interpreter.

Spelt. (See Fitches.)

SPIKENARD.—This plant, so valued for the precious oil which is obtained from it, is still common in the East. It is brought in large quantities from the Himalayas, where it grows high up on the mountains, and then is distributed by the merchants over India. A considerable quantity is still brought by the ancient overland route to Syria, where it is prepared for use in two ways. The one way is to mix the substance or oil with other perfumes, and confine it in small bags; and the other, to extract the essence, and seal it up in little phials or boxes. The plant is a perennial species of valerian, without flower or fruit, and grows

in clusters to the height of three or four inches. common with other perennial species of that order. the oil is secreted in the roots. The costliness of the spikenard mentioned in the gospels is readily accounted for by the distance from which it must have been brought, and the difficulty of procuring it. ancient times," says the Rev. C. A. Johns, "this drug was conveyed by way of Arabia to Southern Asia, and thus it reached the Hebrews. Judas valued the box of ointment with which Mary anointed our blessed Lord's feet at two hundred denarii—£6, 9s. 2d. the Romans it was considered so precious, that the poet Horace promises to Virgil a whole cadus, or about three dozen wooden bottles of wine, for a small onyx-box full of spikenard. It was a Roman custom, in festive banquets, not only to crown the guests with flowers, but also to anoint them with spikenard. Eastern nations procure from the mountains of Austria other kinds of valerian to perfume their baths. roots are grubbed up, with danger and difficulty, by the peasants of Styria and Carinthia from rocks on the borders of eternal snow; they are then tied in bundles and sold at a very low price to the merchants. . . . The seeds of one kind of valerian were used in former times in the process of embalming the dead, and some, thus employed in the twelfth century, on being removed from the cere-cloth in the present century and planted, have vegetated. The roots of our common valerian are still used in medicine." The word in the original Hebrew is nerd, and in the Greek, nardus.—Illustrated

Botany of the Himalayan Mountains; Asiatic Researches, vol. ii.; and Flora of the Field.

STAR OF BETHLEHEM. (See Dove's Dung.)

SWEET CALAMUS. (See Calamus.)

TARES.—The zizania of the New Testament, translated "tares" in the Authorised Version, have been shown pretty conclusively to be the weed called "darnel." This weed, before it comes into ear, "is very similar in appearance to wheat; hence the command that the zizania should be left till the harvest, lest while men plucked up the tares 'they should root up also the wheat with them'" (Matt. xiii. 25). The Rev. S. S. Wilson has an interesting reference to this weed in his volume of travels. "The wife of religious ministers," he writes, "is styled in Greece Mrs. Priestess. one occasion I observed Mrs. Priestess and her children. during my stay in their house, appear very much indisposed, and inquired the reason. 'Sir,' said she, 'we have eaten some zizania.' This is the word translated tares in the Gospel of St. Matthew. They had unwittingly eaten this deleterious grain as genuine corn, and I observed that headache and sickness were the result. The zizania is considered to be the plant called darnel, well known to the people of Aleppo. It grows among corn: the reapers do not separate the plant, but, after threshing, they reject the seeds by means of a fan or sieve. So in the parable the plant is described as growing among corn: the reapers do not separate itboth grow together until the harvest."—S. Dict., vol. iii.; S. S. Wilson's Travels.

WORMWOOD. - Wormwood has a figurative use in Scripture, and denotes bitterness and death; as in Prov. v. 4, "Her end is bitter as wormwood;" and in Rev. viii. II, "the third part of the waters became wormwood; and many men died of the waters, because they were made bitter." The plant alluded to is believed to be the common wormwood (artemisia absinthium), though this particular species—bitter and disagreeable as it is-is not distinctly poisonous. found wild in the rocky places, roadsides, rubbish, and farmyards, of almost every part of Europe, and flowers from July until October. But possibly some more hurtful species is intended; and, if so, perhaps it would be the plant with small, ash-coloured leaves, referred to by Ranwolf, which is said to grow abundantly in Palestine. It is described as having several short stalks, full of small yellowish seeds, to smell disagreeably, and to be both salt and bitter to the taste.— Uni. Herb., vol. i.; C. Dict.; S. Dict., vol. iii.; and Illus. Com., vol. i.

CHAPTER III.

THE TREES OF THE BIBLE.

Algum-tree—Almug-tree (see Algum)—Aloe—Almond—Ash—Balm of Gilead tree—Bay—Box—Cedar—Chesnut—Cypress—Ebony—Fir—Frankincense—Gopher-tree—Juniper-tree—Larch (see Ash)—Lign-aloe—Lime (see Teil-tree)—Linden (see Teil-tree)—Locust-tree—Mulberry-tree—Mustard-tree—Myrrh (see Balm of Gilead tree)—Oak—Oil-tree—Olive—Palm—Panag—Pine (see Fir)—Plane-tree (see Chesnut)—Poplar—Shittah-tree or Shittim—Stacte (see Balm of Gilead tree)—Sycamine (see Sycamore)—Sycamore—Teil-tree—Terebinth (see Oak)—Thyine-tree (see Algum-tree)—Turpentine-tree (see Oak)—Willow.

THE remarks with which we have introduced our chapter on Bible plants will do equally as well for the subject before us, and it only remains for us to speak of the trees in detail. Treating them in alphabetical order, we have first—

The Algum-Tree.—"The tree called in Scripture the Algum, Almug, or Thyine tree, is still met with under a different name in the north of Africa. The wood is of a dark nut-brown colour, close grained, and very fragrant. It was used in building the temple at Jerusalem and the beautiful palaces of King Solomon, and is mentioned by ancient writers as being particularly desirable, from its durability, for all such

buildings. The Romans had tables made from this wood in their banqueting halls, and 'they were valued according to the veins, knots, and colours which variegated them; and were talled from those accidents,' tiger, leopard, peacocks' feather tables, &c. We read of one table of this kind which the Emperor Tiberias had plated all over with one of the precious metals. This tree yields the gum sandarach, used in preparing parchment, and therefore very necessary to the Jews, who used so large a quantity of that article in the copies of their Scriptures and in their phylacteries. St. John mentions this tree as among the precious things that shall no longer attract the merchants of the earth to fallen Babylon" (Rev. xviii. 12). almug-trees that were used in Solomon's day for the temple and other purposes, were brought from Ophir by the navy of the king of Tyre (I Kings x. II). Kitto is inclined to think that the algum-trees were a species of pine, and suggests the pinus deodara of India, which affords a very beautiful wood of great fragrance; but Dr. Hooker remarks that "the deodar is out of the question." The same learned botanist objects also to the identification of the Algum or Almug-tree with the Thyine, and apparently favours the opinion of Dr. Lee, adopted with some reserve by the Rev. William Houghton in Smith's Dictionary, that the red sandal-tree is intended. Dr. Royle (to quote a fourth opinion) suggests that a species of white sandal-tree is referred to .- Scrip. Herb.; Illus. Com., vol. iii.; and S. Dict., vol. iii.

The ALMUG-TREE. (See Algum.)

The ALOE.—The plant of this name is not mentioned in Scripture; the word rendered aloes in our version refers rather to the gummy substance which is procured from the leaves of the plant by pressure and incision. In Psalm xlv. 8, however, the lign-aloe is intended—which see. After the juice has been expressed from the plant, "it is set by in an airy place in the shade, and carefully skimmed for many days successively; when it is sufficiently thick it is laid out in the sun to dry, and then packed in skins or boxes. The taste is intensely bitter, but the smell very agreeable. It was one of the drugs used by the ancients, particularly the Egyptians, for embalming the dead. The strong sweet odour, and the bitterness combined, kept off destructive reptiles and insects; and myrrh, having the same qualities, was employed, together with aloes, for the same purpose."

The aloe is "a beautiful plant, growing to the height of five or six feet, with vivid green leaves, and a flower of scarlet, white, and green. It owes its name to the island of Socotra, lying at the mouth of the Red Sea; and probably the method of collecting and managing the juice, which gives the Socotrine aloe the superiority over others, is a relic of the ancient Egyptian priests and embalmers, who made so much use of it, and possibly might have had their agents on the island, near as it is to Egypt, for the purpose of buying it up."

Mr. Barrow saw large quantities of the common aloe on the plains that surround Mossel Bay, and elsewhere saw other species of the plant rising in spikes of blood-red blossoms to a height of fifteen feet.—South Africa; Scrip. Herb.

The Almond-Tree.—This tree resembles the peach in leaf and blossom; but the fruit is longer and more compressed, the green outer coat is thinner and drier when ripe, and the shell of the stone is not so rough. The kernel contained within the shell is the only



esculent part. seems to have derived its Hebrew name from its early blossoming, and we find an allusion to this property in the following passage :- " Moreover the word of the Lord came unto me, saying, Jeremiah, what seest thou? And T

said, I see a rod of an almond-tree. Then said the Lord unto me, Thou hast well seen: for I will hasten my word to perform it" (Jer. i. 11, 12). The chiefs of the tribes had almond-rods, perhaps emblematical of the vigilance which became them, as the leaders

of God's chosen people (Num. xvii. 6-8).—Bible Treasury, vol. iii.

The Ash.—There seems to be no doubt that theword translated ash in the Authorised Version (Isa. xliv. 14) would be with greater propriety rendered larch. The Seventy so translate it, and the context appears to support that rendering. It is described as "a fast growing tree, and its wood is scented like the cedar of our black-lead pencils. The rapidity of its growth would naturally recommend itself to one who wished to have a god hewn out of the tree which he had himself planted ('he planteth an ash . . . and the residue thereof he maketh a god,' Isa. xliv. 14, 17); while the freedom with which any kind of deal burns when kindled, rendered it very proper for fuel ('he will take thereof, and warm himself; yea, he kindleth it, and baketh bread, Isa. xliv. 15). It is a native of warm climates, and produces a kind of Venice turpentine; and the inner portion of the wood gives forth a gum which so nearly resembles gumarabic, that the experienced can scarcely tell the difference."—Illus. Com., vol. iv.

The Balm of GILEAD TREE.—This tree attains to the height of fourteen or fifteen feet, and its diverging branches bear leaves at their extremities. These leaves are pennate or winged, like those of the terebinth, and are evergreen in their duration. In general appearance the tree may be likened to an old hawthorn, but the foliage is scanty and more ragged. The balsam

exudes from the bark, which is smooth, shining, and of a whitish-grey colour, with brown blotches. So highly prized was this gum in ancient times, "that during the war of Titus against the Jews, two fierce contests took place for the balsam orchards of Jericho; the last of which was to prevent the Jews from destroying the trees, which they would have done in order that the trade might not fall into the enemy's hand. . . . An imperial guard was appointed to watch over them, but such care has been unavailing; not a root nor a branch of the balsam-tree is now to be found in all Palestine."

Myrrh and stacte are also obtained from a species of balsam-tree—namely, the balsamodendron myrrha; and the former article, together with spicery and balm, constituted the merchandise which the company of Ishmaelites (mentioned in Gen. xxxvii. 25) were bringing overland from Gilead. Stacte was simply a finer kind of myrrh. "It was the spontaneous exudation from the tree producing myrrh, whereas that drug was produced by making incisions in the bark."—
Illus. Com., vol. i.; and Scrip. N. H.

The BAY-TREE.—The only mention of the bay-tree is found in Psalm xxxvii. 35: "I have seen the wicked in great power, and spreading himself like a green bay-tree;" and many think that this reading is erroneous. Kitto says that he is not aware of any authority for it, except the very feeble one which is offered by some of the older of the modern versions in this country and on

the continent. The marginal reading, which almost all commentators seem inclined to adopt, runs thus: "I have seen the wicked in great power, and spreading himself like a green tree that groweth in his own soil:" and that being the case, we need not prolong our remarks on the bay-tree.

The Box-Tree.—This tree is an evergreen; and it is one of the trees named in Isaiah, which, in days to come, will be seen in its luxuriance in the wilderness, along with the fir-tree and the pine (xli. 19). It is thought that the word "ivory," in Ezekiel xxvii. 6, ought to be translated boxwood; as it seems more likely that the rowers' benches would be made of boxwood than of ivory. The prophet says expressly that the materials of those benches were brought from the isles of Chittim, the chief of which islands (supposed to be Sardinia) abounds in box-trees. The roots of this tree were anciently used for such articles of furniture as admitted of carving, jewel-cases, &c., and the yellowish wood of the trunk was made into writing-tables.—Scrip. Herb.

The CEDAR.—The cedar of Lebanon is a tree often referred to in Scripture. "In early times it appears to have grown abundantly in Lebanon, and to have formed its distinguishing feature. In later times there has been a great diminution in the number of cedars in Lebanon, so that, in 1832, there were only seven remaining, most of them apparently of a great age. The cedar is a wide spreading evergreen tree, from

fifty to eighty feet high, with a large trunk, numerous large and long branches, which extend in a horizontal manner nearly at right angles from the trunk, and with the evergreen leaves form a spacious shady covering. It is not liable to the attacks of climbing plants. How beautifully does the prophet describe the character of the cedar when he speaks of its high stature, its top among the thick boughs, its multiplied boughs, its long branches, and its shadowing shroud (Ezek, xxxi, 3-7). It was pre-eminently distinguished by its exalted growth. It is said in I Kings iv. 33 that Solomon 'spake of trees, from the cedar tree that is in Lebanon' (as being the most conspicuous and noble) 'even unto the hyssop which springeth out of the It is also spoken of as 'the glory of Lebanon' (Isa. xxxv. 2; lx. 13); and the abundance of its fruit or cones is noticed in Psalm lxxii. 16. The strength and durability of the tree was a subject of common remark, and the Psalmist emphatically describes the power of the Lord when he says, 'The voice of the Lord breaketh the cedars; yea, the Lord breaketh the cedars of Lebanon' (Ps. xxix. 5). In Psalm xcii. 12. the righteous man is represented as growing like a cedar in Lebanon. This seems to refer to his vigour. and to the outward active manifestations of his spiritual life, which, like the spreading branches, are conspicuous to all, and show the beauty of holiness. Numbers xxiv. 6, the people of God are likened by the wicked prophet to cedar-trees beside the waters; and in Psalm lxxx. 10, Israel is spoken of as sending out

her boughs like the goodly cedars. How well do these figures picture the believer's growth in grace! He is like a goodly and excellent cedar (Cant. v. 15), vigorous and evergreen, showing forth the power and glory of God, fixed in the Rock of Ages, whence are all his springs, which refresh and invigorate him as a well of living waters and streams from Lebanon."—Botany and Religion.

The CHESNUT.—The armon—translated chesnut in our version—is really the platanus orientalis or plane-The term platanus is from the Greek platus, "broad," and "applies to the diffusive shade of this delightful tree, which was, in fact, the quality that recommended it to the attachment of Eastern nations. Hebrew appellation armon comes from a root which signifies "to be stripped," and agrees very well with the plane, where the bark spontaneously peels off, and. leaves the trunk apparently bare. The chesnut has a wide-spreading top, but its bark, though curiously cleft into oblong cells, does not peel off, as in the plane and Pliny tells of a Roman consul, the governor birch." of a province in Asia, who chose an old plane-tree for his bed-chamber and banqueting-room. "The tree overhung a pure fountain, and its trunk was hollow with age, while its branches overshadowed the meadow: and he liked to hear the rain dropping upon the leaves above, while he sat securely sheltered in the heart of the tree." The armon is mentioned in Genesis xxx. 37 and Ezekiel xxxi. 8.—Scrip. Herb.; and Illus. Com., vol. i.

The Cypress.—This sombre-looking tree is well known in our own country, where we associate it either with the churchyard and the tomb, or with the old-fashioned gardens of our country families. It is universally planted in Eastern burial-grounds. "The heathen used to make their funeral piles of cypresswood, probably imagining that its taper head, rising straight and high, pointed to the ascent of the departing spirit. The heathen writers mention that the oldest idol statues were made of cypress wood, which is remarkably hard and durable." This reminds us of the prophet's reproachful language to the idol-makers in Isa, xliv. 14 and 15.

The EBONY-TREE.—Of this tree the wood only is mentioned in Scripture, namely, in Ezekiel xxvii. 15: "They brought thee for a present horns of ivory and ebony." The ebony is the heart-wood of a family of trees which grow rather plentifully in India, Eastern Africa, and elsewhere. The tree rises to a height of twenty feet before it branches. The branches are many and stiff, and the fruit is about the size of a small apple, yellow and pulpy. The bark is valued by the Hindoos for its medicinal properties, and the fruit is eaten. The white wood, which surrounds the heart or ebony, is soft, and soon falls a prey to insects.—Illus. Com., vol. iv.; and Scrip. N. H.

The Fir and Pine.—Kitto appears to think that the pinus laricio or Corsican pine is the species referred to in most of the Biblical references to the fir and

pine, though he also believes that the Hebrew word berosh was a general name for several kindred of trees, and not for one species in particular. The Corsican pine very much resembles the Scotch fir in appearance as well as in the structure of the cone. The wood, however, is more compact and flexible than that of the Scotch fir, and is therefore better adapted to the purposes indicated in Isa. xli. 19 and Ezekiel xxvii. 5, namely, for the masts and planking of ships. It is a noble tree, and sometimes rises to the elevation of 150 feet. The "green fir-tree" of Hosea xiv. 8 is thought to be the Pinus pinea, or stone pine, which produces an edible fruit within the cone. The meat of each nut is as sweet as an almond and far more wholesome.

FRANKINCENSE.—The perfume of this name is ob-

tained in much the same way as myrrh (see Balm of Gilead Tree), but from a different tree — the arbor thuris. It is described as "a vegetable resin, brittle, glittering, and of a bitter taste, used for the purpose of sacrificial fumigation" (Exodus xxx. 34-36). The Hebrews obtained it from Arabia, but the



frankincense now imported from that country is of a very inferior kind.—S. Dict., vol. i.

GOPHER-TREE.—"Gopher wood" is mentioned in Gen. vi. 14 as the wood of which the ark was made; but the Hebrew phrase which has been so translated in our version would be better rendered, "trees of Gopher." What these trees were we have no means of ascertaining, and all that we can offer to the reader is, at the best, conjecture. Aben Ezra and the Rabbis generally are in favour of the cedar, and "this rendering has been defended by Pelleties, who refers to the great abundance of this tree in Asia, and the durability of its timber;" but Celsius, Hasselquist, and Gesenius favour, on philological grounds, the cypress. There is certainly much similarity between the Hebrew gopher and the Greek kupar, which means "cypress;" and it is well known that this tree grew in abundance in the plains of the country where Noah Of its suitability for the purpose for which the trees in question were here required, we need not speak, while its fame for durability and other qualities looked for in the timber of vessels has been long established. If, then, the cypress is intended, we may add that the particular species would probably be the Cupressus sempervirens, or evergreen cypress, a straight and elegant tree of the cone-bearing family, still to be met with in most of our old English gardens. wood is sweet-smelling, and of a dusky brown-red colour.—S. Dict., vol. i.; Uni. Herb., vol. i.; Hewlett's Com., vol. i.; Illus. Com., vol. i.

The JUNIPER-TREE.—This is another of the wrong

translations of the Authorised Version. The Hebrew word is Rothem, and is the same as the present Arabic name for a species of broom-plant, with small, whitish variegated blossoms, which is found in the watercourses and valleys of some parts of the East. Our name for it is the retem. Dr. Wilson thus speaks of the plant:-"The valley in which we rested had some beautiful and large specimens of the white broom or retem. was under such a bush that Elijah, when he had gone a day's journey in the wilderness, came and sat down, and requested for himself that he might die, and under which he lay and slept. Job speaks of its roots affording food in the time of want and famine. deserves to be noticed that Rithmah, one of the stations of the Israelites in the desert (Num. xxxiii. 18), means the 'place of the broom.' At this time we spoke four 'ships of the desert' bound for Cairo, and loaded with 'coals of juniper,' or, in other words, with charcoal made from the roots or branches of the retem, or white broom of the desert, the identical bush referred to by the sacred writer."—Lands of the Bible; Rob. Res., vol. i.

The LARCH. (See Ash.)

The LIGN-ALOE.—Almost all commentators, Jewish as well as Christian, are agreed that the *ahaloth* of Scripture (rendered "lign-aloes" in our version) denotes a fragrant wood from India. It has been identified, in comparatively recent times, with the *aquilaria* agallocha or eagle-wood tree of Silhet and other parts,

which grows to the great height of one hundred and twenty feet. "The bark of the trunk is smooth and ash-coloured, that of the branches grey, lightly striped with brown. The branches themselves are each divided into two at the extremities, and the young shoots are covered with white silky hairs. The wood is white, and very light and soft. It is totally without smell, and the leaves, bark, and flowers also. . . . The incense or perfume of the lign-aloes is procured from the wood when in a peculiar state, and the procuring it is a precarious and tedious business. Few trees contain any of it, and such as do have it very partially distributed in the trunk and branches."—Illus. Com., vol. iii.; and Scrip. Herb.

The LIME. (See Teil-tree.)

The LINDEN. (See Teil-tree.)

The Locust-Tree.—This tree demands a passing notice, as some have thought that the locusts which John the Baptist subsisted on in the wilderness were the fruit of that tree, and not the locust insects, as others suppose. "This fruit when ripe," says Miss Rogers, "is like a large crooked bean-pod, brown and glossy, filled with large seeds; and it is so nutritious that the children of the poor live entirely on it during the season, requiring no other food; for it contains all the necessary elements for the support of life—starch, sugar, oil, &c., in proper proportion. I found it, when new, rather too sweet to suit my taste, but children

seem to enjoy it, and they thrive on it, eating the shell as well as the seeds. When the fruit is stored, it becomes somewhat dry and less sweet; but on being soaked in honey it is like new fruit. The Arabs all like sweet food; and of many a man of Judea and Galilee, as well as of John the Baptist, it might be said, 'His meat' (for a season) 'was locusts and wild honey' (Matt. iii. 4). The Arabic name for the locust-tree is 'Kharûb,' and the beans are commonly called 'St. John's bread.'"—Domestic Life in Palestine.

The Mulberry-Tree.—The mention of this tree occurs in 2 Sam. v. 24 of the Authorised Version, but there is much diversity of opinion as to the meaning of the Hebrew term (becaina). Some translate it "grove of weeping," others "weeping willow," and others "hills." Kitto goes no farther than to express the opinion that some tree or shrub is intended. The Jewish writers, however, generally understand the mulberry-tree to have been denoted. "The tree is frequent in Syria and Lebanon. It is much less common in Palestine; but its mere presence seems sufficient to attest its ancient existence there."—Illus. Com., vol. ii.

The MUSTARD-TREE.—To explain all the ingenious theories which men have brought forward from time to time, during the long agitated controversy on this subject, would be a difficult and tedious task, and we do not propose to attempt it. The controversy had its rise in the supposition that the common mustard-plant

failed to fulfil the demands of the Biblical allusions (Matt. xiii. 31; Mark iv. 31; and Luke xiii. 19), but it has yet to be proved that this supposition is correct. It was objected that the mustard plant would not meet the case for three reasons:—

- 1. It never attained to the dignity of a tree.
- 2. The fowls of the air could not build their nests in the branches.
- 3. The mustard seed was not "the least of all seeds." Now in answer to the *first* objection, Dr. Kitto observes that the word *dendron*, a tree or shrub (which occurs in the passages in question), can be also applied to a plant with an herbaceous stem, and quotes Burckhardt and Dr. Bloomfield for his authorities. The latter, he says, adduces examples from ancient Greek writers, in which the word is applied to denote not only a tree or shrub, but an annual plant with an herbaceous stem: and such is the mustard.

In answer to the second objection, we may point out that the Evangelists nowhere assert that the birds did build their nests in the branches. That is quite a gratuitous supposition for which the language of Scripture is not accountable, but only certain commentators on the passage. The parable says that the fowls of the air lodged in the branches, and surely that would be no strange thing, when we read in Job xxx. 7 that the birds sheltered beneath the nettles!

With regard to the *third* objection, we may say, with the learned writer in Smith's Dictionary, that "the expression, 'which is indeed the least of all

seeds,' is in all probability hyperbolical, to denote a very small seed indeed, as there are many seeds which are smaller than mustard. 'The Lord in His popular teaching,' says Trench, 'adhered to the popular language;' and the mustard-seed was used to denote anything very minute."

There is an account in the Babylon Talmud of a man in Shechem who obtained enough wood from one bough of a mustard-tree to cover the shed of a potter; and in the Jerusalem Talmud we hear of a man who had such a tree in his field, and was wont to climb it, as men climb into a fig-tree. Surely these trees, at least, can have been of no mean size! A traveller in Chili writes thus: "The mustard-plant thrives so rapidly that it is as big as one's arm, and so high and thick that it looks like a tree. I have travelled many leagues through mustard groves, which were taller than horse and man; and the birds built their nests in them."—Illus. Com., vol. v.; S. Dict., vol. ii.; and Trav. in Chili.

Myrrh. (See Balm of Gilead-tree.)

The OAK.—The word rendered oak in our version is generally understood to denote the terebinth or turpentine-tree, a fine specimen of which is mentioned by Robinson, who speaks of it as "spreading its boughs far and wide like a noble oak." "Under the shade of such a tree," he continues, "Abraham might well have pitched his tent at Mamre (Gen. xviii. 4). It is not an evergreen, as is orten represented; but its small,

feathered, lancet-shaped leaves fall in the autumn, and are renewed in the spring. The flowers are small, and followed by small oval berries, hanging in clusters from two to five inches long, resembling much the clusters of the vine when the grapes are just set. From incisions in the trunk there is said to flow a sort of transparent balsam, constituting a very pure and fine species of turpentine, with an agreeable odour and a mild taste, and hardening gradually into a transparent gum."—

Rob. Researches, vol. iii.

OIL-TREE.—Probably the zackum-tree of the Arabs, the oil of which is in high repute on account of its medicinal properties. It is a tree of small stature, very abundant in the East (Isa. xli. 19).

The OLIVE.—This tree gives its name to an entire order of plants—the Oleaceæ, comprising the ash (of which we have already spoken), the lilac, the privet, and other well-known trees and shrubs. Syria is its native land, and it is still extensively cultivated in Palestine, which may be truly called "the land of olives" (Deut. viii. 8). The tree is of low stature, scarcely ever exceeding thirty feet in height; the wood is hard-grained and heavy, yellowish in colour, and of an agreeable odour. In appearance the tree is not unlike the willow, the leaves being narrow and hoary. The blossoms, which appear about May or June, are small and white, and easily blown from the tree; a fact to which Job alludes when describing a wicked man: "He shall cast forth his flower as the olive" (xv. 33).

So numerous are the blossoms, that when they are thus cast off it is as though snow were falling from the branches. The fruit, when ripe, is similar to the damson; and the French, who eat it with their bread, consider it a wholesome and agreeable condiment.

The Israelites made use of olive-branches in the construction of their booths at the Feast of Tabernacles. and obtained them, doubtless, from the Mount of Olives (Neh. viii. 15), The wood was used by Solomon in the construction of the Temple, for the doorposts of the edifice, the doors of the "oracle," and the two cherubim (I Kings vi.). The oil obtained from the tree was (and, indeed, still is) used as an article of food (Ezek, xvi. 13); for anointing the head and body (Ps. xxiii. 5 and xcii. 10); for burning in lamps (Exod. xxvii. 20); as a medicament (Isa. i. 6, margin); in embalming (Mark xiv. 8); in sacrifices (Exod. xxix. 40); in other sacred rites (Gen. xxviii. 18); and as an article of commerce (Ezek. xxvii. 17). Solomon gave to his Tyrian ally, Hiram, in exchange for fir and cedar trees, "twenty thousand measures (or 150,000 gallons) of pure oil" every year; which, when considered in connection with the vast quantities of oil required by the Israelites for their own use, will give some idéa of the astonishing fertility of the olive-yards of Palestine in the days of their prosperity.

"The olive-tree is frequently alluded to in the poetic portions of Scripture. The great Hebrew leader, in his last and sweetest song, reminded Israel of One who had given to the ungrateful tribes 'oil out of the flinty rock' (Deut. xxxii. 13); and Job remembered that, in the days of his prosperity, the rock poured him out 'rivers of oil' (xxix. 6). These references are explained by the fact that the olive delights in a rocky, flinty soil; and it is even said that if, from the depth of the soil, it is unable to extend its roots into the underlying rock, the tree languishes, and its berries are small and devoid of sap."—Groser's Bible Months and Illus. Com., vols. ii. and iv.

The PALM-TREE.—This graceful tree, so often referred to in the Word of God, will need but slight description. Its perpendicular, branchless trunk, with its cluster of broad fan-like leaves at the top, must be familiar (in picture, at least) to all readers; and the fact that from certain varieties of this tree the date is obtained must be equally well known. Dr. Thomson has written very beautifully of the palm:-"Look now at those stately palm-trees, which stand here and there on the plain, like military sentinels. with feathery plumes nodding gracefully on their proud heads. The stem, tall, slender, and erect as Rectitude herself, suggests to the Arab poets many a symbol of their lady-love; and Solomon long before them has sung, 'How fair and how pleasant art thou, O love, for delights! this thy stature is like to a palm-tree' (Cant. vii. 6 and 7). And Solomon further says, 'The righteous shall flourish like the palm-tree. that be planted in the house of the Lord shall flourish in the courts of our God. They shall bring forth fruit in old age' (Ps. xcii. 12-14). The royal poet has derived more than one figure from the customs of men and the habits of this noble tree with which to adorn his sacred ode. The palm grows slowly but steadily.



PALM-TREE.

from century to century, uninfluenced by those alterations of the seasons which affect other trees. It does not rejoice overmuch in winter's copious rain, nor does it droop under the drought and the burning sun of summer. Neither heavy weights which men place

upon its head, nor the importunate urgency of the wind, can sway it aside from perfect uprightness. There it stands, looking calmly down upon the world below, and patiently yielding its large clusters of golden fruit from generation to generation. bring forth fruit in old age. The allusion to being planted in the house of the Lord is probably drawn from the custom of planting beautiful and long-lived trees in the courts of temples and palaces, and in all 'high places' used for worship. This is still common; nearly every palace and mosque and convent in the country has such trees in the courts, and being well protected there, they flourish exceedingly. Solomon covered all the walls of the 'holy of holies' round about with palm-trees (I Kings vi. 29). They were thus planted, as it were, within the very house of the Lord; and their presence there was not only ornamental, but appropriate and highly suggestive; the very best emblem, not only of patience in welldoing, but of the reward of the righteous-a fat and flourishing old age, a peaceful end, a glorious immortality!"-Land and Book.

The Pannag.—We have included the "pannag" in our chapter on trees, because many regard it as the root of the panax-tree, called by the Chinese "ginseng." "This drug was highly valued by ancient physicians, and considered a cure for every disorder; in which light the Chinese still regard it. The ginseng or panax of Asia is a pleasant root to chew, and

resembles the liquorice root, except that it is warmer and more pungent." Parkhurst, supported by the Septuagint and Vulgate, thinks that the Hebrew word denotes some delicate spice, gum, or unguent; and another critic observes that a similar term occurs in Sanscrit (pannaga) for an aromatic plant. "The Syriac version, on the other hand, understands by it 'millet' (Panicum miliaceum); and this view is favoured by the expression in the Book of Sohar, quoted by Gesenius, which speaks of 'bread of pannag:' though this again is not decisive, for the pannag may equally well have been some flavouring substance, as seems to be implied in the doubtful equivalent given in the Targum."—Scrip. Herb.; Hewlett's Com., vol. iii.; and S. Dict., vol. ii.

The PINE. (See Fir.)

The PLANE-TREE. (See Chesnut.)

The Poplar.—The Hebrew word translated poplar in Genesis xxx. 37, of our version, denotes whiteness, and critics have therefore no hesitation in thinking that the "white poplar" is intended. This tree is mentioned by an old writer, Theophrastus, as growing in Egypt and Syria; and in the present day it occurs very frequently in Persia, Syria, and Palestine. The timber obtained from it is converted into household utensils, and sheep feed upon the dry leaves in winter. One of the charges against apostate Israel was, "They burn incense . . . under . . . poplars" (Hos. iv. 13).

—Ilus. Com., vol. i.; and Scrip. N. H.

The SHITTAH-TREE or SHITTIM.—This tree is, without doubt, correctly referred to some species of acacia, of which three or four kinds occur in Bible lands. The wood of this tree was extensively employed in the construction of the Tabernacle, the boards and pillars of which were made of it; but none of the varieties of the tree now to be found in Palestine would be sufficiently large to yield planks of the size mentioned in Exod. xxxvi. 21; though there is an acacia that grows near Cairo which would easily meet the case. The wood is considered incorruptible, and is so hard and close-grained as to take an excellent polish; hence, perhaps, it was selected as a fit material for the ark, the table of shew-bread, and the altars of incense and burnt offerings. The well-known substance called gum-arabic is obtained from the bark. The tree is described as of middle size, with thorny branches and blossoms like golden balls, which hang gracefully among the leaves, and give a sweet smell. -Scrip. Herb. and S. Dict., vol. iii.

STACTE. (See Balm of Gilead-tree.)

The SYCAMINE-TREE. (See Sycamore.)

The Sycamore.—Dr. Thomson shows that the sycamore is the same with the sycamine tree, and that neither is the mulberry, as many critics maintain. He then brings out, with great clearness and force, the meaning of six different passages of Scripture in which the tree is mentioned. It is a tree generally

planted by the wayside, with giant arms, stretching often quite across the road. This accounts for its being chosen by Zaccheus, as at once easy to climb, and also as affording a good view of the Saviour as He passed along (Luke xix. 4). Again, the fruit is small, very insipid, and used only by the poorer classes. Hence a gatherer of sycamore fruit would belong to the humbler classes, as Amos implies (Amos vii. 24). The tree also strikes its roots to a great depth, and in size they correspond to the large branches above: thus giving great force to the Lord's words, "Say to this sycamine-tree, Be thou plucked up by the roots" (Luke xvii. 6). The mulberry-tree, on the other hand, is more easily uprooted than any other tree of the same size in the country. "The tree furnished almost the only wood the Egyptians had for general purposes, and, though light and porous, the coffins or cases of this wood, in which they enclosed their mummies two or three thousand years ago, still remain in perfect preservation." It is referred to as a heavy calamity, in Ps. lxxviii. 47, that the Lord destroyed the sycamore-trees of the Egyptians with frost.—Land and Book; Bib. Treas., vol. iii.; and Illus. Com., vol. ii.

The TEIL-TREE.—"This tree is better known to us as the *lime* or *linden-tree*. The blossom affords a fine pasture for bees, and in some parts of Europe an infusion of the flowers is used as a cure for headache. The timber is much valued; it is very durable, and

furnishes the material of which the Portuguese make the clogs always worn by them in wet weather. The bark furnishes sacking, cordage, &c., and garden-mats are wove from the soft inner part of it, and imported from Russia, where they are used for clothing and bedding in vessels. Strips of these mats, sometimes called bass-mats, are the common article used by gardeners for tying up flowers and plants." Israel is likened to a teil-tree in Isa. vi. 13.—Scrip. N. H. Some, however, have identified this tree with the oak. (See Oak.)

TEREBINTH. (See Oak.)

THYINE. (See Algum-tree.)

TURPENTINE-TREE. (See Oak.)

The Willow.—The term 'drab, rightly translated willow in our version, is doubtless generic, and includes several species of the large family of Salices or willows. The willow is "mentioned in Lev. xxiii. 40 among the trees whose branches were to be used in the construction of booths at the Feast of Tabernacles; in Job xl. 22 as a tree which gave shade to Behemoth (the hippopotamus); in Isa. xliv. 4, where it is said that Israel's offspring should spring up 'as willows by the watercourses;' and in the psalm which so beautifully represents Israel's sorrow during the time of the captivity in Babylon—'We hanged our harps upon the willows in the midst thereof' (cxxxviii. 2). With respect to the tree upon which the captive Israelites

hung their harps, there can be no doubt that the weeping willow (Salix Babylonica) is intended. This tree grows abundantly on the banks of the Euphrates, in other parts of Asia as in Palestine, and also in Africa." It is also well known in England, where it may be easily recognised by its pendulous branches and smooth, serrated, lance-like leaves.

The willow "is remarkable," says Mr. Johns, "for having been in different ages emblematical of two directly opposite feelings, at one time being associated with the palm, at another with the cypress. There can be no doubt that the dedication of the tree to sorrow is to be traced to the pathetic passage in the Psalms." The children of Israel still present willows annually in their synagogues, bound up with palm and myrtle, and accompanied with a citron; a relic of Judaism which has also been imitated in this country, though the custom has very nearly died out.—S. Dict., vol. iii.; Forest Trees of Britain, vol. ii.; Scrip. Herb. and Uni. Herb., vol. ii.

CHAPTER IV.

FRUITFUL PLACES.

Vineyards—Wild Vine—Vine of Sodom—The Fig—The Pomegranate
—The Apple—Nuts—Melons. Vegetables:—The Gourd—Cucumbers—Leeks—Onions—Garlio—Beans. Agriculture:—The
Plough—Sowing—Reaping and Gleaning—Threshing—Winnowing—Garnering the Grain—Irrigation.

We propose to treat in this chapter of the fruits and vegetables of the Bible, together with such objects of interest as may be included under the heading "Agriculture." An elaborate introduction to the chapter is not needed, and we shall therefore bring forward the subject which we have first to consider without any preliminary remarks.

VINEYARDS.—In any discussion on the fruitful places of the Bible, the vineyard naturally demands the first notice. Its typical importance throughout the pages of Truth must be familiarly known to all. "Canaan was well styled 'a land of vineyards' (Deut. viii. 8); and, despite its present depopulated condition, it is still deserving of the title. From the snow-capped peaks of Lebanon to the valley of Eshcol, and from the grassy plains of Abel beyond Jordan to the maritime coast, the vine formerly yielded its fruit in rich abundance; and from north to south it is still cultivated,

though of course to a far less extent. Sorek, Eshcol, Jirmuth, Abel, Helbon, Jazer, and Lebanon are the chief vine districts mentioned in Scripture; and the wines of Palestine and Syria bore a high reputation even among the heathen nations of antiquity. The produce of the vines of Judea claimed the pre-eminence, and those of Hebron are still peculiarly abundant and To this reference is made in the blessing productive. bestowed by the patriarch Jacob upon his fourth son. Judah-' Binding his foal under the vine, and his ass's colt under the choice vine; he washed his garments in wine, and his clothes in the blood of grapes; his eyes shall be red with wine, and his teeth white with milk' (Gen. xlix. 11, 12). From the vale of Eshcol, lying five or six miles west of Jerusalem, the spies procured the cluster of grapes, the size of which rendered it necessary to carry it 'between two, upon a staff' (Numb. xiii. 23). The valley of Sorek is supposed by some authorities to be the same as Eshcol. At any rate, its vines have the reputation of being the finest in Palestine. A cluster of grapes found in this valley in the seventeenth century is said to have weighed 261 lbs. avoirdupois. The vine of Sorek is frequently mentioned by the inspired writers, but our translators have generally rendered the words 'of Sorek' by the adjective 'choice,' or 'noble,' apparently without perceiving that a particular spot was intended" (Gen. xlix. II and Jer. ii. 21).

Both the Old and New Testaments afford us a good deal of information respecting vineyard culture and

management, from which the prophets of old derived much striking and beautiful imagery. Vines were chiefly cultivated on hill-sides. "The soil was embanked with stones, and formed into terraces, rising one above the other: fences made of thorns (Prov. xv. 19 and Hosea ii. 6) or of stones protected the vineyard from depredators. It was also customary to build a tower, on which a person stood to keep watch during the grape season. Our readers will remember the allusion to the 'tower' in the parable of the vineyard and husbandmen (Matt. xxi. 33). In another and more ancient parable (Isa. v. 1) the process of forming a vineyard is viyidly described:—

'My beloved had a vineyard
On a high and fruitful hill;
And he fenced it round and cleared it from the stones,
And he planted it with the vine of Sorek;
And he built a tower in the midst of it,
And he hewed out also a lake therein:
And he expected that it should bring forth grapes;
But it brought forth poisonous berries.'

"Israel is more than once spoken of by the sacred writers under the similitude of a vine. Thus in Psalm lxxx. 8-13:—

'A vine Thou didst bring out of Egypt:
Thou castedst out the nations, and plantedst it;
Thou preparedst the ground for it;
It spread its roots and filled the land.
The mountains were covered with its shade.
And with its tendrils the lofty cedars;
Its boughs extended to the sea,
And its branches to the great river.

Why hast Thou broken down its fences, So that every passenger croppeth it? The boar from the forest wasteth it; And the wild beasts of the field devour it.

"'To sit every man under his vine and fig-tree' is a favourite expression to denote prosperity and peace. In the present day 'the vine and the fig-tree are invariably found in the Moorish patio. The family grows up under this shade; the little ones sport, with the thoughtless glee of childhood, among the foliage, and the grave elders pass the greater part of their time in more serious conversation, and sometimes, doubtless, mere trifling gossip. They dwell under their own vine and fig-tree, none daring to make them afraid.' The Hebrews, like the Egyptians, had their vine arbours. The vines were trained up the trees, or on erect palisades of wood, or upon trellises of reeds. Sometimes they were sustained upon long poles, connected by bands of osier, upon which the branches extended across the intervals. To such pleasant retreats there is an allusion in the blessing bestowed upon Judah, already quoted. Judah was to tie his colt to the stem of one of the trees, and rest quietly beneath the shade of the overspreading vines.

"The pruning of the vine is frequently mentioned, as also the vine-dressers, and the pruning-hooks which they used (Lev. xxv. 3, 4; Isa. ii. 14, v. 6, lxi. 5; Mic. iv. 3; Luke xiii. 7). The vintage was a season of great rejoicing. To this the prophet Isaiah alludes:

—'In the vineyards there shall be no singing, neither

shall there be shouting: the treaders shall tread out no wine in their presses; I have made their vintage shouting to cease' (xvi. 10). So also Jeremiah:—'The Lord . . . shall give a shout, as they that



VINE ARBOUR.

tread the grapes; 'I have caused wine to fail from the wine-presses: none shall tread with shouting' (xlviii. 33)."

"The vineyards in Persia," says Mr. Morier, "are generally enclosed by high walls. The Persian vine-

dressers do all in their power to make the vine run up the wall and curl over on the other side, which they do by tying stones to the extremity of the tendril. May not this illustrate that beautiful image, 'Joseph is as a fruitful bough,' &c.? (Gen. xlix. 22). The vine, particularly in Turkey and Greece, is frequently made to entwine on trellises, around a well, where, in the heat of the day, whole families collect themselves and sit under the shade."

Paxton's interesting volume of Letters is not without its references to the vineyard, and the following extract abounds with striking illustrations of Bible texts:--"Rhamdoon is surrounded with vineyards. The vines are, for the most part, allowed to lie on the ground. In a few places peculiarly situated they are ' trained on supports, which raise them several feet above it. The grapes are of various kinds, most of them white and large. We are supplied with them most generously and munificently by the people. There are several houses that seem to be common property, where they express the juice of the grape. They have along one side of the house a row of large vats, into which the grapes are thrown; and, besides these, stone troughs, into which the iuice flows. Men get into the vats and tread the grapes with their feet. It is hard work, and their clothes are often stained with the grape. The figures found in Scripture, taken from this, are true to the life. 'I have trodden the wine-press alone. . . . I

will stain all My raiment; 'The wine-press was trodden without the city'" (Isa. lxiii. 3 and Rev. xiv. 20).

In another letter the same writer alludes to the great size of the grapes in some parts, particularly in Bru-manah, where they are often nearly as large as partridge's eggs. Infidels have frequently scoffed at the Scripture narrative which tells of the cluster of grapes which the two spies bore upon a staff, but a bunch of Bru-manah grapes, especially if a selected one, would be no light burden for one man through a country of rocks and hills. Sir Moses Montefiore obtained from a vineyard at Hebron a bunch of grapes about a yard in length; and even in this country, at Welbeck, the Duke of Portland's estate, a bunch of grapes—Syrian grapes, by the way—was produced, and sent as a present from that nobleman to the Marquis of Rockingham, the weight of the bunch being nineteen pounds! "It was conveyed to its destination-more than twenty miles distant—on a staff by four labourers, two of whom bore it in rotation; thus affording a striking illustration of the proceeding of 'the spies,' The greatest diameter of this cluster was nineteen inches and a half, its circumference four feet and a half, and its length nearly twenty-three inches." These facts show that the infidels' scoff is, after all, a little impertinent (Num. xiii. 20, 23, 24).

Rae Wilson speaks of "a kind of wild vine which grows near the highways and hedges of Judea, and has a small grape that is black when ripe." It is,

doubtless, the wild grape to which the prophet compares the inhabitants of Jerusalem and men of Judah; and perhaps, also, the grape to which another prophet refers when he predicts the approaching judgment on that rebellious people (Isa. v. 2, 4, and Jer. ii. 21). It is used for making verjuice.—Bib. Mon.; Murray's Morocco; Pax. Let.; M. Sec. Jour. through Persia; R. W.'s Travels, vol. i.

VINE OF SODOM.—Dr. Wilson, while travelling in the East, found a species of solanum or mad-apple, which he has identified as the vine of Sodom. describes it as a "shrubby plant, from about three to five feet in height, and bearing a round, yellowish berry, about an inch and a half in diameter." An Arab, who observed him handling the fruit of it. informed him that it was known by the name of Leimūn Lút. On his asking the man the reason of the name, he said that the plant formerly bore excellent limes, but for the wickedness of the people of the plain it was cursed by Lot, and doomed to bear the bitter fruit which it now yields. On learning further, that no other fruit passed by a similar name in the plain, he came to the conclusion that he had before him the noted species of the fruits-

> "Which grew Near that bituminous lake where Sodom stood."

It proved to be a species of the plant above named—the solanum or mad-apple. "I took," continues Dr. Wilson, "a couple of the berries with me to Britain.

On opening one of them in the spring of 1845, I extracted a dozen of the small black seeds, not unlike those of a potato, which it contained, and sent them to my friend, Alexander Thomson, Esq., of Banchory, who takes no common interest in all that pertains to the countries of the East, with the request that he would test their vegetative powers in one of his hothouses. Four thriving plants made their appearance as their product, and I had the pleasure, at the end of two subsequent autumns, of seeing them in full flower, and witnessing a drawing made of the plant. Hasselquist calls the berries 'mad-apples.' He observes :-- 'These I found in plenty about Jericho, in the vales of Jordan, not far from the Dead Sea. It is true they are sometimes filled with a dust; but this is not always the case, but only when the fruit is attacked by an insect (tenthredo) which turns all the inside into dust, leaving. the skin only, entire, and of a beautiful colour.' plant we were inclined, with Hasselquist, to consider the apple of Sodom. It is perhaps the vine of Sodom that is referred to in Scripture as an emblem of the enemies of the Lord's people. It is a curious fact that one of the names of a species of solanum allied to that to which I refer is, among the Arabs, that of 'grape of the wolf.' It is sometimes eaten by the poorer classes in Egypt."—Lands of the Bible.

The Fig.—This fruit is common throughout Palestine, as well as other countries of the East, at the present day. Mount Olivet was famous for its fig-

trees in ancient times, and they are still found there. "To sit under one's own vine and under one's own fig-tree" became a proverbial expression among the Jews to denote peace and prosperity (I Kings iv. 25; Mic. iv. 4, &c.). In the historical books of the Old Testament mention is made of cakes of figs, used as articles of food, and compressed into that form for the sake of keeping them. They also appear to have been used remedially for boils (2 Kings xx. 7 and Isa. xxxviii. 21).

There are three sorts of figs; the first makes its appearance about the vernal equinox and comes to maturity about the middle or latter end of June. This kind is called becorah, and is the same as that spoken of in Jer. xxiv. 2 as "the figs that are first ripe," Before this kind is ripe it is called, in Scripture, the green fig, but when ripe, the untimely (i.e., precocious) fig. It is deemed a great delicacy, and is generally considered to have a flavour superior to any other. Secondly, there is the summer or dry fig (called kermez), which appears about the middle of June, and is ripe in August. This is the sort which is preserved in masses or cakes and used as food. Lastly, there is the winter fig, which appears in August, and is not ripe till towards the end of November. Some of these figs will hang ripening on the tree long after the leaves are shed, indeed right through the winter, and in the early spring are gathered as delicious morsels. All figs fall when they are ripe; and this circumstance is alluded to in the

passage, "All thy strongholds shall be like fig trees with the first ripe figs: if they be shaken, they shall even fall into the mouth of the eater" (Nahum iii. 12).

—S. Dict., vol. i.; Illus. Com., vol. iv.

The POMEGRANATE. — The Palestine of the Old Testament is spoken of as "a land of pomegranates;" and the title would still hold good. Dr. Thomson, writing of his visit to Hebron, says:-"There are some pomegranate bushes in this neighbourhood, which may even be called trees by way of courtesy; but in reality these large and delicious 'apples' grow on a stout thorny bush. There are several kinds of them in this country. In Jebaah, on Lebanon, there is a variety perfectly black on the outside; the general colour, however, is a dull green, inclining to yellow; and some have even a blush of red spread over a part of The outside rind is thin but tough, their surface. and the bitter juice of it stains everything it touches with an undefined but indelible blue. The average size is about that of an orange, but some of those from Jaffa are as large as the egg of an ostrich. Within, the 'grains' are arranged in longitudinal compartments, as compactly as corn in the cob, and they closely resemble those of pale red corn, except that they are very transparent and very beautiful. A dish filled with these 'grains,' shelled out, is a very handsome ornament to the table, and the fruit is as sweet to the taste as it is pleasant to the eye. They are ripe about the middle of October, and remain in good : condition all the winter. Suspended in the pantry, they are kept, partially dried, through the whole year."

The pomegranate has a bell or tulip shaped flower of a bright orange-red, in some cases deepening into crimson; there is also a beautiful species which bears a double flower, but this is fruitless. That the tree was cultivated in Egypt in very early times we can have no doubt, for when the Israelites had left the land of bondage and were in the wilderness of Zin, we find them complaining that the place to which they had come was "no place of figs, or of vines, or of pomegranates;" from which we can only infer that in Egypt they were to be obtained in abundance. Indeed, the ancient Egyptian sculptures present us with drawings of the tree, and that places the question beyond all doubt. The Hebrew name for the pomegranate is rimmôn, and it is highly probable that the villages and towns of Rimmon, Gath-rimmon, and En-rimmon derive their names from promegranatetrees which grew in the vicinity (Num. xx. 5; Josh. xv. 32, xxi. 25; Neh. xi. 29).—Land and Book; and S. Dict., vol. ii.

The APPLE.—Almost all naturalists who have given their attention to the subject have considered that by the word rendered "apple" in the Authorised Version the citron is intended. A few have contended for the quince, but none seem to have had any thought that the apple is referred to. The apples in Palestine are

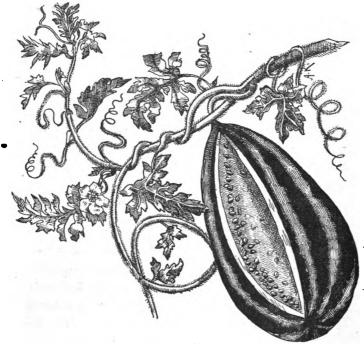
extremely rare, and of a very poor kind, while the citron grows plentifully, and answers to the description given in Scripture of the fruit in question. word fitly spoken," said Solomon, "is like apples of gold in pictures (baskets) of silver;" and as the citron is of a gold colour, we may conclude that this is the fruit which Solomon had before his mind. in almost all modern versions we have "citron" or "citron tree," instead of "apple" and "apple tree" respectively. In Cant. ii. 3 and 5 we have the following allusions to the tree:-"As the apple tree among the trees of the wood, so is my Beloved among the sons. I sat down under His shadow with great delight, and His fruit was sweet to my taste. . . . Comfort me with apples, for I am sick of love." From this we learn that the tree in question affords a pleasant shade, that its fruit is sweet, and, apparently, that it possesses certain fragrant qualities which would be useful for reviving persons who are sick or faint. Now, all this would be true of the citron. Dr. Kitto describes the fruit as delicious, asserts that the tree grows to a fine large size; and, further, that the fruit is carried about in the hand by Oriental ladies, in much the same way as a scent-bottle is carried by English ladies .- Illus. Com., vol. iii.; Scrip. N. H.

NUTS.—This fruit is not mentioned very frequently in the Word of God, and we need not devote much space to its consideration. Nuts and almonds were included in the present which Jacob sent to Egypt by

his sons; and the former have been identified as the fruit of the pistachio nut-tree, which grows plentifully in Palestine, and is much valued (Gen. xliii. 11). tree is stunted in appearance, with green, glossy leaves and dark brown bark; and the nut which it yields is small. Very different from this is the nut alluded to in the passage, "I went down into the garden of nuts" (Cant. vi. II); for here we have the walnut in all its magnificence of situation. The "beautiful walnut groves of Syria and Palestine are spoken of with admiration by travellers. In the district of Lebanon the walnuts fetch a large price, and the oil obtained from them is used in dressing woollen cloths and in making soap. The wood of the tree is smooth and prettily grained, and, being light and tough, is valued for gun-stocks, and as much as £40 has been given for a tree for this purpose."-Scrip. Herb.

The Melon.—Melons are mentioned in the list of things which the Israelites ate in Egypt and sighed after in the wilderness (Num. xi. 5); and Dr. Kitto affirms that the Cucurbita citrullus, or water-melon, is the fruit referred to. It is a native of the Levant and Egypt, and resembles the common pumpkin both in size and appearance. "The interior is a pulp of a blooming red, abounding with a copious irrigation of pellucid juice, and thus it becomes both meat and drink at the same time. A traveller in the East who recollects the intense gratitude which the gift of a slice of melon inspired while journeying over the hot and

dry plains—or one who remembers the consciousness of wealth and security which he derived from the possession of a melon while prepared for a day's journey over the same plains—he will readily comprehend the



WATER-MELON.

regret with which the Hebrews in the Arabian desert looked back upon the melons of Egypt. The fruit varies much in form and colour; it serves the Egyptians for meat, drink, and physic, and is eaten by them

in abundance during the season, which is from the beginning of May until the overflowing of the Nile, that is, from the end of July or the beginning of August. Within recent years it was the only medicine the common people used in ardent fevers, for which purpose they had a variety, softer and more juicy than the common sort; the juice of which, when the fruit was very ripe or almost putrid, was collected and mixed with rose-water and a little sugar."—Illus. Com., vol. i.; Uni. Herb., vol. i.

VEGETABLES.—Of the vegetables of the Bible—with the exception, perhaps, of the *gourd*—they are too well known to need description; and we shall therefore do little more than enumerate them. We may commence with the vegetable specified—the *gourd*.

The Gourd.—The "wild gourds" of 2 Kings iv. 39 differ altogether from the "gourd" of Jonah iv. 6, 7. The former may have been either the coloquintida or the globe-gourd, while the latter was probably the castor-oil-nut tree, which abounds near the Tigris, in the very neighbourhood where Jonah prophesied. The coloquintida, called in English "the little cucumber," is a trailing plant, which produces a dry gourd of a bitter taste, from which a valuable drug is obtained in the form of powder. The Arabs use it for making tinder. "After roasting the root in the ashes, they wrap it in a wetted rag of cotton-cloth; then they beat it between two stones, by which means the juice of the fruit is expressed, and absorbed by the rag, which is dyed by

it of a dirty blue; the rag is then dried in the sun, and ignites with the slightest spark of fire." The globe-gourd is quite as bitter as the above, smells disagreeably, and is covered with soft prickles. Mention is also made of a bottle-gourd, which is eaten, boiled with vinegar, by the Arabs, the shell being used as a water-vessel. With regard to the castor-oil tree, identified as Jonah's gourd, Dr. Kitto furnishes the following facts:—"The conclusion that this plant is to be identified with the gourd of Jonah is corroborated by local traditions, as well as by the fact that it abounds near the Tigris, where it is not an annual, and grows to a size much more considerable than it is commonly supposed to attain."—B. Syria, &c.; Illus. Com., vol. iv.

In one passage of the Word alone, namely, Num. xi. 5, we have mention of four more vegetables. "We remember," sighed the Israelites, who had grown weary of angels' food, "we remember . . . the cucumbers, . . . and the leeks, and the onions, and the garlick," vegetables of which they had partaken freely in Egypt, a fact which shows that these savoury esculents were known among the early Egyptians. On the monuments we constantly find vegetables presented to the gods, especially leeks and onions, which were tied up in fanciful shapes. In the annals of Rameses III., among the gifts of this king to his gods are, "onions, 180 ropes, 50 loads, 50 sacks, with two other measures unknown—one is 77 and the other 2." Enough, surely, of this savoury esculent! Herodotus, in his

description of the pyramid of Cheops, observes:—"On the pyramid is shown an inscription, in Egyptian characters, how much was expended in radishes, onions, and garlic for the workmen, which the interpreter, as I well remember, reading the inscription, told me amounted to one thousand six hundred talents of silver."—Egypt, &c.; and Herod. ii. 125.

Beans.—Beans are mentioned in Ezek. iv. 9, of which it will suffice to say, that "the kinds most common in Syria are the white horse-bean and the kidney-bean. The paintings of Egypt show that the bean was cultivated in that country in very ancient times;" though a statement of Herodotus would seem to contradict this. "Beans," says this writer, "the Egyptians do not sow at all in their country; neither do they eat those that happen to grow there, nor taste them when dressed. The priests, indeed, abhor the sight of that pulse, accounting it impure."—Illus. Com., vol. iv.; Herod. ii. 37.

AGRICULTURE.

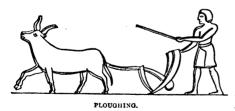
In treating of this important section of our chapter, much compression will be necessary. The first object that we have selected for mention is the *plough*.

The Plough.—"There is not a more important duty belonging to the cultivation of the soil than ploughing, and there is not a more ancient or more interesting implement than the plough." The ploughman seems to lead a quiet and easy life, as—

"Unassisted through each toilsome day, With smiling brow he cleaves his even way; Draws his fresh parallels, and, widening still, Treads slow the heavy dale, or climbs the hill;"

Patient toil and long practice are but it is not so. alike needed before a man can become a good hand at the plough; for even the knack of holding the implement and of guiding the horses is only to be acquired by long experience. But humble though the occupation is, One who is higher than the highest refuses not His blessing and guidance to the ploughman. "Doth the plowman plow all day to sow?" asks the prophet: "doth he open and break the clods of his ground? When he hath made plain the face thereof, doth he not cast abroad the fitches, and scatter the cummin, and cast in the principal wheat, and the appointed barley, and the rye, in their place? For his God doth instruct him to discretion, and doth teach him" (Isa. xxviii. 24-26).

The tillage of the soil is the most ancient occupation of man on record, for it carries us back almost to the Creation. We read in Gen. ii. 15: "And the Lord



God took the man, and put him into the Garden of Eden to dress and to keep it;" but then it must

have been a light and happy task, for sin had not entered, and there was no curse upon the ground as yet.

After the fall, the work of dressing and keeping the ground involved more arduous labour, for thorns and thistles sprang up to impede the husbandman, and the Divine law was enunciated, "In the sweat of thy face thou shalt eat bread till thou return unto the ground" (Gen. iii. 19). The wisdom of this sentence cannot be overrated. There was mercy in it. In innocence man might be idle without danger, but God knew that when sin had once entered, a state of idleness would only be productive of further sins. An old writer, indeed, has well said: "The true handmaid of Virtue is Labour, and the foe to them both is Idlenesse. Therefore to thee whom Virtue hath taught to thrive, and honest labour made capable of honest profit, embrace diligence, and with a thousand eyes watch. lest that ougley monster, sloth, distill the juice of his hemlocke into thy braine, blasting the happy fruit of thy better labour."

"The use of the plough was known at a very early time in the history of mankind; but it was a much simpler instrument than ours. At first it was little more than a stout branch of a tree, from which projected another limb, shortened and pointed; this being turned into the ground, made the furrows, while at the farther end of the larger branch was fastened a transverse yoke, to which the oxen were harnessed. Afterwards a handle to guide the plough was added. The Syrian plough was light enough for a man to carry with one hand. It was drawn by oxen, which were sometimes urged by a scourge, but oftener by a long

staff with a flat piece of metal at one end, for cleaning the plough, while at the other end was a spike for goading the oxen. This ox-goad was sometimes used as a spear (Judges iii. 21; I Sam. xiii. 21). time men followed the plough with hoes to break the clods (Isa. xxviii. 24), but in later times a kind of hammer was employed for the same purpose." often," says Mr. Hackett, "saw the peasants breaking up the soil, and always with a plough having but one handle. The fashion of it recalled to my mind the manner in which the Saviour has expressed Himself in reference to the inconstant, faithless disciple: "No man, having put his hand to the plough, and looking back, is fit for the kingdom of God" (Luke ix. 62). It was interesting to mark this instance of exact conformity to Oriental habits. Had the plough in that country been made as ours is made, the language would have been, "No man, having put his hands to the plough, and looking back, is fit for the kingdom of God."

Referring to the command in Deut. xxii. IO, "Thou shalt not plough with an ox and an ass together," another traveller writes:—"We had never seen an instance of this, and it seemed so natural that we could hardly conceive that the perverse mind of man would be moved with a wish to yoke up these animals together to carry on his agricultural operations. But in our ride through Malta we saw, perhaps in twenty instances, an ox and an ass yoked together before the plough."—Sk. of Rur. Af.; Illus. of Scrip.; and Glim. of the O. W.

Sowing.—The furrows being ready for the seed, the ploughman makes way for the sower. It is man's business to sow the seed; it is God's prerogative to give the increase: "In the morning sow thy seed, and in the evening withhold not thine hand: for thou knowest not whether shall prosper, either this or that" (Eccles, xi. 6). The process of sowing was used to illustrate one of the most familiar discourses of our Lord (Matt. xiii. 3; Mark iv. 3; Luke viii. 5). Dr. Thomson and Dean Stanley have both made beautiful allusions to this parable in their descriptions of the seed-sowing in Palestine. The former writes:--"If the latter part of March and the first half of April be rainy, the wheat, and especially the barley, sown now and even weeks later may yield a better harvest than what has been in the ground for the last month. In such seasons the early crop grows so rank as to lodge, when it is entirely spoiled. If the spring, however, should be early and dry, the late sown will fail altogether. We may now gather a harvest of our own peculiar kind from the operation going on under the eye. The parable about sowing has here its illustration, even in

its most minute details. 'Behold a sower went forth to sow.' There is a nice and close adherence to actual life in this form of



expression. These people have actually come forth all

the way from Jume (near Sidon) to this place. The expression implies that the sower, in the days of our Saviour, lived in a hamlet or village, as all these farmers now do: that he did not sow near his own house, or in a garden fenced or walled, for such a field does not furnish all the basis of the parable. There are neither roads, nor thorns, nor stony places in such lots. He must go forth into the open country, as these have done, where there are no fences, where the path passes through the cultivated land, where thorns grow in clumps all around, where the rocks peep out in places through the scanty soil, and where also, hard by, are patches extremely fertile. here we have the whole four within a dozen rods of us. Our horses are actually trampling down some seeds which have fallen by the wayside, and larks and sparrows are busy picking them up. That man with his mattock is digging about places where the rock is too near the surface for the plough; and much that is sown there will wither away, because it has no deepness of earth. And not a few seeds have fallen among this bellan, and will be effectually choked by this most tangled of thorn bushes. But a large portion, after all, falls into really good ground, and four months hence will exhibit every variety of crop, up to the richest and heaviest that ever rejoices the heart even of an American farmer. Certainly nothing could be more to the point than this illustration. We. doubtless, are looking upon the very facts which suggested to Him who taught in parables the instructive lesson of the sower."

Dean Stanley's remarks upon this parable are not less striking and important. He writes :- "A slight recess in the hillside, close upon the plain (Gennesareth), disclosed at once, in detail, and with a conjunction which I remember nowhere else in Palestine, every feature of the great parable. There was the undulating corn-field descending to the water's edge. There was the trodden pathway running through the midst of it, with no fence or hedge to prevent the seed from falling here and there on either side of it, or upon it; itself hard with the constant tramp of horse and mule and human feet. There was the 'good,' rich soil, which distinguishes the whole of that plain and its neighbourhood from the bare hills elsewhere, descending into the lake, and which, where there is no interruption, produces one vast mass of corn. was the rocky ground of the hillside protruding here and there through the corn-fields, as elsewhere through the grassy slopes. There were the large bushes of thorn—the 'nabk,' that kind of which tradition says that the crown of thorns was woven-springing up, like the fruit-trees of the more inland parts, in the very midst of the waving wheat."

The writings of another modern traveller afford us a striking illustration of another kind of sowing, that referred to in Matt. xiii. 25: "While men slept, his enemy came and sowed tares among the wheat, and went his way." "Strange as it may appear," says

Mr. Roberts, "this is still literally done in the East. See that lurking villain, watching for the time when his neighbour shall plough his field; he carefully marks the period when the work has been finished, and goes the night following and casts in what the natives call pandinellu, that is, pig-paddy; this being of rapid growth, springs up before the good seed, and scatters itself before the other can be reaped, so that the poor owner of the field will be for years before he can get rid of the troublesome weed. But there is another noisome plant which these wretches cast into the ground of those they hate, called perum-pirandi, which is more destructive to vegetation than any other plant. Has a man purchased a field out of the hands of another? The offended says, 'I will plant the perum-pirandi in his grounds." The columns of an old newspaper supply a further illustration of the same Scripture:-"The country of 'Ill Will' is the by-name of a district hard by St. Arnaud, in the north of France. There, 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 straggling 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."

That law in the government of God, "Whatsoever a man soweth, that he shall also reap" (Gal. vi. 7),

is strikingly illustrated by the following anecdote, a translation from the Hindustani:-- "One day the master of Lukman (an Eastern fabulist) said to him, 'Go into such a field and sow barley.' Lukman sowed oats instead. At the time of harvest his master went to the place, and seeing the green oats springing up, asked him, 'Did I not tell you to sow barley here? Why, then, have you sown oats?' He answered, 'I sowed oats in the hope that barley would grow up.' His master said, 'What foolish idea is this? Have you ever heard of the like?' Lukman replied, 'You yourself are constantly sowing in the field of the world the seeds of evil, and you expect to reap in the resurrection day the fruits of virtue! Therefore I thought, also, I might get barley by sowing oats.' The master was abashed at the reply, and set Lukman free" (Land and Book; S. and P.; O. Illus.; Bib. Treas., vol. iii.).

REAPING.—The earliest mode of reaping, and one which is still practised in the East, is that of cutting off the ears near the top, the straw being left standing. This is evidently the process referred to in Job xxiv. 24, where the expression occurs, "cut off as the tops of the ears of corn." But harvests must have been gathered long before there were any instruments for cutting the corn, and we may reasonably conclude that the hand and not the sickle was first used. The primitive husbandmen doubtless pulled up the corn by the roots, a process which was certainly known to the

Jews, and, indeed, which was kept up after the sickle had been introduced.

Dr. Thomson, writing on the passage in Genesis where Isaac is spoken of as reaping a hundredfold on that which he had sowed (xxvi. 12), speaks of the surprise he felt when he heard it stoutly maintained by certain gentlemen on the fertile plain of Esdraelon, that they also had reaped a hundredfold from part of that plain. He could not understand it until, by accident, it came out that they had a peculiar mode of calculation. "In sowing they allow one-third of the seed for the birds, particularly the crows, which settle down upon the fields in countless flocks. Another third is supposed to be destroyed by mice and insects, and only one-third of the seed sown actually comes to maturity. Thus a man sows three bushels, and if he reap a hundred it is a hundredfold, according to his mode of calculation, but according to ours it would be only thirty-three. This latter rate is nearly the lowest mentioned in the parable as the yield of what our Lord calls 'good ground,' and that it is really a firstrate crop for even such plains as Esdraelon, which, being directly below Nazareth, must have been perfectly familiar to Him; and as cultivation was, no doubt, far more careful and skilful than it is now among the stupid fellahîn, it is not at all improbable that the numbers used are in strict accordance with actual experience. Indeed, He could not have erred in this matter. We may suppose, however, that the different rates of yield had reference to various kinds

of grain. Barley and wheat are sown side by side in the same field, but the former gives a much heavier crop than the latter. There is a kind of durrah—white maize—sown in this same region, which often returns several hundredfold. I have been assured by respectable farmers that they have gathered more than four hundredfold of this corn."

The same traveller speaks of the delight with which he watched the reapers at work in the barley-fields on the plains of Bethlehem, and adds how that pleasure was augmented when he saw the gleaners, composed of women and children, following in their wake. Often,



REAPING.

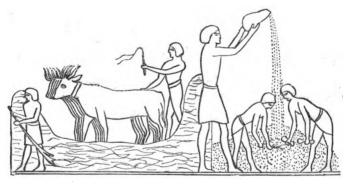
too, it was his lot to watch, in the still evenings, some poor woman or maiden, who had been permitted to glean on her own account, sitting by the roadside and beating out with a stick or a stone what she had gathered, just as we read of Ruth doing in Ruth ii. 17. We should have to quote the whole of this chapter in order to show the reader how marvellously

perfect is the delineation of natural scenery, as well as of the Oriental customs, with which its verses deal. Here, in the present day, are the maidens following the reapers in the barley-fields of Bethlehem, just as the maidens followed the reapers of Boaz in the barleyfields of Bethlehem in the days when the Judges ruled. Here—but let the traveller himself furnish the parallels, and the reader, with his Bible open at the second chapter of Ruth, may note the admirable perfection of even the smallest details in God's Holy Word:--"The salutations that passed between the proprietor (Boaz) and the labourers (verse 4) are no exaggeration of modern politeness: 'The Lord be with you' (of Boaz), is merely the 'Allah m'akum' of ordinary parlance; and so, too, the response, 'The Lord bless thee' (of the reapers). Again, it is implied that there was a considerable number of reapers, and that the reaping season was prolonged for a considerable time; for it is added, in verse 23, that Ruth continued until the end of barley harvest, and of wheat harvest, which are quite distinct, occur in the order here stated, and are protracted through several weeks. It is further intimated that the reapers were apt to be rude in their deportment toward defenceless females, and hence the command of Boaz in the 9th verse. Such precautions are not out of place at this day. The reapers are gathered from all parts of the country, and largely from the ruder class, and, living far from home, throw off all restraint and give free licence to their tongues, if nothing more. The meals, too, are quite in keeping—the dipping her morsel in the vinegar, and the parched corn" (verse 14).

The merciful provision made in the Levitical law for the poor is strikingly shown in two distinct commands respecting the harvest. The first is in Leviticus xix. 9: "When ye reap the harvest of your land, thou shalt not wholly reap the corners of thy field, neither shalt thou gather the gleanings of thy harvest." The second is in Deut. xxiv. 19: "When thou cuttest down thine harvest in thy field, and hast forgot a sheaf in the field, thou shalt not go again to fetch it: it shall be for the stranger, for the fatherless, and for the widow: that the Lord thy God may bless thee in all the work of thy hands." There are equally liberal regulations respecting vineyards and oliveyards (Illus. Com., vol. iii.; and Land and Book).

Threshing. — The reaping over, the process of threshing begins. Isaiah xxviii. 27, 28 contains allusions to all the different processes of Oriental threshing, and we will now look at them in detail. In verse 27 the first allusion is to the threshing instrument, or corn-drag, which consisted of a frame of strong planks, made rough at the bottom by iron or hard stones, the frame being dragged over the corn by oxen or horses, the driver sitting upon it. Later on in the same verse we have the "cart," which appears to have been a similar machine, but furnished with an axle and wheels. Solomon, doubtless, had such an instrument in mind when he wrote, "A wise king scattereth

(sifteth) the wicked, and bringeth the wheel over them" (Prov. xx. 26). These wheeled engines seem to have been sometimes furnished with iron teeth, or perhaps serrated wheels; and not only did they force out the grain, but cut up the straw as fodder for the cattle. Next we come to rods and flails, referred to in the passage, "The fitches (fennel-flower) are beaten out with a staff, and the cummin with a rod" (verse 27). These implements, which call for no description, appear



THRESHING AND WINNOWING.

to have been used for separating the more delicate and easily detached kinds of grain. Lastly (in the 28th verse), we have an evident allusion to a process of threshing still adopted in many parts of the world, namely, that of "treading out the corn." This process, in which the simple treading of cattle is made to do all the service of a machine, is of very ancient origin, and is alluded to in the familiar injunction of Moses, "Thou shalt not muzzle the ox when he treadeth out

the corn" (Deut. xxv. 4). This simple precept of human consideration is generally acted upon in the East at the present day; and Dr. Kitto states that he never saw or heard of any instance in which an animal employed in threshing was muzzled or otherwise prevented from tasting the grain or straw. Champollion has translated for us, from the hieroglyphics on an ancient tomb, a song which the Egyptians of past days used to sing while their oxen were treading out the corn. We transcribe it for the reader:—

"Thresh for yourselves,
Thresh for yourselves,
O oxen;
Thresh for yourselves,
Thresh for yourselves,
Measures for yourselves,
Measures for your masters."
—Illus. Com., vols. i. and iv.; and Egypt, &c.

Winnowing.—The threshing over, the process of winnowing begins. We can picture to ourselves the corn lying crushed and trodden on the open threshing-floor; and the cattle, having done their work, are being taken away. The corn is now gathered into a heap in the middle of the threshing-floor, and, ere long, many hands are busy at the winnowing. The corn is tossed into the wind, which removes the broken straw and chaff, while the grain and the clods of earth and the unthreshed ears fall in a separate heap. The earth and other impurities are then removed from the grain by means of a sieve; and the winnowed heap, containing many ears that have been broken

but not fully crushed out, are exposed again to the threshing operation. This is again thrown across the wind by a shovel (rendered fan in Isa. xxx. 24, A. V.), when the pure grain falls to the ground and the light chaff is borne away by the wind. "The ungodly," says the Psalmist, "are like the chaff which the wind driveth away:" and what truer symbol could we have of the destruction of the wicked than this? the Book of Ruth (iii. 1, 2) Naomi says of Boaz, "Behold, he winnoweth barley to-night in the threshing-floor;" and we might be tempted to ask,. "Is not the night a strange time for such work?" answer is simple, and shows us again the beautiful accuracy of Scripture even in the smallest details. "In those parts of the East," writes Dr. Kitto, "where the heat of the sun is by day very powerful and oppressive, much agricultural labour of various kinds is performed on bright nights, for many hours after the sun has set, or before it rises." In the evening, too, the wind usually rises, and the process of winnowing can be conducted at that time with more advantage.—Illus. Com., vol. iii.

Garnering the Grain.—The process of winnowing over and the grain gathered into bags, the farmer's next thought is about the storing of the grain. "The ancients used to preserve their wheat for many years in storehouses especially built for its reception, and in all ages of the world such places have been constructed of different materials, according to the faci-

lities of the spot in which they were required. in the time of Joseph wheat was stored in Egypt for seven years (Gen. xli. 36), and was doubtless preserved for so long a time without difficulty in that dry and warm climate. The granaries of the ancients were sometimes mere pits dug out in the ground; at other times barns or storehouses were built for the purpose. 'I will pull down my barns and build greater, and there will I bestow my fruits and my goods,' was the exclamation of the rich man described by our Lord, whose ground 'brought forth plentifully' (Luke xii. 18). Among the Romans the necessity of preserving grain was so strongly felt, that they took the greatest pains in constructing their granaries, and are said to have kept wheat in them for fifty or even for a hundred years." The treasure cities which Pharaoh made the children of Israel erect for him (Exod. i. 11) "were probably cities mainly devoted to the storing of grain, &c.; as we read that Hezekiah made storehouses for the increase of corn, and wine, and oil" (2 Chron. xxxii. 28).—Sk. of Rur. Af.; and Equpt, &c.

IRRIGATION.—Though Egypt is, without doubt, a more fertile country than Canaan, its fertility is entirely due to the annual inundation of the Nile, which is made available for irrigation in the fullest extent only by means of its numerous canals and trenches, which require every year to be cleaned out and the dykes carefully repaired. Canaan, on the other hand, is

watered without human labour, by the rain of heaven, and thus it may be said to have its advantages. land whither thou goest in to possess it," said Moses to the children of Israel, "is not as the land of Egypt, from whence ye came out, where thou sowedst thy seed, and wateredst it with thy foot, as a garden of herbs: but the land whither ye go to possess it, is a land of hills and valleys, and drinketh water of the rain of heaven" (Deut. xi. 10, 11). Dr. Kitto thinks that the word rendered "foot" in this place is used metaphorically to denote "labour," but he adds that the word may be also taken literally. Engines of various kinds for raising water are placed all along the Nile. from the sea to the cataracts, and Philo describes one of these machines as being worked by the feet. Others take the expression even more literally, and illustrate the custom by the usages in the South African gardens and corn-fields at the present day. "Various kinds of beans, peas, melons, potatoes, cabbages, and other vegetables are planted in rows or drills, so that in the event of the season proving dry, the husbandman, who has a stream at his command, conducts it from drill to drill, stopping its course by turning the earth against it with his foot, and at the same time opening with his spade or hoe a new trench to receive it. This mode of watering, by conveying a little stream to the roots of the plants, is very generally practised."

Another writer, speaking of the gardens about Jaffa, observes:—" In each of these gardens there is a well from which the ground is irrigated by rivulets, which

are so ingeniously contrived, that a sufficient quantity of water flows round each tree and shrub to keep it in health and vigour. There is no doubt that the Psalmist alludes to such trees in his description of the servants of God (Ps. i). The words 'rivers of water' are, according to the original, divisions of water." Dr. Shaw observed the same system of irrigation at Gabs; Lord Lindsay at Roda; Ovalle at Tayf and Koba in Arabia; Hartley at Smyrna; and Perkins in Persia. The lastnamed writer adds this further information in connection with the Persian mode of watering the land:-"The openings from the main canals are readily closed when sufficient water is taken out of a given field, and the stream then passes on to cheer and fertilise the thirsty soil of the next neighbour. The ease with which the gardener changes these streams, by opening or closing a channel with his spade or even with his foot, vividly illustrates the Scripture allusion to divine sovereignty. 'The king's heart is in the hand of the Lord, as the rivers (rivulets) of water; He turneth it whithersoever He will' (Prov. xxi. I). If the fields are not level, they must be divided and worked by a spade or plough into level sections, each enclosed within a ridge a few inches high; and these divisions are successively watered."

In the Book of Jeremiah it is foretold of the Jews, that their souls shall be like "a watered garden" (xxxi. 12); a happy condition of things which is still future. The millennium is still in prospect; but what a day will that be, when the sceptre of the Son of Man

is extended over a renewed and happy earth! The moment is approaching. The despised and outcast nation will soon be gathered back in blessing to their land; and then, indeed, will that promise concerning them be fulfilled: "The Lord shall guide thee continually, and satisfy thy soul in drought, and make fat thy bones: and thou shalt be like a watered garden, and like a spring of water, whose waters fail not."—Isa. lviii. II; Illus. Com., vol. I; Jour. in S. Af.; Mis. L. in Jerus.; Tr. in B. and L.; Let. on E. and H. L., vol. i.; Res. in G. and L.; Res. in Pers.

CHAPTER V.

PASTURES AND WILDERNESSES.

The Shepherd—Flocks and Herds—Shepherd's Staff and Sling—Shepherd's Goad—Sheepfolds and Shepherd Habitations—The Desert and the Wilderness,

SHEPHERD.—Agricultural and pastoral avocations are sometimes combined in the East. We get an instance of this in the history of Isaac, who, although strictly speaking a shepherd and accustomed to a nomadic life, is described in Gen. xxvi. 12 as taking up with agricultural pursuits. The record is, "Then Isaac sowed in that land, and received in the same year an hundredfold." The Eelauts or pastoral tribes of Persia act in a similar way. "There are some that live in their tents all the year, and others that build huts for the winter, which they abandon in summer, and often return to them in winter. They then begin to grow corn in the vicinity, and leave a few old persons to look after it. As the cultivation increases, a greater number of persons stay at the huts in the summer also, until at last nearly all the tribe remains to attend to the cultivation, only sending out a few with the flocks. Thus the wandering tribes

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gradually change from a pastoral to an agricultural people."

As a rule, however, pastoral and agricultural pursuits are not combined, the modes of life being so very different, as well as the qualifications needed in the persons who would take up with both. Indeed, in many countries, an almost incessant warfare is carried on between the cultivators of the soil and the restless, wandering shepherds, owing to the incursions of the latter, who seem to be as big thieves in the present day as they were in the days of the Judges (Jud. vi. They "come up from their deserts in the spring, and perhaps remain through the summer in the territories of those cultivators who are so unfortunate as to lie at their mercy. If there is not an established understanding between the nomads and the cultivators as to the proportion which the latter are to pay for exemption, the Bedouins encamp and pasture their cattle in the cultivated grounds, after securing such corn and other vegetable products as they may happen to require for their own use during the remainder of the year." Owing to these depredations, whole families are continually moving from village to village in the hope (usually a vain one) of reaching some spot where the incursions of these robbers are unknown; and hence it is that but few individuals die in their native village. "This continued wandering," says Burckhardt, "is one of the principal reasons why no village in the Haouran has either orchards or fruit-trees, or gardens for the growth of vegetables. 'Shall we sow for

strangers!' was the answer of a Fellah to whom I spoke on the subject, and who by the word 'strangers' meant the succeeding inhabitants and the Arabs who visit the Haouran in the spring and summer." The Sabeans and Chaldeans who fell upon the cattle and camels of Job, and the Midianites and "children of the East" who spoiled the Israelites in the days of Gideon, were doubtless very similar to the Eelauts and Bedouin Arabs of the present day (Jud. vi. and Job i.). It was foretold of Ishmael, "He will be a wild man; his hand will be against every man, and every man's hand against him, and he shall dwell in the presence of all his brethren" (Gen. xvi. 12); and truly the word "The descendants of Ishmael conhas come to pass. tinue to this day to live in hostility to the greater part of mankind. On the margin of the Red Sea and Arabian Gulf commerce has exerted some influence: but the Eastern Arabs, or Nabatheans, are almost entirely freebooters, living by plunder. Although spread over a country thirteen hundred miles long and twelve hundred miles broad, they are comparatively secure; while those who are sometimes hardy enough to follow them either die with thirst, or are compelled to return overcome with fatigue and sick-Their water is obtained from wells sunk amid ness. the rocks and plains which they inhabit, and known only to themselves. Notwithstanding the opposition they have met with from the ancient Assyrians, the Medes, the Persians, and the Macedonians, they have, from first to last, maintained their independence. No

conqueror has subdued them; and they still, as a memento of Scripture prophecy, dwell in the presence of all their brethren."

The home of the Bedouin Arabs "is the wide desert, and they have no local attachments. They seldom remain above one month in one spot, but wander about the deserts from well to well. When their flocks have eaten up what little verdure there is in one place, they strike their tents and set out for another." Abraham himself, the first of the patriarchs, was a Bedouin; and four thousand years have not made the slightest alteration in the character, appearance, and habits of this extraordinary people. Read of the patriarchs in the Bible, and it is the best description you can have of pastoral life in the East at the present day (Gen. xiii., the whole chapter).

The ancient Egyptians seem to have had no kindly feeling towards them; indeed, we are told in Genesis xlvi. 34 that "every shepherd is an abomination unto the Egyptians." Dr. Kitto does not think, however, that this aversion was so exclusively to rearers of cattle as such, as to that wild, wandering, lawless class of pastors, whose plundering habits were so contrary to their own settled and refined tastes. "The nomad tribes, who pastured their flocks on the borders or within the limits of Egypt, did not in general belong to the Egyptian nation, but were of Arabian or Libyan descent; whence the prejudice against them as nomads was superadded to that against foreigners in general. The turbulent and

aggressive disposition which usually forms part of the character of nomads, and their entire independenceor, at least, the imperfect and uncertain control which it is possible to exercise over their tribes—are circumstances so replete with annoyance and danger to a carefully organised society like that of the Egyptians, as sufficiently to account for the hatred and scorn which the ruling priestly caste strove to keep up against them." Moreover, at one period of Egyptian history the country had been actually overrun by a tribe or tribes of these wandering freebooters, who had placed a king of their own choosing on the throne at Memphis, and thus rendered themselves still more obnoxious. This was the beginning of the dynasty or dynasties of the Shepherd Kings. "As far as is known, they did not reign over the whole of Egypt, and were on terms of friendship with the rulers of other parts of Egypt, at least for a time. Still their religion was different, and they ruled eventually with rigour which made the Egyptians smart under what they considered foreign usurpation." Eventually, however, they were driven out, and the first of a new line of kings ascended the throne.—Illus. Com., vols. i. and ii.; B. Syria, &c.; Bib. Treas., vol. i.; Mad. Trav.; Incid. of Trav.; Egypt, &c.

FLOCKS AND HERDS.—The riches of the Bedouin Arabs consist almost entirely in their flocks and herds; and the same might also be said of the patriarchs of old. Job had seven thousand sheep, and three

thousand camels, and five hundred yoke of oxen, and five hundred she-asses (Job i. 3); Abraham was "very rich in cattle" (Gen. xiii. 2); Lot had flocks, and herds, and tents (Gen. xiii. 3); and the wealth of Isaac in these things was so great as to tempt the cupidity of the Philistines (Gen. xvi. 14). "Mesha, king of Moab, was a sheepmaster, and rendered unto the king of Israel an hundred thousand lambs, and an hundred thousand rams, with the wool (2 Kings iii. 4).

It is no infrequent thing for an Eastern shepherd to know the names of all his sheep. A traveller, anxious to prove this fact, and happening to meet three shepherds on one occasion, desired them to mix their flocks, which they did. Of these flocks, one contained 650, another about 700, and the third about 750 sheep -in all, some 2100. The test was applied, and the result exceeded all expectation. "Each sheep had a separate name; it would not answer to any other name, nor even to its own unless called by its own shepherd. Each shepherd knew all his sheep, and also their names. If he saw that one was going in a dangerous direction, he called it, and it retraced its steps. If the way was narrow or steep, he walked first, and the sheep followed." What a striking picture is this of the Great Shepherd and His dealings with His flock! "The sheep hear his voice; and he calleth his own sheep by name, and leadeth them out. And when he putteth forth his own sheep, he goeth before them, and the sheep follow him: for they know his voice. And a stranger will they not follow, but will flee from him: for they know not the voice of strangers" (John x. 3, 4, and 5). It was cold weather when the incident above referred to took place; and



SYRIAN SHEEP.

the writer adds that the shepherds looked well after the young lambs, many of which were weak and delicate, and would take up one and another from time to time, and place the little trembling things in their bosoms. Beautiful, pathetic picture! but how much more pathetic when we remember that the prophet has drawn another and not dissimilar picture, in which Jehovah Himself is the Shepherd! "He shall feed his flock like a shepherd; he shall gather the lambs with his arms, and carry them in his bosom" (Isa. xl. 11). Among the 2100 sheep which this traveller saw, some were weak and fatigued, and unable to walk much, especially in steep or miry places. These the shepherds approached, and placing their crook gently beneath them, helped them along. We need scarcely add that these men were not the wild Bedouin Arabs of whom we have spoken somewhat earlier; they were Grecian shepherds.

It may not be known to all that the expression, "I will cause you to pass under the rod" (Ezek. xx. 37), contains a pastoral allusion. A passage from the closing chapter of Leviticus will explain it: "And concerning the tithe of the herd, or of the flock, even of whatsoever passeth under the rod, the tenth shall be holy unto the Lord" (ver. 32). The lambs were separated from the dams, and enclosed in a sheepcote, with only one narrow way out; the dams were at the entrance. On opening the gate, the lambs hastened to join the dams; and a man placed at the entrance, with a rod dipped in ochre, touched every tenth lamb, and so marked it with his rod, saying, "Let this be holy." Hence the expression.

Speaking of this separation of every tenth lamb from the rest, we are reminded of the separation of the

sheep from the goats in the well-known parable of our Lord (Matt. xxv. 33). An Eastern traveller derived a very striking illustration of this parable from a scene which he witnessed more than once during his journeyings. He noticed flocks of sheep and goats feeding together in the same field, or on the same common; and as the goats were of an extremely fine breed, and the sheep had long, coarse, hairy wool, he could scarcely tell, at a first glance, which were goats and which were sheep. The words of the Saviour, "He shall set the sheep on his right hand, but the goats on the left" (Matt. xxv. 33), came home to him with peculiar force when the flocks returned at evening, and the shepherd, separating them into two parts, put the sheep by themselves and the goats by themselves. The Rev. H. Malcolm noticed a similar fact in connection with certain flocks in Burmah, Pegu, and elsewhere. So entirely do sheep lose their distinctive features in these hot climates that, in seeing them mixed with goats, you could never tell them apart. They are never white, as with us, and their wool degenerates into hair; but though the resemblance is so close as to deceive an unaccustomed eye, the shepherd knows each perfectly.

The coarseness of the wool in Eastern sheep, above alluded to, necessarily lowers the value of the animal; and, indeed, if it were not for the *milk* obtained from his flocks, an Eastern sheepmaster would find but small pleasure in rearing them. "The lambs are only suffered to go to their dams at particular times to

obtain nourishment, after the people have secured the larger share of the milk for themselves. The milk of their flocks is a more important consideration with an Oriental than the wool or the flesh. It is regarded as quite superior in quality to the milk of cows, especially for their favourite sour curd." The apostle was doubtless perfectly familiar with this fact when he wrote, "Who feedeth the flock, and eateth not of the milk of the flock?" (I Cor.ix.7).—Glim. of the O.W.; Grant's Nest.; Tr. in S.E. Asia; Illus. Com., vol. i.; Bib. Treas., vol. ii.

SHEPHERD'S STAFF AND SLING .- The shepherd lad, David, when he went forth to meet the Philistine, took with him a staff and sling (I Sam. xvii. 40); and though the use of the latter has apparently been discontinued among Eastern shepherds, the former is still carried by them. "Most Orientals carry with them a stick or a staff, not only as a support, but as a defence; and some carry a spare one in case of accident; but this the disciples were commanded not to take (Matt. x. 10). Zechariah has two staves (xi. 10, 14). 'With my staff I passed over this Jordan,' said Jacob (Gen. xxxii. 10); 'Thy rod and thy staff comfort me,' said David (Ps. xxiii. 4); both of which passages refer figuratively to the Divine support they received." That the sling was also much used in the past we can safely affirm, for Xenophon relates that the Persians were expert with it; and the monuments show that the ancient Egyptians were perfectly familiar with its use. - Wanderings, vol. i.

SHEPHERD'S GOAD.—This is another of the instruments in use among Eastern shepherds and herdsmen. "A gentleman travelling in the East observed a large herd of cattle, attended by more than twenty drivers, each furnished with a stick five or six feet long, with an iron point or nail fastened to the smaller end. is still the custom for the chief herdsman to fix the points into the ends of the goads, and repair such as may have become blunt through use. For this purpose he is supplied with a few simple tools; care is taken that the instrument shall be so formed as not to injure the cattle." To these goads the words of the wise are compared in Eccles. xii. II: "The words of the wise are as goads, and as nails fastened by the master of assemblies, which are given from one shepherd." Though the words may have force to arouse. they have no bitterness to wound.—Bib. Treas., vol i.

SHEEPFOLDS AND SHEPHERD HABITATIONS.—The habitations of Eastern shepherds, and the enclosures for the flocks, are of various kinds. In modern Greece the former live in huts built of rushes; in Persia, sometimes in huts and sometimes in caverns. In the latter country the sheep are secured at night sometimes by driving them into the caverns, the mouths of which are blocked by loose stones, and sometimes by enclosing them in a sort of building constructed of stone and hurdles, or fenced with reeds. Sheepfolds of this description are provided with a large door or entrance for admitting the flock, which is closed with

hurdles. Thieves will sometimes climb over the walls and steal the sheep; a fact which illustrates in a striking manner the Saviour's words: "He that entereth not by the door into the sheepfold, but climbeth up some other way, the same is a thief and robber" (John x. I).

The nomad shepherds, who have no permanent sheepfolds of this kind, and who may be travelling across flat country where caverns are unknown, sometimes have recourse to another expedient for the protection of their flocks by night. The practice in question is alluded to in the words, "I, saith the Lord, will be unto her a wall of fire round about" (Zech. ii. 5); a singular expression at first sight, but yet exceedingly beautiful when the allusion is pointed out. Shepherds, in the circumstances above described, are accustomed at night to surround their flocks by a line or "wall" of fire, in order to protect them from the attacks of wild beasts, who have an unconquerable dread of fire. The custom is not perhaps so common among the Bedouins as in former times, but it is still adopted in other parts of the world.

With regard to cavern life, we may add that the Persians are not the only cave-men of modern times. The mountainous parts of Palestine abound in caves, and it is customary for the shepherds to occupy them. The following account of a Bedouin encampment on the road to Gaza, from the pen of Mr. Stephens, can scarcely fail to interest: "We were climbing up the side of a mountain, and saw on a little point on the

very summit the figure of an Arab kneeling in evening prayer. He had finished his devotions, and was sitting on the rock when we approached, and found that he had literally been praying on the housetop, for his habitation was in the rock beneath. almost every old man one meets in the East, he looked exactly the patriarch of the imagination, and precisely as we would paint Abraham, Isaac, or Jacob. He rose as we approached, and gave us the usual Bedouin invitation to stop and pass the night with him; and leading us a few paces to the brink of the mountain, he showed us, in the valley below, the village of his tribe. The valley began at the foot of the elevation on which we stood, and lay between ranges of broken and overhanging rocks, a smooth and beautiful table of green for perhaps a quarter of a mile, and beyond that distance broke off and expanded into an extensive meadow. The whole of this valley, down to the meadow, was filled with flocks of sheep and goats; and for the first time since I left the banks of the Nile I saw a herd of cows. . . . But where were the dwellings of the pastors, the tents in which dwelt the shepherds of these flocks and herds? In Egypt I had seen the Arabs living in tombs and among the ruins of temples; in the desert I had seen them dwelling in tents; but I had never yet seen them making their habitations in the rude crevices of the rocks. Such, however, were their habitations here. The rocks in many places were overhanging; in others there were chasms or fissures; and wherever

there was anything that could afford a partial protection from the weather on one side, a low, rough, circular wall of stone was built in front of it, and formed the abode of a large family. . . . It was not sheer poverty that drove these shepherds to take shelter in the rocks; for they were a tribe more than three hundred strong, and had flocks and herds such as are seldom seen among the Bedouins; and they were far better clad, and had the appearance of being better fed than my companions." After the account of the destruction of Sodom and Gomorrah, we read of Lot that "he dwelt in a cave, he and his two daughters" (Gen. xix. 30); and the immense size of some of these caves may be imagined when we consider that one of them alone afforded ample shelter for David and his four hundred malcontents (I Sam. xxii. 2).

But the Bedouins, as a rule, are tent-men; as indeed they have always been. Noah, Abraham, Isaac, Jacob—in fact all the patriarchs, were tent-men (Gen. ix. 21; xii. 8; xiii. 3 and 12; xxvi. 17 and 25; xxxi. 25, &c.); and Genesis iv. 20 tells us that Jabal "was the father of such as dwell in tents, and of such as have cattle." The Arab name for a tent is "Beeorit Shoar," which signifies "a dwelling of hair"—a very appropriate name, since almost all the tents of the Bedouins are made of a black or brown cloth of hair, prepared in the camp from the skins of their own sheep, goats, or camels. The blackness of this hair covering will partially explain the figurative language of Canticles i. 5, "I am black but comely, O

ye daughters of Jerusalem, as the tents of Kedar;" and though the expression "comely" would scarcely apply to a single Arab tent, which has rather a gawky appearance when seen close, it might well be used of an encampment, which at a distance presents a very beautiful sight. "Nothing," says Dr. Shaw, "can afford a more delightful prospect than a large extensive plain, with those movable habitations pitched in circles upon them." It was with such a prospect before him that Balaam was moved to exclaim, "How goodly are thy tents, O Jacob, and thy tabernacles, O Israel!" (Num. xxiv. 5).

An Arab tent is usually divided by a hanging partition, consisting of a white woollen carpet of Damascus manufacture, one apartment being devoted to the men, and the other to the women. The tent itself is kept firm and steady by bracing, or stretching down the eaves with cords tied to hooked wooden pins, which the Arabs drive into the ground with a mallet. One of these pins would answer to the nail, as the mallet would answer to the hammer which Jael used in fastening to the ground the temples of Sisera. Lord Lindsay observes, "I never drive in a tent-pin without thinking of Jael and Sisera" (Jud. iv. 21).

These tents are moved from place to place with great facility, a fact which has furnished some very beautiful and impressive imagery in the Word of God. Of Jerusalem it is said, it shall be "a quiet habitation, a tabernacle that shall not be taken down;" and Hezekiah, in his sickness, complains pathetically, "Mine

age is departed, and is removed from me as a shepherd's tent" (Isa. xxxiii. 20, and xxxviii. 12). "There is something very melancholy," writes Lord Lindsay, "in our morning flittings. The tent-pins are plucked up, and in a few minutes a dozen holes, a heap or two of ashes, and the marks of the camel's knees in the sand, soon to be obliterated, are the only traces left of what has been for a while our home." Another traveller writes, "Now we were taught the meaning of 'dwelling in tents with Isaac and Jacob.' Such a life is one of constant dependence and faith. In the morning, when the tent is struck, the traveller never knows where he is to pitch it at noon or evening, whether it be beside the palm and springs of water, or in solitude and sand." Beautiful type of the Christian But he, thank God! can say with Paul, traveller! "We know that if our earthly house of this tabernacle were dissolved, we have a building of God, a house not made with hands, eternal in the heavens" (2 Cor. v. I).

Referring to the account, in I Sam. xxvi. 5-12, of David's meeting with Saul in Hachilah, in which the latter is described as sleeping within the trench, with his spear stuck in the ground at his bolster and a cruse of water at his head, Dr. Thomson remarks, "I noticed at all the encampments which we passed that the sheik's tent was distinguished from the rest by a tall spear stuck upright in the ground in front of it; and it is the custom, when a party is out on an excursion for robbery or for war, that when they halt to rest

the spot where the chief reclines or sleeps is thus designated. So Saul, when he lay sleeping, had his spear stuck in the ground at his bolster, and Abner and the people lay around him. The cruse of water at Saul's head is in exact accordance with the customs of the people at this day. No one ventures to travel over these deserts without his cruse of water, and it is very common to place one at the 'bolster,' so that the owner can reach it during the night. The Arabs eat their dinner in the evening, and it is generally of such a nature as to create thirst, and the quantity which they drink is enormous. The cruse is therefore in perpetual demand. Saul and his party lay in a shady valley, steeped in heavy sleep, after the fatigue of a hot day. The camp ground of Sheik Farejj in Wady Sheikaiyif is adapted in all respects to be the scene of the adventure. . . . There are numbers of ravines where the whole could be enacted, every word be heard, and yet the speaker be quite beyond the reach of his enemies."-Scrip. H. N.; Bib. Treas., vol. i.; Incid. of Trav.; Tr. in B. and L.; Let. on E. and H. L.; M. and C. of the East; Land and Book.

THE DESERT AND THE WILDERNESS.—The Word of God is full of allusions to the desert and the wilderness, and the works of travellers abound with references to the same subject. The difficulty is not in collecting information, but in selecting from the facts which lie to hand. Perhaps we cannot do better than introduce the subject by a general description of a desert

from the pen of Mr. Belzoni. "It is difficult." says this writer, "to form a correct idea of a desert without having been in one: it is an endless plain of sand and stones, sometimes intermixed with mountains of all sizes and heights, without roads or shelter, without any sort of produce for food. The few scattered trees and shrubs of thorns, that only appear when the rainy season leaves some moisture, barely serve to feed wild animals and a few birds. Everything is left to nature; the wandering inhabitants do not care to cultivate even these few plants, and when there is no more of them in one place, they go to another. When the trees become old and lose their vegetation in such climates as these, the sun, which constantly beams upon them, burns and reduces them to ashes. The other smaller plants have no sooner risen out of the earth than they are dried up, and take the colour of straw." Woe to the traveller who, in the midst of such a scene, awakens to the fact that his supply of water is exhausted, or, at least, is insufficient to last him to his journey's end! · We sometimes talk of thirst in this country, but we know not the meaning of the word. It is one thing to be thirsty, and quite another to be perishing with thirst; indeed, we must go to the desert if we would understand what the craving really is. Perishing with thirst! What a condition is this when we come seriously to consider it! "What a situation for a man, though a rich one-perhaps the owner of all the caravan! He is dying for a cup of water-no one gives it him; he

offers all he possesses—no one hears him; they are all dying, though by walking a few hours farther they might be saved: the camels are lying down and cannot be made to rise; no one has strength to walk; only he that has a glass of that precious liquid lives to walk a mile farther, and perhaps dies too. . . . To be thirsty in a desert without water, exposed to the burning sun without shelter, and no hopes of finding either, is the most terrible situation that a man can be placed in, and one of the greatest sufferings that a human being can endure. The eyes grow inflamed, the lips and tongue swell, a hollow sound is heard in the ears which brings on deafness: and the brain appears to grow thick and inflamedall these feelings arise from the want of a little water."

Such, in some measure, must have been the condition of Ishmael, and perhaps of Hagar herself, when the water in the bottle was spent, and she cast the child under a shrub in the wilderness of Beersheba in order that she might not see him die (Gen. xxi. 14-19). What a thrill of joy must have gone to her heart when her eyes were opened and she saw the well of water (ver. 19). With what alacrity must she have filled her bottle, and run back to the thirsty and all but dying child! "In a northern climate," says Mr. Carne, "no idea can be formed of the exquisite luxury of drinking in Egypt. Little appetite for food is felt; but when, after crossing the burning sands, you reach the rich line of woods on the brink of the

Nile, and pluck the fresh limes, and mingle their juice with the soft river water, one then perceives the beauty and force of those similes in Scripture where the sweetest emotions of the heart are compared to the assuaging of thirst in a sultry land." The same traveller states that he was never more strongly impressed with the simile of the shadow of a great rock in a weary land (Isa. xxxii. 2) than when he saw from the top of a sand-hill some miles from Jericho, that city a distance off, and a great level plain of soft sand between, unrelieved by a single tree or shrub of any kind.

Another writer graphically describes the distress occasioned through lack of food and water in the desert, and his remarks furnish a striking illustration. "Travelling all that day and night," he writes, "without eating, resting, or sleeping, we could not avoid falling off our camels while we were half-sleeping, half-waking. A thousand strange dreams and fancies came into our heads whilst, hungry and thirsty, we sat nodding on our camels. We thought we saw somebody reach us victuals and drink, and, putting out our hands to take it, and stretching ourselves to overtake it when it seemed to draw back, we tumbled off our camels, and by a severe fall found it a dream and illusion." The scripture so forcibly illustrated by this passage is Isaiah xxix. 8: "It shall even be as when an hungry man dreameth, and behold, he eateth; but he awaketh, and his soul is empty: or as when a thirsty man dreameth, and behold, he drinketh;

but he awaketh, and behold, he is faint, and his soul hath appetite: so shall the multitude of all the nations be that fight against Mount Zion."

Another passage in the same prophet is believed to contain an allusion to the Mirage. "In the wilderness shall waters break out, and streams in the desert. And the parched ground shall become a pool, and the thirsty land springs of water: in the habitations of dragons, where each lay, shall be grass, with reeds and rushes" (Isa. xxxv. 6 and 7). The original of the word here rendered "parched ground" is serab: and this is the very word, says Kitto, which in Arabic is used to denote the phenomenon known to us as the mirage. Lowth concurs in this, and would substitute the expression "glowing sand" for "parched ground;" while the learned editors of Spottiswoode's Variorum Bible give "heat fancy" (i.e., mirage). The Arabs call the phenomenon the "Goblin of the Desert," a name, says Hackländer, which it really deserves; for it is like "an evil spirit that beguiles the wanderer from the safe path, and mocks him with a false show of what his heated brain paints in glowing colours. Whence comes it," continues this writer, "that this illusion at first fills with uneasiness-I might even say with dismay—those even who ascribe its existence to natural causes? On a spot where the bare sands spread out for hundreds of miles, where there is neither tree nor shrub, nor a trace of water, there suddenly appeared before us groups of tall trees, proudly girding the running stream, on whose waves we saw the

sunbeams dancing. Hills clad in pleasant green rose before us and vanished, small houses, and towns with high walls and ramparts, were visible among the trees, whose tall boles swayed to and fro in the wind like reeds. Far as we rode in the direction of the apparition, we never came any nearer to it; the whole seemed to recoil, step for step, with our advance. We halted, and remained long in contemplation of the magic scene, until whatever was unpleasant in its strangeness ceased by degrees to affect us. had I seen any landscape so vivid as this seeming one; never water so bright, or trees so softly green, so tall and stately. Everything seemed far more charming there than in the real world; and so strongly did we feel this attraction, that, although we were not driven by thirst to seek for water where water there was none. still we would willingly have followed on and on after the phantom; and thus we could well conceive how the despairing wanderer, who, with burning eyes, thinks he gazes on water and human dwellings, will struggle onward to his last gasp to reach them, until his fearful, lonely doom befalls him."

Deserts are linked with pits in the expression, "a land of deserts and pits," of Jeremiah ii. 6; and one traveller, at least, has not omitted to notice the existence of such places in the wilderness through which he travelled. "On each side of us," he writes, "were perpendicular steeps some hundred fathoms deep. On every part is a wild confusion of hanging precipices, disjointed rocks, and hideous chasms. Omnipotent

Father! to Thee we trust for our deliverance from the perils that surround us. It was through this wilderness Thou didst lead Thy chosen people. It was here Thou didst manifest Thy signal protection, in snatching them from the jaws of destruction which opened upon every side." One of these chasms measured three hundred yards long, one hundred yards wide, and as many deep.—H. Observ.; E. and N.; Belzoni; Carne's Let.

CHAPTER VI.

THE ANIMAL CREATION: INSECTS, BEASTS, AND REPTILES.

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Adder—Ant—Antelope—Ape—Asp—Ass—Bat—Bear—Bee—Behemoth — Boar — Bull — Camel — Camel-leopard (see Chamois) —
Cankerworm — Caterpillar — Chameleon — Chamois—Cockatrice—
Coney—Dog—Dragon — Fallow-deer — Ferret—Flea—Fly—Fox
—Frog — Gazelle (see Antelope) — Gnat—Goat (see Flocks and
Herds, and Wild Goat, chap. v.)—Hare—Hart (see Antelope)—
Hind (see Antelope)—Hornet—Horse—Hyena—Hyrax (see Coney)
—Jackal—Jerboa (see Coney)—Kangfud — Leopard — Leviathan
—Lice—Lion—Lizard—Locust—Mole—Moth—Mouse (see Coney)
—Mule—Palmer-worm—Porcupine (see Kangfud)—Pygarg (see
Antelope)—Roe (see Antelope)—Roebuck (see Antelope)—Scorpion—
Serpent—Sheep (see Flocks and Herds, chap. v.)—Snail—Spider—
Swine—Tortoise—Unicorn—Viper (see Serpent)—Weasel—Whale
(see Dragon and Fish, chap. viii.)—Wild Ass (see Ass)—Wild Goat
—Wolf.

THE Bible not being a book designed to instruct mankind in the laws of creation, but rather a revelation of the mind of God with reference to man himself, we need not expect, when entering upon an examination of the animals therein referred to, to find that any systematic arrangement has been recognised, nor even the broad divisions into classes, orders, and families. When animals are mentioned at all it is always in connection with man. In Genesis i. and ii., where man is first brought upon the scene, we see him as the

lord of creation, giving names "to all cattle, and to the fowl of the air, and to every beast of the field" (ver. 19 and 20). At the fall the lower creation participates in the curse, and suffering and death become the portion of animals as well as men; at the present moment, in the expressive language of Scripture, "the whole creation groaneth and travaileth in pain together," having been "made subject to vanity, not willingly," but by reason of man, as Romans viii. 18-23 plainly teaches; and if we look on to that moment when the millennium of man's earthly blessing shall commence, the same truth is manifest. Creation will then be delivered from the curse; "the wolf and the lamb shall feed together, and the lion shall eat straw like the bullock. . . . They shall not hurt nor destroy in all my holy mountain, saith the Lord" (Isa. lxv. 25).

And in conformity with this truth we find that, even when we do get any distinction or classification of animals in Scripture, that distinction or classification is made with reference to man, rather than with any view to illustrate or elucidate the analogies of creation. For example, in the lists of animals in Leviticus xi. and Deuteronomy xiv., the distinction made is between the animals which might be eaten by the Jews and those which might not be eaten; and these two classes are called respectively the clean and unclean animals. The same distinctions held good in the case of animals which were used for sacrificial purposes: the clean animals, particularly those of the

beeve, goat, or sheep kind, were offered; the unclean animals never.

"Interpreters," says the learned editor of Calmet, "are much divided with relation to the legal purity or impurity of animals. It is believed by some that this distinction obtained before the flood, since God commanded Noah (Gen. vii. 2) to carry seven couple of clean animals into the ark, and only two of unclean: but others are of opinion that it is altogether symbolical, and that it denotes the moral purity which the Hebrews were to endeavour after, or that impurity which they were to avoid, according to the nature of these animals. Thus, if a hog, for example, signified gluttony; a hare, lasciviousness; a sheep, gentleness; a dove, simplicity, then the principal design of Moses in prohibiting the use of swines' flesh was to condemn gluttony and excess in eating or drinking; or in recommending sheep or doves it was to recommend gentleness, &c. Others believe that God intended to preserve the Hebrews from the temptation of adoring animals, by permitting them to eat the generality of those which were regarded as gods in Egypt, and leading them to look with horror on others to which likewise divine honours were paid. They never had any idea of worshipping the animals they ate, still less of adoring those which they could not persuade themselves to use even for nourishment. Tertullian thought that God proposed, by this means, to accustom the Hebrews to temperance, by enjoining them to deprive themselves of several sorts of food. Many commentators, however, discern in the animals which are forbidden as unclean merely some natural qualities which are really hurtful, or which, at least, are understood to be so by certain people. "Moses," says Calmet, "forbade the use of those beasts, birds, and fishes, the flesh of which was thought pernicious to health; those which were wild, dangerous, or venomous, or that were so esteemed. God, likewise, who designed to separate the Hebrews from other people, as a nation consecrated to His service, seems to have interdicted the use of certain animals, which were considered as unclean, that by this figurative purity they might be inclined to another purity, real and perfect, as is intimated" (Lev. xx. 24).—C. Dict.

We may add that the works of Bunyan contain an interesting fragment on this subject. He writes: "I was also made, about this time, to see something concerning the beasts that Moses counted clean and unclean. I thought those beasts were types of men; the clean, types of them that were the people of God; but the unclean, types of such as were the children of Now I read that the clean beasts the Wicked One. 'chewed the cud;' that is, thought I, they show us we must feed upon the Word of God: they also 'parted the hoof.' I thought that signified we must part, if we would be saved, with the ways of ungodly And also, in further reading about them, I found that, though we did chew the cud as the hare, yet if we walked with claws, like a dog, or if we did part the hoof, like the swine, yet if we did not chew

the cud, as the sheep, we are still, for all that, but unclean; for I thought the hare to be a type of those that talk of the Word, yet walk in the ways of sin; and that the swine was like him that parted with his outward pollution, but still wanteth the Word of Faith, without which there could be no way of salvation, let a man be never so devout."—Grace Abounding.

The identification of many of the animals mentioned in Scripture is a difficult task; but the success which has followed the researches of Biblical scholars in this direction in the past forbids the thought that the identification of the remainder is an impossibility. Earnest study of the subject, if pursued in dependence upon God, may in time effect all that is to be desired. Meanwhile, we present to the reader such facts as the present state of our knowledge will permit.

THE ADDER.—There are three or four words in the original which are rendered "adder" in the Authorised Version, and in all places where the word is found a venomous serpent of some kind is intended. In Genesis xlix. 17 we read, "Dan shall be a serpent by the way, an adder in the path, that biteth the horse's heels, so that his rider shall fall backward." And it would seem that the reptile alluded to here is the coluber cerasies of Linnæus, whose habit of lurking in the road and biting at the horse's heels is described by Bruce in his "Abyssinian Travels." In the Psalms we read of "the deaf adder that stoppeth her ear, which will

not hearken to the voice of charmers, charming never so wisely" (Ps. lviii. 4 and 5); and here, undoubtedly, we have the earliest reference to the art of serpent-charming, which is still practised in the East. It is interesting to notice that the profane writers of ancient times make mention of serpent-charmers, of whom no people, perhaps, were more famous than the Psylli, a people of Cyrenaïca, mentioned by Pliny. Lucan also, a poet of the first century (A.D.), gives a long account of the ancient belief concerning serpent-charming, in which he makes frequent allusions to the voice of the charmer. Virgil has this reference:—

"Umbro, the brave Marrubian priest, was there.

His charms in peace the furious serpents keep, And lull th' envenomed viper's race to sleep; His healing hand allayed the raging pain, And at his touch the poisons fled again."

The power of music over serpents is now generally allowed, and, indeed, cannot with justice be denied. A writer in the *Penny Magazine* furnishes a remarkable instance of the kind, which was communicated to him by a gentleman of high station in the Honourable Company's Civil Service at Madras. A large hooded snake having been chased to its hole by some native Indians, this gentleman sent for a snake-charmer, and instructed him to exhibit a specimen of his art in his presence. The man accordingly deposited the two baskets which he had brought with him on the ground, and ascending a grassy height

on the summit of which the snake was hiding, he began to play. "At the sound of music the snake came gradually and slowly out of its hole. When he was entirely within reach, the snake-catcher seized him dexterously by the tail, and held him thus at arm's length; whilst the snake, enraged, darted his head in all directions, but in vain: thus suspended, he has not the power to round himself so as to seize hold of his tormentor. He exhausted himself in vain exertions; when the snake-catcher descended the bank, dropped him into the empty basket, and closed the He then began to play, and after a short time, raised the lid of the basket; the snake darted about wildly, and attempted to escape; the lid was shut down again quickly, the music always playing. This was repeated two or three times; and in a very short interval, the lid being raised, the snake sat on his tail, opened his hood, and danced quite as quietly as the tame snakes in the other basket; nor did he again attempt an escape."

There seems good reason for supposing that the deaf adder (Hebrew, pethen) of the passage which we have just been illustrating, was the aspic of the ancients, and that it is identical with the bætan of the modern Arabians is even more probable. "It is about a foot in length, and two inches in circumference, its colour being black and white. It is poisonous in the highest degree: the body of the sufferer swells, and death almost instantaneously ensues." Moreover, the common people of Cyprus call

this snake kuft, which means "deaf."—Pen. Mag., April 1833; Illus. Com., vol. iii.

THE ANT.—This little insect is twice mentioned in the Word of God; on both occasions on account of its provident habits. Solomon counsels us to consider its ways and be wise, and naturalists tell us that we must travel eastward if we would do this in a worthy "Their industry appears greatly to surpass that of our ants and bees, and they are certainly more skilful in architectural contrivances. The elevation also of their edifices is more than five hundred times the height of the builders. Were our houses built according to the same proportions, they would be twelve or fifteen times higher than the London Monument, and four or five times higher than the pyramids of Egypt, with corresponding dimensions in the basement of the edifice." The economy and character of these insects is not less worthy of admiration. "Their unwearied industry and indomitable perseverance, the arduous and sincere exertions of every individual towards the common object, their regulated labour, the alacrity and zest with which the overburdened are assisted, their care in observing the times and seasons, the judgment with which they avail themselves of favourable circumstances, and the grand evidence which even these minute creatures are enabled to offer of the effect produced by the co-operation of numbers in a good and useful object-are all circumstances which explain and enforce the injunction of the sacred

writer, "Go to the ant, thou sluggard; consider her ways and be wise" (Prov. vi. 6).

Agur, the son of Jakeh, has told us, in Proverbs xxx. 25, that "the ants are a people not strong, yet they prepare their meat in the summer;" and such old naturalists as Ælian and Aldrovand inform us that they have seen these industrious little insects ascending stalks of growing corn, and throwing down the ears which they bit off to their companions below, and have even seen their granaries. Clever scientists of modern times, wise in their own conceit, have questioned the truth of these assertions, and described them as "fables which accurate observation has satisfactorily contradicted." "Gould," say they, "disproved most satisfactorily the ancient fable of ants storing up corn for winter provision, no species of ants ever eating grain, or feeding in the winter on anything." But let us see what a modern naturalist -no less an authority than the Rev. J. G. Woodhas to say on this subject. "These be brave words indeed," he remarks, "but they are only words, without the least substratum of fact, the truth being that Agur, Ælian, Aldrovandus, and the 'ancient fabulists' were perfectly right. Here is an example of imperfect knowledge. Gould (who lived more than a century ago) treated only of English ants, and knew nothing of the ants of other countries. . . . I wonder that it never occurred to Gould and the writer whom I have quoted, that Solomon and Agur knew nothing of English ants, but were alluding to those of Syria, and were probably

correct in their statement. If Gould had only visited the South of France he would have found among the commonest of the insects a species of ant which has long been celebrated for its habit of laying up and preparing corn exactly as described by the 'fabulists,' Ælian and Aldrovandus. The insect in question is called the harvesting ant, Atta barbara; another species, Atta structor, has almost identical habits, and is mostly called by the same name. . . . They are small insects, barely exceeding a quarter of an inch in length, and are nearly black in colour. The head is nearly as large as the rest of the body, and is armed with a pair of powerful jaws, formed so as to cut like Towards the end of autumn these ants ascend the stems of various plants, and carry the seeds to their dwellings below ground. They prefer the cultivated grasses, such as wheat, barley, oats, and rye, but they will use the seed of almost any grass, and are especially fond of those of shepherd's purse, nettle, speedwell, and the like. The ants act exactly as stated by Ælian, one set of ants ascending the stems and nipping off the seeds, while the labourers wait for them beneath, pick them up and carry them home. . . . When the seeds are brought home, they are carried down into the lowest chambers of the nest. These are always warm and always moist, and the result is that the seeds soon begin to sprout. soon as the young shoot appears, the ants bite it off, and then carry the maimed seed into the innermost chambers." So the Bible is right after all, and the

scientists have made their boast too soon.—Jus. Ar.; Illus. Com., vol. iii.; and Our Own G., June 1887.

THE ANTELOPE.—This graceful and timid animal is



THE ANTELOPE (Antelopus dorcas.)

often mentioned in Scripture under the various names

of hart, hind, roe, and roebuck. It is thought that the antelope dorcas or common gazelle is the particular animal referred to. Kitto thus describes it: "The gazelle is about two feet in height; the hair on the back is of a delicate fawn colour, passing into a broad band along the sides, which is suddenly interrupted by the white of the under surface of the body. horns, which are variegated by twelve or fourteen rings, stand diverged like the horns of an antique lyre." In Proverbs v. 19, a wife is likened to "the loving hind and pleasant roe;" and even to this day the same figure is preserved in the poetry of Eastern countries. D'Arvieux observes: "The Arabs express a woman's beauty by saying, 'she has the eyes of the gazelle.' The burden of their love-songs is the gazelle's eyes; and it is to this creature they invariably compare their mistresses when they wish to give in one word the idea of a perfect beauty. These gazelles are indeed very pretty creatures; and there is especially a certain innocent fear about them, that may well be compared to the modesty and bashfulness of a young girl." In the translation of an Egyptian love-song, given by Mr. Lane, we have the lines-

"Every night long my moaning ceaseth not, For a solitary gazelle that hath taken away my soul;"

and quotations might be multiplied.

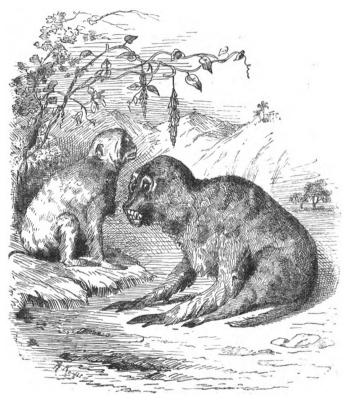
The Rev. Paxton Hood has illustrated Psalm xlii. I, "As the hart panteth after the water-brooks, so panteth my soul after thee, O God," in the following fanciful

though interesting manner: -- "Once a king, in crossing the desert in a lone caravan, was parched with thirst. Dreadful is that dry and thirsty land where no water is! The sands were strewn with the wrecks of caravans. the skeletons of men who had died of thirst lying in that dread cemetery, and then the cry arose, 'Water! water! there is no water!' It was a fearful moment. Parched throats and eves hopelessly looked up to the all too cloudless sky along the plain; overhead, the red copper sun. Then said one, 'We must let loose the harts, the light, fleet harts.' They bounded in all directions. Keen is their instinctive scent of waterthe spring was found; and then, when they sat to rest beside the beautiful and blessed pool, then said the king, as he took forth his tablets and wrote. 'As the hart panteth after the water-brooks, so panteth my soul after thee, O God!""

It only remains to say, that the gazelle was allowed to the Israelites for food, though not for sacrifice (Deut. xii. 22); its fleetness of foot is noticed in 2 Sam. ii. 18, and 1 Chron. xii. 8; it was hunted (Isa. xiii. 14); and, as we have already observed, was celebrated for its loveliness (Cant. ii. 9, 17; viii. 14).

The pygarg of Deut. xiv. 5 is believed to be a species of antelope; the marginal reading bison is altogether wrong. The teo of the same verse, erroneously translated "wild-ox," is also considered to belong to that genus, and to be the antelope gazella of Linnæus.—Illus. Com., vols. i., iii., and iv.; S. Dict., vol. ii.; Lane's M. E., vols. ii. and iii.; Bib. Treas., vol. iv.

THE APE.—Apes are mentioned in I Kings x. 22, and 2 Chron. ix. 21, and formed part of the merchandise brought from Tarshish by the fleets of Solomon



APE.

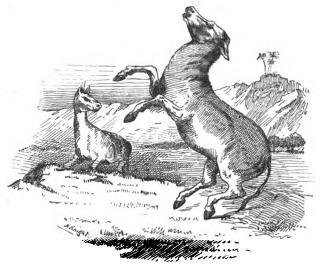
and Hiram. If the history of the Hebrew word teaches anything, it would show that these animals came from India, and therefore that the Tarshish of these two passages is that country. The ape, both in Sanscrit and Malabar, is called *Kapi*, which means swift, active: the Hebrew word is *Kôph*. The word, at least, if not the animal, was received from India. The cephs, or apes of Ethiopia, "are represented as tailless animals, climbing rocks, eating worms and ants, and protecting themselves from the attack of lions by casting sand into their eyes. In a mosaic pavement found at Praeneste, and figured in *Shaw's Travels*, p. 423, an ape or monkey is represented, having inscribed near it the word Keipen."—S. Dict., vol. i.

THE ASP.—The Hebrew word, in every instance where asp is given in our version, is pethen, the same word which is translated "deaf adder" in the passage alluded to (see Adder). A reference to our note on that reptile will save repetition.

THE Ass.—In Eastern countries "asses are often preferred to horses by the sheiks or religious men, and though most of the opulent merchants keep horses, they are not ashamed to appear mounted on asses." They are described as tall, delicately limbed, surefooted, and swift.

"The tamed onager or wild-ass, in Persia, often fetches a higher price than horses, and is sometimes sold for a hundred crowns: they are of a silvery white, are quicker than camels, and support fatigue better than the Tartar horses. They are obstinate to excess when beaten, but generally attached to their master: at the sight of danger they emit a kind of cry." The wild

ass is often mentioned by ancient writers. Xenophon thus speaks of it: "Of wild creatures, the most numerous were wild-asses. . . . The wild-asses, however, being swifter of foot than our horses, would, on gaining ground upon them, stand still and look around; and when their pursuers got nearly up to them, they



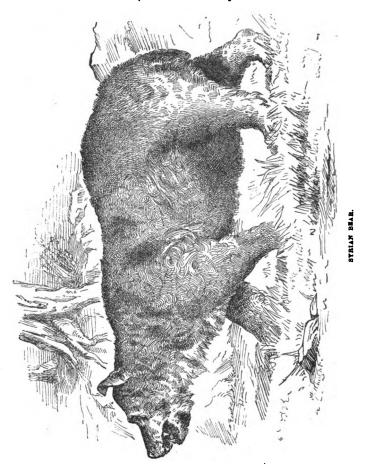
WILD-ASS.

would start off and repeat the same trick; so that there remained to the hunters no other method of taking them but by dividing themselves into dispersed parties, which succeeded each other in the chase. The flesh of the wild-asses taken in this manner was found to be like that of the red-deer, but more tender." A modern traveller, writing of this animal, says: "It is

of a light mouse-colour, with a dark streak over its shoulders and down its back. The head is large, but it is much more light and lively than the common ass in its gait. It is of a more obstinate nature, and seems to be extremely refractory under any restraint. The wildness and love of liberty which characterise this animal are beautifully described by the prophet Jeremiah: 'A wild ass used to the wilderness, that snuffeth up the wind at her pleasure' (ii. 24); and again in chap. xiv. 6, when their image is allied to all the horrors of a parched desert."—Anab., l. I; M. Sec. Jour. through Persia; Bib. Treas., vol. v.; and Rus. Aleppo.

THE BAT.—This little animal is mentioned in Isaiah ii. 20, and the Hebrew word (atalephim) is said to denote "fliers in darkness;" a particularly suitable name for bats, which sleep during the day, and only leave their retreats at night. "The equivocal character of the bat, as an animal furnished with wings of a peculiar nature, by means of which it flies after the manner of a bird, gave occasion to the remarkable description of it in Deut. xiv. 18, 19, 'The bat, and every creeping thing that flieth, shall be unclean unto you." It is a pretty little creature, with a body like a mouse, and long ears. The fine integuments, by means of which it flies, are stretched over a framework of bone, the structure of which may be easily traced when the wings are expanded. The animal is very plentiful in the East, where it harbours in caverns and deserted buildings, and sometimes in private dwellinghouses .- Illus. Com., vol. iv.

THE BEAR.—This animal is frequently mentioned in the Old Testament, but is now very scarce in Palestine.



Many commentators believe that the Syrian bear is the species referred to in Scripture. It is still found in

Syria and Western Asia, and is certainly a very ferocious looking beast, though not very large. One that was killed by the travellers Hemprich and Ehrenburg, near the village of Bischerre in Syria, measured four feet two inches from the nose to the tip of the tail, the tail being six inches. Syrian bears are sometimes of a fulvous-brown colour, and sometimes of a fulvous-white, variegated with fulvous spots. Their fur, which is made into caps, gloves, night-coverings, &c., is woolly beneath, with long straight hair externally; and between the shoulders there is a stiff mane of erected hairs about four inches long. The animal has various uses. Its shoulder-blades are made into sickles, the flesh is eaten, and the fat is melted into oil. Its intestines are scraped and cleaned, and made into windowpanes.—Scrip. N. H.; Illus. Com., vol. iv.

THE BEE.—Palestine was "a land flowing with milk and honey," and we may therefore conclude that bees were at one time very plentiful there. The use of the word as a figure of speech among the Israelites would also point to that fact, as when Moses told the children of Israel, "the Amorites, which dwelt in that mountain, came out against you, and chased you, as bees do" (Deut. i. 44); or again, when the Psalmist said, "They compassed me about like bees" (Ps. cxviii. 12). In Judges xiv. 8 and 9, the produce of the bees is spoken of, and its use as an article of food. The insect itself needs no description.

Венемотн.—The attempt to identify this animal

has led to much discussion. Some have thought that the elephant is intended, others the hippopotamus, and others an animal long since extinct—perhaps a species of mastodon. An attentive perusal of a literal translation of the whole passage in which the behemoth is mentioned (Job xl.), has led us to a conclusion in favour of the hippopotamus. Particularly were we struck with verses 15, 21, 22, and 23 of this translation, "Behold now behemoth, which I have made with thee. He eateth chives (the Egyptian sectile porrum) like cattle! . . . Beneath the lotus trees he lieth down, in covert of the reeds and marsh. The lotus trees hide him with their shadow, the willows of the stream surround him. Lo! the river hath swollen beyond his channel; he does not haste to fly, he is confident though a river draw near to his mouth." Such language as this could not be used of the elephant, but it could very well be applied to the hippopotamus, whose home is in the river and among the reeds and marshes.

The Jews, however, have a fourth idea with regard to this monster. "They hold that behemoth is a huge animal which has subsisted since the creation without propagating its kind, and which is reserved to be fattened by pious Jews in a future day. Every day he eats up all the grass of a thousand hills, and at each draught he swallows as much water as the Jordan yields in the course of six months. Such is, or has been, their opinion."—Illus. Com., vol. iii.; and S. Dict., vol. i.

THE BOAR.—The boar is a pachydermatous or thickskinned animal. It is only once mentioned by name in Scripture, viz., in Ps. lxxx. 13, where, Israel having been likened to a vine, the Psalmist touchingly exclaims, "The boar out of the wood doth waste it, and the wild beast of the field doth devour it." beautiful illustration of this is furnished by Mr. Hartley. "My friend, the Rev. Mr. Leeves," he writes, "was proceeding, in the dusk of the evening, from Constantinople to Therapia. Passing a vineyard, he observed an animal of large size rushing forth from among the vines. The Greek syrogee, who was riding fast, exclaimed, 'Wild-boar! '-and really it proved a wild-boar, who was retreating from the vinevards to the woods. 'What has the wild-boar to do with the vineyards?' inquired Mr. Leeves. 'Oh!' said the syrogee, 'tis the custom of the wild-boars to frequent the vineyards and to devour the grapes.' And it is astonishing what havoc a wild boar is capable of effecting during a single night. What with eating and what with trampling under foot, he will destroy an immense quantity of grapes. With what fatal propriety does this affecting image retain its force up to the present moment! Still is the vine of Israel broken down, ravaged, cut down, burnt with fire." Another traveller tells us that the Arabs of the valley of the Ghor are unable to cultivate the common barley owing to the depredations of this animal. They therefore grow a less esteemed sort, which the swine do not touch.—S. Dict., vol. i.; Res. in G. and L.; B. Syria, &c.

THE BULL.—Bulls are referred to symbolically in Ps. xxii. 12: "Many bulls have compassed me, strong bulls of Bashan have beset me round," in which connection they seem to convey the thought of man's strength or power put forth for evil. Horned beasts (and sometimes the horn alone) were symbolical of power among the ancients, not excepting the Hebrews, and even at the present day the word itself carries with it somewhat of this meaning. An insulting, domineering person in the East is called a "bull," and in this country we have the word "bully," which has the same significance. The Hebrew word translated "wild bull" in Isa li. 20, denotes a species of antelope.—Illus. Com., vol. iii.

THE CAMEL—This useful beast has been well named the "ship of the desert." What the Bedouins would do without it, it would be difficult to sav. Its home is the desert; and it was made, in the wisdom of the Creator, to be the carrier of the desert. The coarse and prickly shrubs of the waste it devours with relish. and even of these it eats but little. So few are the wants of its nature, that its power of going without food, as well as without water, is wonderful; it never appears to tire, but commonly marches as freshly at evening as in the morning. Its stomach is provided with a number of distinct sacs or bags (in a dromedary thirty of these have been counted), which are capable of retaining large quantities of water for a considerable time. When travellers are overtaken by thirst they

will sometimes kill their camels in order to extract the little liquid which remains in their stomachs; but such expedients are only resorted to as a last resource.



THE CAMEL.

Another important quality of the camel is its surefootedness, which enables it to travel up and down the most rugged mountain passes with ease and safety; but it does not choose its way with the sagacity that belongs to the mule and the horse. There is nothing graceful or sprightly in any camel, old or young; all is misshapen, ungainly, and awkward. The young have nothing frisky or playful, but in all their movements are as staid and sober as their dams. In fact, taken altogether, they are silly, timid animals, and when alarmed, will run and huddle together like sheep; some have represented them as patient, but if so, it is the patience of stupidity. The dromedary is distinguished from the camel by its single hump.—Rob. Res.; Nat. Theo.; Belzoni.

THE CAMEL-LEOPARD. (See Chamois.)

THE CANKERWORM.—In Nahum iii. 16 we read, "The cankerworm throweth off its scales and fleeth away;" and this reference to the habits of the insect has led some to suppose that the locust, in a certain stage of its growth, is intended. This stage, we suppose, would be when the locust is changing from its pupa state into the perfect insect (see Locust). Kitto thinks that a species of may-chaffer is the insect referred to, which he describes as furnished with strong mandibles and jaws, by which it makes great havoc among the leaves.

—Illus. Com., vol. iv.; and S. Dict., vol. i.

THE CATERPILLAR.—The Hebrew word chesil, rendered "caterpillar" in our version, has been variously understood by different commentators. Some suppose the chaffer is meant, others the mole-cricket, others the cockroach, and others, again, the locust. Kitto

argues at some length for the plant-louse or aphis, a little insect but too familiar in our English gardens, which feeds upon our rose trees and other plants, and is itself fed upon by the lady-birds.—Illus. Com., vol. iv.

THE CHAMELEON.—The word so rendered in the Authorised Version probably denotes a species of lizard known as the Lacerta scincus, and not the cha-It is found in Arabia, Nubia, and Abyssinia, and is remarkable for the facility with which it presses its way into the sand when pursued, a proof of its strength, which some think is intimated in the Hebrew name (coach). But it is believed that the chameleon is referred to in the same verse (Lev. xi. 30), where we have "mole" in our version; as the Hebrew word tinshemeth comes from a root signifying to breathe. "The chameleon . . . has lungs of such vast dimensions, that, when filled, the body is so much dilated as to appear transparent. The varying capacity of their lungs enables them, by exposing a greater or less portion of blood to the influence of the air, to alter the tincture of the circulating fluid at pleasure, which when sent to the surface must tend to give a colour more or less vivid to the skin. The chameleon . . . is a native of Egypt, Barbary, and of the South of Spain."—Illus. Com., vol. i.

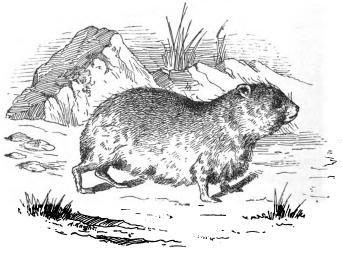
THE CHAMOIS.—This name occurs in our version in Deut. xiv. 5, but doubtless the giraffe or camel-leopard is intended. It is mentioned among the things that

an Israelite might eat. The animal itself needs no description.

THE COCKATRICE.—Marginal Bibles give "adder" in three out of the four passages in which the word occurs, and might have done so in the fourth, as the same Hebrew word is used. In the Septuagint version it is basiliskos, and perhaps we should be right in considering that the basilisk is intended: as for the cockatrice, it is only a fabulous animal that never existed. The eggs of the basilisk are referred to in Isa. lix. 5; from which it would appear to be a snake, and not a viper, as the latter brings forth its young alive.—Bib. Treas., vol. i.; S. Dict., vol. i.

THE CONEY.—Critics seem generally agreed that the shaphan, rendered "coney" in our version, has been erroneously identified with that animal. conceive that the jerboa or hyrax (Hyrax Syriacus) is really intended, and the description of the animal admirably agrees with the allusions to the shaphan of It is mentioned in Prov. xxx. 24 as one of the "four things which are little upon the earth," but yet "are exceeding wise," and in the 26th verse we read, "the conies are but a feeble folk, yet make they their houses in the rocks." "The word shaphan," says the Rev. J. G. Wood, "literally signifies a hider, and those who know its habits cannot fail to see that it is singularly appropriate to the hyrax, for there are few animals which are more difficult of detection. They are partly gregarious, and always have a sentinel

posted on some elevated spot, to give alarm of impending danger. At his warning cry every hyrax darts into some rocky crevice. Should one of these animals be surprised at a distance from any crevice in which it can take refuge, it crouches against the rock and remains motionless. Its brown fur then blends so accurately with the colour of the rock that



CONEY OR JERBOA.

even when pointed out it can hardly be distinguished. The Arabs of the present day are very fond of its flesh, but seldom procure it, owing to the great cunning of the animal; in consequence, they respect it highly."

In Leviticus xi. 5 and Deut. xiv. 7 the shaphan is declared to be unclean, because it chews the cud but does not divide the hoof; and in Psalm civ. 18 we

get another reference to the rocks as its habitation. Dr. Kitto (like the naturalist above quoted) states that the hyrax is a gregarious animal, which subsists on grain, fruits and roots, and affirms positively that it chews the cud: while Bruce observes that he never saw the animal upon the ground, or, indeed, anywhere except among the large stones at the mouths of caves and clefts of the rock in which it resides. "They do not," continues that writer, "stand upright upon their feet, but seem to steal along as in fear, their belly being nearly close to the ground, advancing a few steps at a time and then pausing. They have something very mild, feeble-like, and timid in their deportment, are gentle and easily tamed, though when roughly handled at first they bite very severely." With regard to the appearance of the hyrax, we may say that it is not unlike the Alpine marmoret, with long hair, short tail, and round ears. It is about the size of a hare; and its general colour is grey mixed with a reddish-brown, but white under the belly, and blackish about the fore-feet.

It is thought that the mouse of the Authorised Version (see I Sam. vi. 5) is really the hyrax.—Illus. Com., vols. ii. and iii.; S. Dict., vol. i.; and Our Own G., June 1887; Trav. in Abys.

THE Dog.—The animal is frequently mentioned in Scripture. "It was used by the Hebrews as a watch for their houses, and for guarding their flocks. Then also, as now, troops of hungry and semi-wild dogs

used to wander about the fields and streets of the cities, devouring dead bodies and other offal; and thus became such objects of dislike that fierce and cruel enemies are poetically styled dogs in Psalm xxii. Moreover, the dog being an unclean animal, the terms dog, dead dog, dog's head, were used as terms of reproach, or of humility in speaking of oneself (Isa. lvi. 10; Job xxx. 1; I Kings xiv. 11, xvi. 4, xxi. 19, 23; I Sam. xxiv. 14; 2 Sam. iii. 8, ix. 8, xvi. 9; 2 Kings viii. 13). Knox relates a story of a nobleman of Cevlon who, being asked by the king how many children he had, replied, 'Your Majesty's dog has three puppies.' Throughout the whole East 'dog' is a term of reproach for impure and profane persons, and in this sense is used by the Jews respecting the Gentiles, and by Mahometans respecting Chris-In the New Testament the epithet "dog" is applied to persons of evil principles and habits, as, "Beware of dogs, beware of evil workers" (Phil. iii. 2); and "Without are dogs, and sorcerers, and whoremongers, and murderers," &c. (Rev. xxii. 15).

"Every Eastern city," wrote the Scotch missionaries, "is infested with dogs, that prowl about the streets for food; and during all the night their ceaseless howlings reminded us of David's description of his enemies: 'They return at evening; they make a noise like a dog, and go round about the city'" (Ps. lix. 14). "All foreigners are struck with their noise and unsightly appearance. They wander about the streets with fierce, hungry looks, and occasionally even attack

the lonely passenger in the night." They "wander up and down for meat, and grudge if they be not satisfied" (Ps. lix. 15). In Prov. xxx. 31 the Hebrew phrase, zirzir mathenim, which means literally "the tightly-laced about the loins," has been rendered "greyhound;" but this is doubtless a mistake. Kitto is in favour of "warhorse," and in this rendering he is supported by Bochart, Gesenius, Boothroyd, and others.—Illus. Com., vol. iii.; Miss. to the Jews.

THE DRAGON.—In his note on Job xxx. 29, where dragons are mentioned, Kitto says, "The word here is tannim, and is variously rendered whales, dragons, seamonsters, crocodiles, serpents, jackals, wolves, &c. The three first significations are those usually given to it in our version. After this we need not add that it is altogether uncertain what animal is denoted." Perhaps the word is used in a general way to denote any strange or prodigious creature.—Illus. Com., vol. iii.

THE FALLOW DEER.—This animal is mentioned in Deut. xiv. 5 among the beasts that may be eaten. If it be the *cervus dama*, as many suppose, it is a deer of a reddish colour, smaller than the stag, and sheds its horns every year. The horns are flattened and toothed behind, for which reason it was anciently called the flat-horned deer. It is still found wild in Barbary and elsewhere.—Illus. Com., vol. i.; S. Dict., vol. i.

THE FERRET.—The Hebrew word anaka, rendered "ferret" in our version, has been variously translated

by Biblical scholars; but this, at least, is clear, the ferret is not intended. Cheyne and Driver give "Nilelizard," and Kitto suggests the lacerto gecko of Hasselquist, a species of lizard found in countries bordering the Mediterranean. It is of a reddish-grey, spotted with brown, and has a voice resembling that of a frog, which is intimated by the Hebrew word, importing a sigh or groan. The anaka is mentioned among the unclean animals in Lev. xi. 30.—Illus. Com., vol. i.

THE FLEA.—This troublesome little insect is very common in the East. Speaking of the houses of Egypt, Mr. Gadsby says, "Fleas are harboured in myriads in the coarse sacking blinds which the people have outside their windows and lattices to keep out the dust." Other travellers bear similar testimony. The insect is mentioned only twice in Scripture, namely, in I Sam. xxiv. 14, and xxvi. 20.—Wanderings, vol. i.

FLIES.—Flies, and swarms of flies, are mentioned several times in the Word of God. Perhaps the most important reference is to the plague of flies described in Exod. viii. 24. The insect here referred to is probably a small beetle, the blatta orientalis, called in German "schabe" or "kakerlaks." "The kakerlaks," says Pratte, in his "Travels through Abyssinia," "appear in a moment in the houses, and break forth, as if by a spell, suddenly from every aperture and fissure. Shortly before my departure from Adua, they filled in a few minutes the whole house of the resident missionary there. Only after the most laborious exer-

tions, and after covering the floors of the apartments with hot coals, they succeeded in mastering them. If they make such attacks during the night, the inmates are compelled to give up the houses; and even little children or sick persons, who are unable to rise alone, are then exposed to the greatest danger of life."

But in almost all other instances where the fly is referred to, it would appear that the *zimb* or dog-fly, apparently a kind of hornet, is intended. It is about



ZIMB OR DOG-FLY OF BRUCE.

the size of a bee, with large head and sharp jaws, but no sting; yet the weapons on its head make all amends for that deficiency. Even the elephant and the rhinoceros are not proof against its attacks; and when the camel is "once attacked by this fly, his body, head, and legs break out into large bosses, which swell, break, and putrefy, to the certain destruction of the creature."

— Egypt, &c.; and Trav. in Abys.

THE Fox.—This animal is still very common in Palestine and Syria. Its fondness for grapes is proverbial, and is mentioned inferentially in Cant. ii. 15: "Take us the foxes, the little foxes that spoil the vine." Its cunning is also proverbial, and is alluded to both in the Old and New Testaments. Ezekiel cries. "O Israel, thy prophets are like the foxes in the desert" (chap. xiii. 4); and our Saviour speaks of Herod as "that fox" (Luke xiii. 32). As the Scotch missionaries were passing through the rich vineyards which skirt the hill upon which Gibeon stands, two of these animals sprang out, and, crossing their path, ran into the cornfields. The thick leafy shade of the vine had concealed them from view while they were reaching after the grapes, like the secret destroyers mentioned in the Song. The Talmud has several proverbs with reference to the fox, as, for instance, "The fox does not die from being under the earth; he is used to it. and it does not hurt him." And again, "He has gained as much as a fox in a ploughed field," i.e., nothing. Another proverb relating to him is this-

> "If the fox be at the rudder, Speak him fairly, 'my dear brother.'"

"Some are of opinion that the 300 foxes, between whose tails Samson is said to have put firebrands, in order that they might set fire to the crops of the Philistines (Judg. xv. 4, 5), were jackals. Many of the modern Oriental names for the last-mentioned animals—chical of the Turks, sciagal, sciugal, sciachal or shacal of the Persians—come very near to the



JACKAL (THE "FOX" OF SCRIPTURE).

Hebrew word shual. Hasselquist, speaking of the canis aureus, the jackal, chical of the Turks, says: 'There are greater numbers of this species of fox to be met with than the former (canis vulpes), particularly near Jaffa, about Gaza, and in Galilee. I leave

others to determine which of these is the fox of Samson."—Miss. to the Jews; S. Dict., vol. i.; Eng. Cyclo., art. Canis.

THE FROG.—All are agreed that wherever the name of this reptile occurs in the Authorised Version, it is rightly thus rendered. Of the many species of frogs that are found in Egypt (and it is in connection with Egypt that the Old Testament references to the animal occur), the most common is the dotted Egyptian frog (Rana punctata), so called because the ash-coloured skin of the reptile is dotted with green spots. feet are marked with transverse bands, and the toes separated to half their length. In the course of an article on the plague of frogs (Exod. viii. 2 and 3), one writer says: "As far as we can tell there had always been frogs in Egypt; as the water in the river became less in quantity, the slimy banks were very favourable for the increase of frogs. Even in our regions one female will lay from 600 to 1100 eggs in the spring; doubtless they are more fruitful under more favourable circumstances."—Illus. Com., vol. i.; Egypt, &c.

THE GAZELLE. (See Antelope.)

THE GIRAFFE, (See Chamois.)

THE GNAT.—This insect is only once mentioned in our version, namely, in the words of our Lord: "Ye blind guides, which strain at a gnat, and swallow a camel" (Matt. xxiii. 24). The word in the original is the generic word for gnat. Philo, an Egyptian

Jew of the beginning of the first century A.D., describes it as "an insect, although of very small size, yet of a most troublesome nature; for it hurts not only the surface, causing intolerable and protracted itching, but penetrates also into the interior through the ears and nose. It flies even into the eyes of those who do not guard themselves, and produces serious pain."—

Egypt, &c.

THE GOAT. (See Flocks and Herds, and Wild Goat.)

THE HARE.—This timid and pretty animal, so well known in this country, abounds at the present day in Syria, Arabia, and Egypt. It is specified among the unclean animals because it chews the cud; a fact which has been denied, on the ground that the hare has none of the characteristics of a ruminating animal. The poet Cowper, however, who domesticated three of these animals, and had every opportunity of watching their ways, affirms, "they chewed the cud all the day till evening."—Gent. Mag. 1784.

THE HART. (See Antelope.)

THE HIND. (See Antelope.)

THE HORNET.—An insect several times mentioned in the Word, and doubtless the *zimb* or dog-fly, a description of which will be found under the heading *Flies*.

THE HORSE.—The most striking feature in the Biblical notices of this animal is the exclusive applica-

tion of it to warlike purposes. In no instance is it employed for the purposes of ordinary locomotion or agriculture, if we except Isa. xxviii. 28, where we learn that horses were employed in threshing; not, however, in that case put in the gears, but simply driven about wildly over the strewed grain.—S. Dict., vol. i.

THE HYENA.—Though not mentioned by name in our version, many commentators have supposed that this animal is referred to in Jer. xii. 9, "My heritage is unto me as a speckled bird," and the Seventy has so rendered it (huaine). In the language of the Talmud it means a she-leopard or panther. It is also thought that the passage in I Sam. xiii. 18, "the valley of Zeboim," should be translated "the valley of hyænas." "The hyæna was common in ancient as in modern Egypt, and is constantly depicted on the monuments; it must, therefore, have been well known to the Jews, if, indeed, not equally common in Palestine." It is but just to add, however, that considerable difference of opinion still exists on this question.—S. Dict., vol. i.; Illus. Com., vol. iv.

THE HYRAX. (See Coney.)

THE JACKAL. (See Fox.)

THE JERBOA. (See Coney.)

THE KANGFUD.—"We learnt," write the Scotch missionaries, "that a rough, hairy animal, which we understood to be the porcupine, abounds in Wady

Mousa, and that the Arabs call it kangfud, which is evidently the Hebrew word in Isa. xxxiv. 11, though translated 'bittern' in our version." "Dr. Keith tried to ascertain from the Bedouin chief the fact of porcupines being found in Petra; he asked him what the kanafud was, when the Bedouin immediately imitated the cry it uttered, and on being shown a porcupine quill, at once recognised it as belonging to the kangfud." The reader will perhaps recollect that the prophetic intimation, "The cormorant and the bittern shall possess it," was uttered concerning the country of Idumea, of which Petra was a chief town. On the other hand, many think that the bittern is really intended; and we shall hope to consider its claims when we are treating of the birds.-Miss. to the Jens.

THE LEOPARD.—This animal is mentioned seven times in the Old Testament and once in the New. Habakkuk, in chap. i. ver. 8, and Daniel, in chap. vii. ver. 6, allude to its swiftness, and the latter uses the leopard as an emblem of Alexander's rapid conquests. Jeremiah (v. 6) and Hosea (xiii. 7), refer to its insidious habits, and the former prophet renders its identity, if possible, even more clear, by mentioning its spots. That it once frequented the hilly ranges of Lebanon is evident from Cant. iv. 8, and that it will be found in Palestine during the millennium seems to be the teaching of Isa. xi. 6.

To this day the leopard is renowned for its swift-

ness in all countries in which it is found. In India, as well as in some other parts of the East, it is tamed, simply on account of that quality, for hunting; and, when so used, has been known to overtake the fastest deer—often after a very short run. One writer says: "When the cheetah (leopard) resolves to exert himself his velocity is astonishing; for although the antelope is esteemed the swiftest species of the deer, and the course generally begins at the distance of seventy or eighty yards, yet the game is usually caught, or else makes his escape, within the distance of three or four hundred yards, the cheetah seldom running a greater distance, and in that I have measured repeated strokes of seven or eight paces."—Orient. Mem., vol. i.

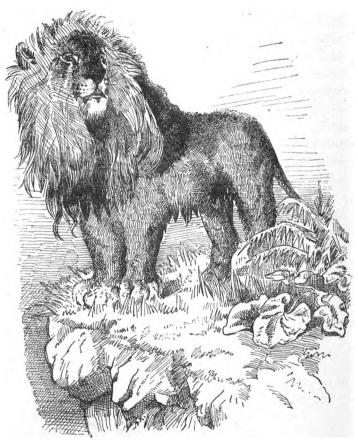
LEVIATHAN.—Bochart has almost conclusively shown that the crocodile is the true representative of the leviathan of Scripture. This opinion is now so universally entertained that it is needless to recapitulate his arguments. The description of the leviathan in the Book of Job exactly agrees with the accounts which writers give us of the crocodile. "It devours fishing tackle; two hooks were found in one, which it had swallowed. Its length is about twenty feet, its breadth five; it has the largest mouth of all monsters. It has nearly eighty strong sharp massy teeth; its voice is terrific—a loud, hollow growling, and it is furnished with a coat so scaly and callous as to resist the force of a musket-ball in every part except under the belly. Its voracity and strength are enormous, it is very fleet

in swimming, attacks mankind and the largest animals with the most daring impetuosity; nothing that it once seizes can escape, for, shaking its prev to pieces, it swallows it without mastication. So hard and impenetrable are the scales of the crocodile, that splinters of flint or sharp stones are the same to him as the softest reeds. When he dives to the bottom, the agitation of the water may be justly compared to liquor boiling in a caldron; and his body being strongly impregnated with the scent of musk, the water is affected by it to a considerable distance: by his rapid passage through the water he makes it white with foam-in Job's expressive language, 'one would think the deep to be hoary.' By his tail he causes the waves to sparkle like a train of light. There is no creature among terrestrial animals so thoroughly dangerous, so exceedingly strong, so difficult to be wounded or slain, and perhaps there is no creature so totally destitute of fear."-Treas. Bib.

LICE.—This word occurs in two passages in the Authorised Version, in both of which the reference is to the third plague of Egypt. "It is pretty generally believed that by the word used in the original, not lice but gnats are alluded to. The Septuagint, being a translation made in Egypt, is of weight on such a question, and that version gives 'mosquito gnats.'" A description of this insect will be found under the heading "Gnat."

THE LION.—It is almost needless to say that lions

were at one time very common in Palestine. The various Hebrew epithets for the lion are still preserved



SYRIAN LION.

in many towns of that country. Thus we have aryêh, the "lion," and the town Arieh (2 Kings xv. 25); we

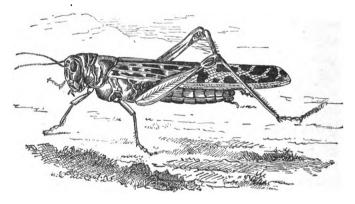
have laish, a poetic name for the lion, and the town Laish (Judges xviii. 7); we have labî, a lioness, and the town Labaoth (Josh. xv. 32). It is described in Scripture as having its lair in forests and tangled brushwood, among mountain caves and the canebrakes and reedy coverts of the Jordan; but it is found in those parts no longer. The strength, courage, and ferocity of the lion are all alluded to in the Word of God, and are too well known to need illustration; its terrible roar is likewise frequently referred to and perfectly described in more passages than one, while even the movements of its body—as when lying in wait for its prey, or crouching to make a spring-are depicted with a fidelity only to be found in a Book whose Author is God. It is believed that the Asiatic variety of lion, distinguished by a short curly mane, and a body shorter and rounder in shape than the well-known Barbary lion, is the lion of Palestine. method of catching the animal by pursuing it in large bands, amid loud shouts and other noises, and so driving it into a net or pit, is spoken of in Isaiah xxx. 4, and is still employed by the Arabs of to-day. lion was the symbol of strength and sovereignty, as in the human-headed figures of the Nimrod gateway, the symbols of Nergal, the Assyrian Mars and tutelary god of Babylon. In Egypt it was worshipped at the city of Leontopolis, as typical of Dom, the Egyptian Hercules."—S. Dict., vol. ii.; Tr. in B. and L.

THE LIZARD.—The word occurs only twice in the

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Authorised Version, and probably the fan-foot lizard (*Ptyodactylus Gecko*) is intended. This reptile is of a reddish-brown colour, with white spots, and exhales a poison from the *lobuli* of the toes which, on the human body, produces red pustules wherever the feet have touched. The lizard is mentioned with the unclean animals in Lev. xi. 30.—*Illus. Com.*, vol. i.

THE LOCUST.—This insect, whose terribly destructive powers are so well known, is mentioned several times in the Word of God, and there are nine or ten Hebrew words which are supposed to denote different varieties



LOCUST.

or species of the family. It is believed that the gob gobai of Nahum iii. 17, translated "great grass-hoppers" in our version, really refers to the locust in a certain stage of its growth, viz., before it is in a condition for flight; and, indeed, wherever else the grass-

hopper is mentioned, we are pretty safe in concluding that the locust is referred to in the original.

Of the travellers which we have consulted—namely, Barrow, Gadsby, Harmer, Hartley, Madden, Morier, Robinson, Rosenmuller, and Dr. Shaw-all agree in their testimony to the devastating powers of this most terrible of insects: but to quote from all would be impossible. We take, therefore, an account of the insect from the pen of Dr. Kitto, who seems to present in the fewest possible words the fullest description of its metamorphoses and habits. "The female locust." he says. "lavs her eggs in autumn. She makes choice of a light earth, under the shelter of a bush or hedge, where she deposits and carefully covers over an oblong substance of the shape of her own body, containing a great number of eggs. These are protected by their situation from the cold of winter, and are hatched early in the spring by the heat of the sun. Consequently, in the places which have been visited by the plague of locusts, the hedges and ridges swarm with the young ones about the middle of April. In this their larva state they differ from the perfect insect only in their colour, size, and in the absence of the wings and wingcases, and in the incapacities which hence arise. In other respects they enjoy the same faculties, except of reproduction, as in their ultimate condition. observation extends to the adolescent, or nympha condition, when the wings and wing-cases remain enclosed in covers.

"Their formal and wholesale ravages begin before

they are in a condition for flight, and are then indeed far more ruinous than those of the winged invaders. When they leave their native hedges, they march along, as it were in battalions, devouring every leaf and bud as they pass, and not sparing even the bark of trees. . . At last, when the sun has waxed warm, about the end of June, they acquire their perfect condition by the development of their wings, 'and flee away,' to inflict on other places the devastation to which they have reduced the place of their birth."—
Illus. Com., vol. iv,

THE MOLE.—Moles are mentioned in Isaiah ii. 20 (Authorised Version): "In that day a man shall cast his idols of silver, and his idols of gold . . . to the moles and to the bats:" but Kitto thinks that the Hebrew word denotes any hole or cave-digging animal. Others are of opinion that the word has a more specific meaning. The only other passage of the Authorised Version in which the mole is mentioned is Lev. xi. 30, but here again opinions vary as to the meaning of the word in the original. Some would translate it "salamander," others "a centipede," others "chameleon," and others "a kind of lizard." There are thus strong reasons for thinking that the mole is nowhere intended, and it is needless to encroach upon our space by describing it (see Chameleon) .- S. Dict., vol. ii.; and Illus. Com., vol. iv.

THE MOTH.—In all cases where this insect is mentioned in Scripture it is thought to be the Tinea pel-

lionella or clothes-moth, and in nine of the ten passages in which the word is found the destructive habits of the insect are referred to. The species above-named occurs in Asia Minor, and, according to Mr. H. T. Stainton (an authority in such matters), is pretty sure to be found in any old furniture warehouse at Jerusalem.

THE MOUSE. (See Coney.)

THE MULE.—Mules are not mentioned in Scripture till the time of David; a fact of some interest, as it was just at that period the Israelites were becoming acquainted with horses. The word rendered "mules" in Genesis xxxvi. 24 is translated "hot springs" by modern critics; and thus the passage reads: "This was that Anah that found the hot springs in the wilderness, as he fed the asses of Zibeon his father."—S. Dict., vol. ii.; and Var. Bib.

THE PALMER-WORM.—In the opinion of Dr. Kitto, this insect is a caterpillar known to the Romans under the name eruca. "Plautus, an old Latin poet, speaks of it as a mischievous beast that rolls itself up in a vine leaf. It does not fly, like the locust, from plant to plant, or run hither and thither like some other insects, and leave them half eaten, but continues upon the perishing herbage till by its sluggish motion and lazy jaws it has devoured the whole."—Illus. Com., vol. iv.

THE PORCUPINE. (See Kangfud.)

THE PYGARG. (See Antelope.)

THE ROE and ROEBUCK. (See Antelope.)

THE SCORPION.—This pugnacious little animal is twice mentioned in the Old Testament, and four times "The wilderness of Sinai is especially in the New. alluded to as being inhabited by scorpions at the time of the exodus (Deut. viii. 15); and to this day these animals are common in the same district, as well as in



some parts of Palestine." Laborde. who travelled through the wilderness of the wanderings, speaks of finding one morning a large yellow scorpion, three inches long, under the carpet which had formed his bed, and was then informed by the Arabs that the animal abounded in those parts. Irby and Mangles succeeded in killing one that was four inches in length; and one of these gentlemen elsewhere observes: "My companions' jokes were sometimes rather rough; on one occasion an Arab put a living scorpion inside

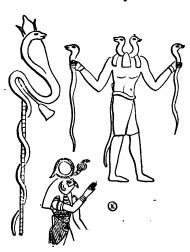
my jacket." "Scorpions are generally found in dry and in dark places, under stones and in ruins, chiefly in warm climates. They are carnivorous in their habits, and move along in a threatening attitude with the tail elevated. The sting, which is situated at the extremity of the tail, has at its base a gland that secretes a poisonous fluid, which is discharged into the wound by two minute orifices at its extremity. In hot climates the sting often occasions much suffering, and sometimes alarming symptoms." "The animal is considered as belonging to the family of spiders, both in conformation and in habits." In Rev. ix. 3 and 10 the locusts which came up out of the bottomless pit are said to have had "tails like unto scorpions," and the pain resulting from their sting is mentioned in verse 5.

—Jour. through Arabia, &c.; Trav. in E. and H. L.; Illus. Com., vol. v.; S. Dict., vol. iii.

THE SERPENT.—We have already had occasion to speak of several kinds of serpents referred to in the Word of God (see Adder, Asp, and Cockatrice), but we have as yet said nothing of the nachash and eph'eh, translated respectively by "serpent" and "viper" in our version. The former word, which is the generic name of any serpent, occurs frequently in the Old Testament. Its subtlety is mentioned; its wisdom; its poisonous properties; its sharp tongue and venomous bite; its habits of concealment in holes of walls and hedges; its dwelling in dry sandy places. "The way of a serpent upon a rock" was one of the things which were too wonderful for Agur. Isaiah alludes to the oviparous nature of most of the order; and, lastly, David, Solomon, Jeremiah, and perhaps the Apostle James, mention the art of serpent-taming (Gen. iii, I: Matt. x. 16; Ps. lviii. 4; Job xx. 16; Eccles. x. 8, 11; Amos v. 19; Deut. viii. 15; Prov. xxx. 19;

Isa. lix. 5; Ps. lviii. 5; Jer. viii. 17; James iii. 7; &c., &c.).

Of all the forms of idolatry which the world has produced, none perhaps is more suggestive than the worship of the serpent. It is deeply interesting to notice how prevalent and wide-spread this serpent-worship formerly was; nor is it less interesting to observe that, even in those countries where it was not so reverenced, it had its place, and "was used as an emblem of the evil principle, of the spirit of disobedience and contumacy." The Phœnicians adored the



SERPENT-WORSHIP.

animal; the Chinese used it as the symbol of wisdom and power, and gave serpents' bodies to the kings of heaven (this they still do); the Egyptians represented the eternal spirit Kneph under the form of the serpent, and worshipped it with its body erect; it was the attribute of Ceres, Mercury, and Esculapius in their

most beneficent qualities among the Greeks; and the Indians, Africans, and Americans all more or less reverence it at the present day. How true are the apostle's words, "They changed the glory of the in-

corruptible God into an image made like to corruptible man, and to birds, and to four-footed things and creeping things"! (Rom. i. 23).

The fiery serpents which bit the children of Israel were not, as some suppose, the flying or tree-serpents of the East. The Word of God says nothing about flying, and besides, the flying-serpent (so-called) is a stingless, harmless reptile. Perhaps the serpent in question was somewhat of the kind described by Niebuhr, a small, slender creature, spotted black and white, whose bite is instantaneously fatal (see Adder). The "fiery flying-serpent" of Isa. xiv. 23 and xxx. 6, erroneously identified with the fiery serpent of Num. xxi. 6 and 8 by some writers, was probably some species of flying lizard.

The second word, eph'eh, translated "viper" in the Authorised Version, is derived from a root which signifies "to hiss," but there are no means of ascertaining what species of serpent is intended. "The snake that fastened on St. Paul's hand when he was at Melita (Acts xxviii. 3) was probably the common viper of this country (Pelius berus), which is widely distributed throughout Europe and the islands of the Mediterranean, or else the Vipera aspis, a not uncommon species on the coasts of the same sea."—S. Dict., vol. iii.; and Bib. Treas., vol. ii.

SHEEP. (See Flocks and Herds, p. 117.)

THE SNAIL.—The word occurs twice in the Authorised Version, being represented by two different words in

the Hebrew. In Leviticus xi. 30 we have chômet, which has been variously rendered "lizard," "chameleon," and "snail." Kitto observes, the word "in Chaldee signifies to bow down; it therefore suggests the Lacerta stellis, which is noted for bowing its head insomuch that the followers of Mohammed kill it, because they say it mimics them in the mode of repeating their prayers. It is about a foot in length, and of an olive colour shaded with black." In Psalm lviii. 9 the word is shablûl, and many able critics think that it has been rightly rendered "snail" in our version. The word in Chaldee signifies "a snail" or "slug."—Illus. Com., vol. v.; S. Dict., vol. iii.

THE SPIDER.—In two out of the three passages in which the spider is mentioned in our version, the original word is doubtless correctly so rendered, but in Prov. xxx. 28 a species of lizard is most probably indicated. In the passages which unquestionably refer to the spider, the fragility of its web is alluded to, and, perhaps, its habit of lurking for its prey (Job viii. 14; Isa. lix. 5).

Swine.—As is well known, the flesh of swine was forbidden as food by the Levitical law, and we may judge of the abhorrence which the Jews had for it as a nation by the passage in Isa. lxv. 4, where some of the idolatrous people are represented as "eating swine's flesh" and "broth of abominable things." In the Apocrypha we read of an aged scribe who chose to endure torments and death rather than pollute his



mouth with swine's-flesh. The infidel cavil about the destruction of the herd of swine, recorded in Matt. viii. 32 and Mark v. 13, has been ably dealt with by Mr. Houghton. "Mr. Trench well observes," he says, "that 'a man is of more value than many swine': besides which it must be remembered that it is not necessary to suppose that our Lord sent the devils into the swine. . . . He merely permitted them to go; and if these Gadarene villagers were Jews and owned the swine, they were rightly punished by the loss of that which they ought not to have had at all." The swine of Scripture seem to have been simply the domesticated "boar" (see Boar).—S. Dict., vol. iii.

The Tortoise.—The Hebrew word is tsab, and signifies "a swelling;" for which reason Kitto thinks that the stellio spinipes may be intended; a lizard of a beautiful green, which has a swollen body. It is found in the deserts of Egypt. Mr. Houghton suggests another species, the monitor terrestris of Cuvier, a lizard whose head, body, and tail are covered with numerous small scales. The Arabs call it the "landwaran," to distinguish it from another species which belongs to the water. It is found in the deserts of Palestine and North Africa. The tsab was one of the unclean animals forbidden to the Jews as food (Lev. xi. 29).—Illus. Com.; S. Dict., vol. iii.; Ani. King.

THE UNICORN.—The Hebrew words reem, reeym, and reym, which have been rendered "unicorn" in

our version, are thought to denote a species of wildox, though some have argued for the rhinoceros.
We believe, however, that the latter idea has been
set aside of late years, scholars having pointed out
that Deut. xxxii. 17 (as read in the original) plainly
shows that the animal has more horns than one, and
therefore cannot answer to the rhinoceros. The word
reem—translated "unicorns" in our version—is really
in the singular, and should therefore have been rendered by a singular noun; but then that would have
committed the translators to an absurdity, for the
passage would have run, "His horns are like the horns
of the unicorn;" and unicorn means one-horned.

But before considering the claims of any other animal, it would be well to note the allusions to the Rěêm which the sacred pages contain. strength "is mentioned in Numbers xxiii. 22 and Job xxxix. II: his having two horns in Deut. xxxiii. 17: his fierce nature in Ps. xxii, 21: his indomitable disposition in Job xxxix. 9-11; the active and playful habits of the young animal are alluded to in Psalm xxix. 6; while in Isaiah xxxiv. 6, 7, where Jehovah is said to be preparing 'a sacrifice in Bozrah,' it is added, 'the Rěêmîm shall come down, and the bullocks with the bulls.' . . . Considering, therefore, that the Rělm is spoken of as a two-horned animal of great strength and ferocity, that it was evidently well known and often seen by the Jews, that it is mentioned as an animal fit for sacrificial purposes, and that it is frequently associated with bulls and oxen,

we think there can be no doubt that some species of wild-ox is intended." Here, however, reasoning must come to an end, for when we begin to ask, "What species?" we enter upon the uncertain and unprofitable ground of speculation.—S. Dict., vol. iii.

THE VIPER. (See Serpent.)

The Weasel.—This animal is mentioned but once in Scripture, namely, in Leviticus xi. 29, among the unclean animals. There seems no reason to doubt that the weasel is really intended, though some have argued for the "mole." "The word," says Kitto, "as used in the Syriac, implies a creeping insidious movement, and may therefore suit the weasel." It is a small, slender animal, which lives on birds and mice, tracing its prey by scent, and killing it by inflicting a wound in the neck. It is an excellent swimmer; and, when alarmed, diffuses a fetid stench. The female is commonly much smaller than the male.

—S. Dict., vol. iii.; Illus. Com., vol. i.; Ani. King.

THE WHALE. '(See Dragon.)

THE WILD-ASS. (See Ass.)

THE WILD-GOAT.—The name of this animal occurs four times in the Authorised Version, and of these three are doubtless correct. There is a species of wild-goat—a variety of the capra mambrica—which abounds in the rock-country of Syria and other parts, and this may be the wild-goat of Scripture. Some

writers, indeed, have traced a connection between mambrica and Mamre, there being some mountains of the latter name in Southern Palestine, which they would associate with that genus of goats. The word rendered "wild-goat" in Deut. xiv. 5, has been translated "gazelle" by some critics, and by others "goat-deer."

THE WOLF.—Though Eastern wolves were doubtless far more common in Biblical times than they are now, they are still occasionally seen by travellers. wolf," says Dr. Russell, "seldom ventures so near the city as the fox, but is sometimes seen at a distance by the sportsman among the hilly grounds in the neighbourhood; and the villages as well as the herds often suffer from them. It is called Deeb in Arabic, and is common all over Syria." Among the Scriptural allusions to the animal we find mention of its ferocity, its nocturnal habits, and its attacks on sheep and lambs; while it is also used figuratively to denote persons of a cruel, crafty, or persecuting spirit (see Gen. xlix. 27; John x. 12; Jer. v. 6; Matt. x. 16; Acts xx. 29, &c.). The peaceful reign of the Messiah is beautifully foretold in the verse, "The wolf and the lamb shall feed together, and the lion shall eat straw like the bullock: and dust shall be the serpent's meat. shall not hurt nor destroy in all My holy mountain, saith the Lord" (Isa. lxv. 25).—S. Dict., vol. iii.

CHAPTER VII.

3) THE ANIMAL CREATION (continued)—BIRDS.

Bittern—Cock—Cormorant—Crane—Cuckoo—Dove—Eagle—Giereagle—Glede—Great-owl (see Owl)—Hawk—Heron—Kite—Lapwing—Little-owl (see Owl)—Night-hawk—Osprey—Ossifrage—Ostrich—Owl—Partridge—Peacock—Pelican—Pigeon (see Dove)—Quail—Rayen—Screech-owl (see Owl)—Sparrow—Stork—Swallow—Swan—Vulture.

THE abundance of birds in the East to-day is often alluded to in the works of travellers; and the numerous references to birds of many kinds in the Word of God are a sufficient indication that they were plentiful in ancient times. Birds and their eggs are mentioned as articles of food in Deut. xiv. II and 20, Job vi. 6, &c., and there is a plain intimation in Matthew xxiii. 37 that the domestic fowl was not unknown in Palestine in the time of our Lord. The art of snaring wild birds is referred to in several passages of the Old Testament (Ps. cxxiv. 7; Prov. i. 17; vii. 23; Amos iii. 5, &c.); and a cage full of birds is mentioned in Jeremiah v. 27. "In Deut. xxii. 6 it is commanded that an Israelite finding a bird's nest in his path might take the young or the eggs, but must let the hen-bird go. By this means the extirpation of any species was guarded against. . . . Birds were

not ordinarily used as victims in the Jewish sacrifices. They were not deemed valuable enough for that purpose; but the substitution of turtle-doves and pigeons was permitted to the poor, and in the sacrifice for purification." Birds of song are mentioned in Psalm civ. 12, and Eccles. xii. 4; and the migration of birds in Jeremiah viii. 7.

Of the birds mentioned by name in the Bible—or, rather, in the Authorised Version of the Bible—we have first the *Bittern*.

THE BITTERN.—Whether this animal is really referred to in the Word of God is somewhat doubtful. Gesenius contends that the hedgehog or porcupine is intended, and defends his translation on etymological grounds; but the context of the passages in which the word occurs seems rather to require an aquatic bird than a quadruped. Kitto is of this opinion; and so also, apparently, is the writer of the article in Smith's Dictionary. The bittern is one of the family of herons, and is a solitary bird inhabiting swamps and reedy marshes. It hides itself during the day, and comes forth at night to seek for food. All the allusions to the animal in the Word of God are in connection with the desolations of Babylon, Idumea, and Nineveh (Isa. xiv. 23, xxxiv. 11; and Zeph. ii. 14).—S. Dict., vol. i., and Illus. Com., vol. iv.

THE COCK.—This well-known domestic bird needs no description. It is only mentioned in connection with Peter's denial of Christ; but there is also a

reference to cock-crowing in the familiar passage, "Watch ye, therefore; for ye know not when the master of the house cometh, at even, or at midnight, or at the cock-crowing, or in the morning" (Mark "It has been often remarked," says Mr. xiii. 35). Arundel, "that in the Eastern countries the cocks crow in the night; but the regularity with which they keep what may be called the watches has not been, perhaps, sufficiently noticed. I will, however, confine myself to one, and that is between eleven and twelve o'clock. I have often heard the cocks of Smyrna crowing in full chorus at that time, and with scarcely the variation of a minute. The second cockcrowing is between one and two o'clock. Therefore when our Lord says, 'In this night, before the cock crow twice, the allusion was clearly to these seasons. In fact, this was altogether so novel to me at my first arrival in Smyrna, that I could calculate the hours of the night with as much precision by what I termed my alectrometer as by my watch." (Mark xiv. 30.)-Discoveries in Asia Minor.

THE CORMORANT—There are two words in the Hebrew text translated *cormorant*; one occurs in the catalogue of unclean birds in Lev. xi. 17 and Deut. xiv. 17, and is doubtless correctly rendered thus; the other occurs in Isa. xxxiv. 11 and Zeph. ii. 14, and should be translated "pelican"—the word given in the margin. The cormorant lives upon fish, and is an excellent diver; its long, straight, compressed bill,

with the upper mandible hooked at the point, enables it to confine the prey with great security. The original word, signifying "to throw," or "dart," "to cast down," perhaps has some reference to the habits of the cormorant in catching its prey (see *Pelican*).—S. Dict., vol. i.; Illus. Com., vol. i.

THE CRANE.—The name of this bird occurs twice in the Authorised Version, viz., in Isa. xxxviii. 14 and Jer. viii. 7, where the swallow is doubtless intended (see Swallow).

THE CUCKOW.—This is another of the erroneous translations of the Authorised Version. Critics and commentators seem agreed that some of the lesser kinds of sea-fowls are denoted by the Hebrew word (shachaph), and, most probably, the family of terns. "The terns are slender birds, and resemble, with their long wings and forked tail, the common swallow; whence they are called in French and English 'seaswallows.'" Gesenius thinks the "sea-gull" is intended; Bochart, a sea-bird of the petrel kind; and Dr. Shaw, the saf-saf. The bird in question is included in the list of unclean birds in Lev. xi. 16 and Deut. xiv. 15.—Illus. Com., vol. i.; S. Dict., vol. i.

THE DOVE.—The dove is first mentioned in Genesis viii. 9, where we read of its leaving the ark as Noah's second messenger to see if the waters had abated. The other numerous references to it throughout the Bible indicate its character and uses, and show that

doves must have been plentiful in ancient times. We have notices of their plumage, their rapid flight, their mournful note, their harmlessness and simplicity, their love, their places of habitation (Ps. lv. 6; Ps. lxviii. 13: Cant. i. 15. ii. 14: Isa. xxxviii. 14. lix. 11: Jer. xlviii. 28; Ezek. vii. 16; Hos. vii. 11: Matt. x. 6, &c.). Then we have repeated mention of their uses for sacrificial purposes from Genesis xv. onwards. Under the Mosaic law, a pair of turtle-doves or young pigeons (i.e., doves) were permitted as the offering of the poor, who could not afford anything more costly. It was in accordance with this provision that the mother of our Lord made the offering for her purification (Luke ii. 24); and perhaps the doves which were offered for sale in the Temple in the time of our Saviour were intended for such purposes.

The works of modern travellers in the East offer us some interesting illustrations of many Biblical references to the dove. One writer, in the course of a description of the houses in Cairo, says, "The roofs are usually in a great state of litter, and were it not that Hasna, the seller of geeleh, gets a palm-branch and makes a clearance once in a while, her roof would assuredly give way under the accumulation of rubbish. One thing never seemed cleared away, however, and that was the heaps of old broken pitchers, sherds, and pots, that in these and similar houses are piled up in some corner; and there is a curious observation in connection with this. A little before sunset numbers of pigeons suddenly emerge from behind the pitchers

and other rubbish, where they have been sleeping in the heat of the day or pecking about to find food. They dart upwards and career through the air in large circles, their outspread wings catching the bright glow of the sun's slanting rays, so that they resemble shining 'yellow gold;' then, as they wheel round and are seen against the light, they appear as if turned into molten silver, most of them being pure white, or else very light-coloured. This may seem fanciful, but the effect of light in these regions is difficult to describe to those who have not seen it: and evening after evening we watched the circling flight of the doves, and always observed the same appearance. 'Though ye have lien among the pots, yet shall ye be as the wings of a dove covered with silver, and her feathers with yellow gold'" (Ps. lxviii. 13).

Mr. Morier speaks of the extraordinary flights of pigeons, which he has seen alight upon the dwelling-houses in Ispahan (in Persia), and finds therein an illustration of the passage in Isaiah, "Who are these that fly as a cloud, and as the doves to their windows?" (lx. 8). "Their great numbers, and the compactness of their mass, literally look like a cloud at a distance, and obscure the sun in their passage." Another writer, with his mind on John ii. 16, observes, "We read that eighteen centuries ago our Saviour went up to Jerusalem, and found in the Temple those that sold oxen and sheep and doves, and the changers of money sitting. So in the court of (the mosque) Meshed Ali

a constant fair is carried on at stalls, which are supplied with every article likely, as offerings, to attract the eye of the rich or pious. Among these, white doves are particularly conspicuous."—R. Life in E.; M. Sec. Jour. through Persia; Trav. in Chaldea.

THE EAGLE.—The "eagle" of the Authorised Version is probably the golden eagle in Leviticus xi. 13 and Deut. xiv. 12, where it is distinguished from the ossifrage, osprey, vulture, and gier-eagle; but in most other passages the term is generic, and includes many different species of the diurnal birds of prey. swiftness of their flight, their strength, the lofty situations of their nests, their solicitude for their young, and their moulting, are all alluded to in the sacred page; and eagles are mentioned symbolically in Dan. vii. 4; Ezek. i. 10, xvii. 3; Rev. iv. 7 and xii. 14. "The eagle was an Assyrian emblem, and hence, probably, the reference in Hab. i. 8, 'They' (the Chaldeans) 'shall fly as the eagle that hasteth to eat.' The eagleheaded deity of the Assyrian sculptures is that of the god Nishroch; and in the representations of battles, trained birds of this order are frequently shown accompanying the Assyrian warriors in their attacks, and in one case bearing off the entrails of the slain. From the Assyrians the use of the eagle as a standard descended to the Persians, and from them probably to the Romans."

The beautiful passage in Deut. xxxii. (ver. 11), "As an eagle stirreth up her nest, fluttereth over her

young, spreadeth abroad her wings, taketh them, beareth them on her wings," finds a striking illustration in the statement of Sir Humphrey Davy that, during a visit to Killarney, he was sitting on an eminence facing the Eagle's Cliff, and saw two parent birds fly from their nest, each carrying a young one on its back. "They wheeled round and round in circles for some time, and then gently threw off the young ones for a little practice in flying. Soon afterwards they placed themselves under the young birds, and, receiving them on their backs, flew about with them as before, again and again repeating the lesson."

One of the four things that were too wonderful for Agur, the son of Jakeh, was "the way of an eagle in the air" (Prov. xxx. 18, 19); and writers in modern times have not failed to notice the marvels of its "Great as are the distances which these birds sometimes fly, it becomes comprehensible when we know that an eagle, as he sweeps freely through the air, traverses a space of sixty feet in a second of time. To be able thus rapidly to move along is undoubtedly an attribute of power; but there is something far more imposing, far more majestic, in that calm onward motion when, with wings outspread and quite still, the mighty bird floats buoyantly in the atmosphere, upheld and borne along by the act of mere The length of time he can thus remain suspended without a single beat of his broad, shadowy pinions, is still an inexplicable fact. He will sail forward in a perfectly horizontal direction for a dis-

tance of more than a mile, without the slightest quiver of a feather giving sign that the wings are moved. Not less extraordinary is the power the bird possesses of arresting himself instantaneously at a certain spot, in dropping through the air, with folded wings, from a height of three or four thousand feet. When circling so high up that he shows but as a dot, he will suddenly close both wings, and, falling like an aërolite, pass through the intervening space in a few seconds of time. With a burst his broad pinions are again unfolded, his downward progress is arrested, and he sweeps away horizontally, smoothly and without effort. He has been seen to do this when carrying a sheep of twenty pounds weight in his talons, and from so giddy a height that both the eagle and his booty were not larger than a sparrow. It was directly over a wall of rock in which the eyrie was built; and while the speck in the clouds was being examined, and doubts entertained as to the possibility of its being the eagle, down he came headlong, every instant increasing in size, when, in passing the precipice, out flew his mighty wings, the sheep was flung into the nest, and on the magnificent creature moved, calmly and unflurried, as a bark sails gently down the stream of a river."—S. Dict., vol. i.; Scrip. N. H.; Bib. Treas., vol. v.

THE GIER-EAGLE.—Commentators are not agreed as to the kind of bird denoted by the word in the original. Gesenius thinks that a small species of vul-

ture is intended (the vultur percnopterus of Linnæus); a white bird with black wings, which feeds on carrion. Boothroyd and Dr. Taylor give kingfisher; the Septuagint and Dr. Kitto the swan. The latter authority observes that the signification of the Hebrew word "obviously points out some bird which is noted for its attachment to its young. This applies very well to the swan (cygnus olor), which, notwithstanding its meek and inoffensive disposition, will, in defence of its young, give battle to the larger animals, and even to man himself." The bird in question is mentioned among the unclean birds in Leviticus xi. A representation of the vultur percnopterus, mentioned above, will be found under the heading Vulture.—Var. Bib.; S. Dict., vol. i.; Illus. Com., vol. i.

THE GLEDE.—Glede is the old name for the common kite, and doubtless some bird of that kind is intended by the Hebrew name (Deut. xiv. 13), which contains an allusion to the bird's acuteness of vision. Kitto thinks that the particular species intended is the white neophron (vultur percnopterus of Linnæus—see above). This bird is more minutely described by Cuvier as "little larger than a raven; the adult male white, with black quill feathers; the female and young brown. It follows the caravans in the desert, to devour all that dies." Kitto adds that the naked skin of the face and throat of this bird is a livid yellow.—Ani. King.; Illus. Com., vol. i.

THE GREAT OWL. (See Owl.)

THE HAWK.—This is another of the unclean birds mentioned in Lev. xi. and Deut. xiv. The Hebrew term (netz) is expressive of strong and rapid flight, a quality for which the hawk is particularly noted. Kitto observes that the common sparrow-hawk may be the species intended, as it is spread over the old continent, and has long been noted for the quality above-named. It is a bird of a grey colour with white breast, and represents one of the smallest varieties of the hawk tribe. It was formerly much used in falconry. Job xxxix. 26 appears to contain a reference to the migratory habits of the bird, "Doth the hawk fly by thy wisdom, and stretch her wings towards the south?"—Ani. King.; Illus. Com., vol. i.

THE HERON.—The Hebrew word is anaphah, and occurs in Lev. xi. 19 and Deut. xiv. 18 as the name of an unclean bird. The Rev. Latham Bevan observes that "it is quite uncertain what bird is intended; the only point on which any two commentators agree is that it is not the heron, for many suppose the preceding word, translated in the Authorised Version 'stork,' to apply in reality to the heron." Kitto, however, seems in favour of the heron, and observes that he has "no desire to disturb the common reading, which has as much and as little probability as any other." The root "anaph" signifies "to snort in anger;" and Ælian reports of the heron (which the ancient Egyptians used to tame) that "they so well understood the human voice as to become exceedingly

angry when any person abused them or charged them with laziness." This fact would seem to offer an argument in support of the common translation. The learned editor of Calmet is of the same opinion. The heron "is allied to the stork, and, like it, feeds on fish and reptiles, and is noted for its voracious appetite."—Illus. Com., vol. i.; S. Dict., vol. i.; C. Dict.

THE KITE.—The Hebrew word "ayyâh" is twice translated "kite" in the Authorised Version (Lev. xi. 14 and Deut. xiv. 13) and once "vulture" (Job xxviii. 7); and perhaps the former word is right. Yet there has been much difference of opinion on the subject, some commentators giving kite, some vulture, and others night-owl. Aben Ezra is in favour of "island bird," and Bochard argues for the merlin. Kitto, without noticing the controversy on the subject, asserts that the griffon-vulture (vultur fulvis) is "This is a splendid bird," he writes, intended. "diffused over the south of Europe, Turkey, Persia, and Africa. It feeds on putrid flesh, like the rest of the family; and makes its nest in the clefts of the rock, from whence it can survey the distant plains and mark the fallen prey. In length it is about three feet six inches, with an expanse of wings reaching to eight or nine. The colour of the full-grown bird is a deep rufous grey, becoming black on the quill-feathers and tail. The head and neck are not entirely bare, but are covered with a short, close down, and the beautiful ruff is of a pure white. Travellers, astonished at the extraordinary distance from which these birds can descry a carcass, have debated whether they were guided by sight or by scent; but the beautiful and picturesque accuracy of the Book of Job, on many points of natural history, seems here to afford us its high authority in ascribing it to the eye."

—Illus. Com., vol. iii.; S. Dict., vol. ii.

THE LAPWING.—The Hebrew word is dukîphath, and commentators are generally agreed that the "hoopoe" is the bird intended. This bird was well known to the ancients, and is frequently mentioned by the writers of antiquity. It is about the size of a missel-thrush, with fawn-coloured plumage, barred with black and white on the wings and lower parts of the back. Its tall crest of feathers, which is very elegant, is also touched with black. It was one of the unclean birds forbidden as an article of diet to the Jews, and is only mentioned in that connection (Lev. xi. 19; Deut. xiv. 18).—Illus. Com., vol. i.; S. Dict., vol ii.

THE LITTLE OWL. (See Owl.)

THE NIGHT-HAWK.—The word in the original (tachmas) has been variously rendered by commentators, and while some have found its representative in so large a bird as the ostrich, others have found it in the diminutive sparrow. But most probably a species of owl is intended, of ravenous and predatory habits, such habits being signified by the Hebrew

word. Hasselquist mentions a bird that would well answer these requirements. It is found in Syria, is of the size of a common owl, and very ravenous. In the evenings, if the windows are left open, it will fly into the house and attack infants, unless carefully watched; on which account the women are much afraid of it. This is another of the unclean birds of Lev. xi. and Deut. xiv.; nor is it elsewhere referred to in the Bible.—Illus. Com., vol. i.; S. Dict., vol. ii.

THE OSPREY.—Though some have argued that the black eagle is intended by the original, the arguments are equally as strong in favour of the osprey. It is a bird of a rich glossy brown on the upper parts of its body and white underneath, which in some places nidificates in large societies. It feeds on fish, which it seizes by darting down upon them with incredible velocity. The only mention of the bird occurs in Lev. xi. and Deut. xiv.—Illus. Com., vol. i.; Ani. King.

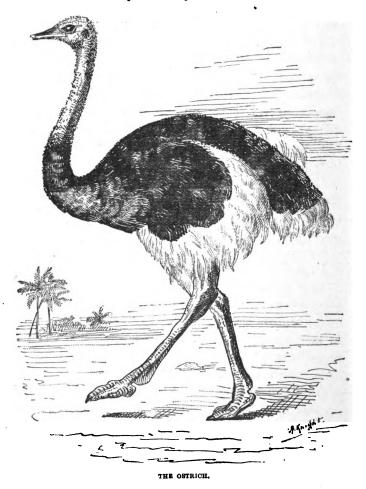
THE OSSIFRAGE.—The word in the original is peres, which means "the breaker," and the word "ossifrage" means bone-breaker; so that something, at least, may be said in favour of this translation. "Not only does the ossifrage push kids and lambs, and even men, off the rocks, but he takes the bones of animals, which other birds have denuded of the flesh, high up into the air, and lets them fall upon a stone in order to crack them and render them more digestible even for his enormous powers of deglutination." The ossifrage

is another of the unclean birds of Lev. xi. and Deut. xiv.—S. Dict., vol. ii.

THE OSTRICH.—This curious and interesting bird is frequently mentioned in the Word of God. It is represented by three Hebrew terms, bath haya' anah, ye' enîm, and renanûm, the first of which has been erroneously translated "owl" in Lev. xi. 16, Deut. xiv. 15, Job xxx. 29, Isa. xxxiv. 13, and xliii. 20. The third word, renanûm, which occurs but once (Job xxxix. 13), has also been wrongly translated, and there we have peacocks instead of ostriches. The remaining word (ye' ênîm) occurs in Lamentations iv. 3, where it is clear from the passage that the ostrich is intended: "The daughter of my people is become cruel like the ostriches in the wilderness."

Dr. Shaw's well-known volume of "Travels" affords us some striking illustrations of more than one Biblical reference to the ostrich; and in giving his account of the bird we have inserted the Scriptures illustrated in their appropriate places. "When the bird is full grown," he writes, "the neck, particularly of the male, which before was almost naked, is now very beautifully covered with red feathers. The plumage likewise upon the shoulders, the back, and some parts of the wings, from being hitherto of a dark greyish colour, becomes now as black as jet; whilst the rest of the feathers retain an exquisite whiteness. . . .

"When these birds are surprised, by coming suddenly upon them whilst they are feeding in some valley, or behind some rocky or sandy eminence in the deserts,



they will not stay to be curiously viewed and examined.

Neither are the Arabs ever dexterous enough to overtake them, even when they are mounted on their best They, when they raise themselves up for flight, laugh at the horse and his rider. time she lifteth up herself on high, she scorneth the horse and his rider'-Job xxxix. 18.) . . . I have been informed that the ostrich lavs from thirty to fifty eggs. The first egg is deposited in the centre. the rest are placed as conveniently as possible round In this manner it is said to lay, deposit, or . trust her eggs in the earth, and to warm them in the sand, and forgetteth (as they are not placed like those of some other birds, upon trees, or in the clefts of rocks) that the foot of the traveller may crush them, or that the wild beast may break them ('which leaveth her eggs in the earth, and warmeth them in dust, and forgetteth that the foot may crush them, or that the wild beast may break them '-Job xxxix. 14, 15). . . . Upon the least distant noise, or trivial occasion, she forsakes her eggs or her young ones, to which, perhaps, she never returns; or, if she does, it may be too late either to restore life to the one or to preserve the lives of the other. ('She is hardened against her young ones, as though they were not hers, her labour is in vain, without fear' -Job xxxix. 16.) Agreeably to this account, the Arabs meet sometimes with whole nests of these eggs undisturbed, some of which are sweet and good, others are addled and corrupted; others, again, have their young ones of different growths, according to the

time, it may be presumed, they have been forsaken by the dam. They oftener meet a few of the little ones, no bigger than well-grown pullets, half-starved, straggling and moaning about, like so many distressed orphans, for their mother. And in this manner the ostrich may be said to be hardened against her young ones, as though they were not hers; her labour (in hatching and attending them so far) being in vain, without fear or the least concern of what becomes of them afterwards. 'The daughter of my people,' says the prophet, 'is cruel, like the ostriches in the wilderness' (Lam. iv. 3).

"Neither is this the only reproach that may be due to the ostrich: she is likewise inconsiderate and foolish in her private capacity, particularly in the choice of food, which is frequently highly detrimental and pernicious; for she swallows everything greedily and indiscriminately, whether it be rags, leather, wood, stone, or iron. When I was at Oran, I saw one of these birds swallow, without any seeming uneasiness or inconvenience, several leaden bullets, as they were thrown upon the floor, scorching hot from the mould. ('God hath deprived her of wisdom, neither hath He imparted to her understanding'-Job xxxix. 18.)" Speaking of some tame ostriches, the Doctor adds, "I have often heard them groan, as if they were in the greatest agonies; an action beautifully alluded to by the prophet Micah (i. 8), where it is said, 'I will make a mourning like the owls' (or rather ostrich)."-Trav. in B. and H.

THE OWL.—There are five terms or words in the Hebrew which are translated by one or another of the following names, "owl," "little owl," "great owl," and "screech owl," and they are these; bath hayá anah, zanshûph, côs, kippôz, and lîlîth. It is generally agreed that the first of these denotes the ostrich, a description of which has been already given; the second (zanshûph) is by some supposed to denote the owl, and by others the ibis; one writer suggests the night-heron; the third word (côs) is probably rightly translated owl, and one of the horned species may be intended. Mr. Tristram observes that the Egyptian horned owl (Otus ascalaphus) "swarms among the ruins of Thebes, and that he was informed it is also abundant at Petra and Baalbec; it is the great owl of all Eastern ruins, and may well therefore be the 'cos' of ruined places." The fourth word (kippôz) has been translated in twenty different ways by critics and commentators; and the writer of the article in Smith's Dictionary observes that "it is a hopeless affair to attempt to identify the animal denoted by this word." The speculations of the learned carry us from hedgehogs to tree-serpents! The fifth word (lîlîth) is rendered by "screech-owl" in the text of Isaiah xxxiv. 14, and there seems to be some reason for thinking that this night-bird is intended. The lîlîth is mentioned as inhabiting the ruins of Idumea (Petra), and the screech-owl (strix flammea) is not only found in Bible lands, but is well known as a frequent inhabiter of ruined places. Irby and Mangles, in their description of Petra, remark, "The screaming of eagles, hawks, and owls, which were soaring above our heads in considerable numbers, seemingly annoyed at any one approaching their lonely habitation, added much to



BARN OWL (Strix flammea).

the singularity of the scene." The barn-owl (strix flammea), of which we give an illustration, is also very common in the East.

For the convenience of the reader we subjoin a dis-

criminative list of the passages in which the various Hebrew words occur:—

- (1) Bath hayá anáh, Lev. xi. 16; Deut. xiv. 15; Job xxx. 29; Isa. xxxiv. 13 and xliii. 20.
- (2) Zanshûph, Lev. xi. 17; Deut. xiv. 16; and Isa. xxxiv. 11.
- (3) Côs, Lev. xi. 17; Deut. xiv. 17; and Psalm cii. 6.
 - (4) Kippoz, Isa. xxxiv. 15.
 - (5) Lîlîth, Isa. xxxiv. 14.

THE PARTRIDGE.—The Hebrew kôrê is doubtless rightly translated "partridge" in our version, as the word signifies literally "the caller;" a name that might be given with all propriety to the cock-bird, which is noted for its loud call. It occurs but twice in the Scriptures; first in Sam. xxvi. 20, where David compares himself to a hunted kôrê upon the mountains; and in the second place in Jer. xvii. 11, where it is said, "As a korê sitteth on eggs, and hatcheth them not; so he that getteth riches and not by right, shall leave them in the midst of his days, and at his end shall be a fool."

The former Scripture is thus illustrated by Harmer: "The Arabs have the following method of catching partridges. Observing that they become languid and fatigued after they have been hastily put up twice or thrice, they immediately run in upon them, and knock them down with their bludgeons. It was precisely in this manner Saul hunted David; coming hastily upon

him, and putting him up from time to time, in hopes he should at length, by frequent repetitions of it, be able to destroy him."

The other passage is illustrated by Dr. Shaw. There is a species of this bird, the baratavella or Greek partridge, which is said to sit upon the eggs of strangers for want of its own, and Dr. Shaw argues that if this bird "sits on the eggs of a stranger, when that stranger returns to nest, and drives away the intruder before she can hatch them, the partridge so expelled resembles a man in low circumstances, who had possessed himself for a time of the property of another, but is forced to relinquish his acquisition before he can render it profitable:" and this is the simile of the prophet.—Tr. in B. and the L.; H. Observ., vol. ii.; Illus. Com., vol. iv.

THE PEACOCK.—We have the name of this bird three times in the Authorised Version, but in one case (Job xxxix. 13) the Hebrew word denotes the ostrich (which see); in the other two cases (I Kings x. 22, and 2 Chron. ix. 21) our version is probably correct. Commentators have variously advocated the claims of the pheasant, sun-bird, parrot, guinea-fowl, &c., but the more general opinion is in favour of the peacock; and this reading is sanctioned by the ancient versions and the Hebrew interpreters. Peacocks are named among the natural products of the land of Tarshish (probably India), which Solomon's fleet brought home to Jerusalem; and it is in this connection alone that

we read of them in Scripture.—Illus. Com., vols. ii.

THE PELICAN.—"The pelican," says Mr. Bannister, "is a migratory bird found on the lakes of Judæa and Egypt, and on the banks of the Nile and Strymon. The full-grown male is a larger and finer bird than the swan, weighing from twenty to twenty-five pounds, and measuring from wing to wing not less than fifteen feet. The upper beak or mandible is flat and broad, and hooked at the end; the lower mandible has appended to it an elastic bag or pouch, reaching eight or nine inches down the neck, and large enough, when dilated, to contain several quarts of water." Kitto observes that he has often seen one of the species sitting on the ledge of a rock, a foot or two above the surface of the water, in pensive silence during the whole day. At other times he has observed them urging their way with rapid flight thirty or forty miles into the country after a day's fishing, to feast in the lonely wilderness upon the contents of their wellfilled pouches, and was then reminded of the words. "I am like a pelican in the wilderness" (Psalm cii, 6). -Illus. Com., vol. iii,; and Surv. of the H. L.

THE PIGEON. (See Dove.)

THE QUAIL.—After examining the different theories so ably set forth in Mr. Houghton's article on this bird in Smith's Dictionary, we have come to the conclusion that the quail is after all intended. Quails

were sent on two occasions to the children of Israel in answer to their murmurings for flesh-meat (Ex. xvi. 13, and Num. xi. 31); and it is always in connection with these events that they are mentioned in other parts of Scripture. They "are remarkable for their migratory habits. They remove in prodigious flocks from place to place, having previously remained solitary during the period of incubation. They are often seen crossing the Mediterranean in their passage to and from Africa; and it is said that upon some occasions more than a hundred thousand have been killed about Naples at one time. There can be no doubt that the bird of passage of the Levant is the selav of the sacred writers; and though quails might settle in countless swarms around the tents of the Israelites without a miracle, yet nothing but the fiat of the Almighty could have sent them thither at an appointed time." "Colonel Sykes states that such quantities were once caught in Capri, near Naples, as to have afforded the bishop no small share of his revenue, and that in consequence he has been called 'Bishop of Quails.' . . . The Israelites would have had little difficulty in capturing large quantities of these birds, as they are known to arrive at places sometimes so completely exhausted by their flight as to be readily taken, not in nets only, but by the hand."

THE RAVEN.—That the Hebrew word 'oréb has been rightly translated "raven" in our version, no one appears to doubt. All the old versions agree in this

respect, and the word itself is confirmative of that rendering, as it is derived from a root which signifies "to be black." We first hear of it in Gen. viii. 7, when Noah sends forth a raven "to see if the waters were abated from off the face of the ground;" then we get it in Lev. xi. 15, among the unclean birds forbidden to the Israelites as food; and, later on. ravens are sent to Elijah at the brook Cherith with food for his support (I Kings xvii. 4, 6). The proverbial blackness of the raven is alluded to in Cant. v. II: "His locks are bushy and black as a raven;" and its well-known habit of attacking the eye when preying upon a body is mentioned in Prov. xxx. 17: "The eve that mocketh at his father, and despiseth to obey his mother, the ravens of the valley shall pick it out, and the young eagles shall eat it." In Job xxxviii. 41. Ps. cxlvii. 9, and Luke xii. 24, they are cited as instances of God's protecting love and goodness.

In commenting on the passage in I Kings xvii., which describes the ravens feeding the prophet at Cherith, Michaelis has tried to show that Elijah "merely plundered the raven's nests of hares and other game"! Another writer has justly observed, "The text knows nothing of bird-catching and nestrobbing, but acknowledges the Lord and Creator of the creatures, Who commanded the ravens to provide His servant with bread and flesh."—S. Dict., vol. iii.

THE SCREECH-Owl. (See Owl.)

THE SPARROW.—The Hebrew word tzippôr, which has been translated sparrow in Ps. lxxxiv. 3 and cii. 7, occurs upwards of forty times in the Old Testament, and is derived from a root signifying to "chirp" or "twitter." On this account it has been thought to denote any passerine 1 bird, without a particular reference to the sparrow. Birds of this order are very numerous in Palestine, as the following list of them, which is by no means an exhaustive one, will show:—

Starling
Chaffinch
Greenfinch
Goldfinch
Linnet
Corn Bunting
Pipit
Blackbird
Song-thrush
Woodlark

Crested Lark
Calandra Lark
Short-toed Lark
Isabel Lark
Isabel Lark
and various other
desert species
Ortolan Bunting
Cretzschmaer's
Bunting
Robin

Redstart
Whitethroat
Blackcap
Nightingale
Willow-wren
Dartford Warbler
Whinchat
Stonechat
Five species of
Shrikes

Of more southern species, we may mention the Little Fantail, Orphean, Sardinian Warbler, Rocksparrow, Blue Thrush, and the various species of Wagtail: though these by no means complete the list.

In the New Testament the word which has been rendered "sparrow" is stronthion, both in Matt. x. 29 and Luke xii. 6, 7; the Vulgate has passeres. "The inquiry of our Lord, 'Are not five sparrows sold for two farthings?' (Luke xii. 6), 'Are not two sparrows sold for a farthing?' (Matt. x. 29) points to their ordinary exposure for sale in His time. At the present day the markets of Jerusalem and Jaffa are attended

¹ The *Passerina* constitute the second and most numerous order of birds.—Ani. King., p. 177.

by many 'fowlers,' who offer for sale long strings of little birds of various species, chiefly sparrows, wagtails, and larks. These are frequently sold ready plucked, trussed in rows of about a dozen on slender wooden skewers, and are cooked and eaten like kabobs."

Another writer observes: "No traveller in Syria will long need an introduction to the sparrow on the house-top. There are countless numbers of them about you. They are a tame, troublesome, and impertinent generation, and nestle just where you don't want them. They stop up your stove and water-pipes with their rubbish; build in the windows and under the beams of the roof, and would stuff your hat full of stubble in half a day if they found it hanging in a place to suit them. They are extremely pertinacious in asserting their right of possession, and have not the least reverence for any place or thing. David alludes to these characteristics of the sparrow in the eighty-fourth Psalm, where he says that they had appropriated even the altars of God for their nests. Concerning himself he says, 'I watch, and am as a sparrow upon the house-top' (Ps. cii. 7). When one of them has lost his mate—a matter of everyday occurrence—he will sit on the house-top alone, and lament by the hour his sad bereavement."

"The sparrows which flutter and twitter about dilapidated buildings at Jerusalem," says a third writer, "are very numerous. In some of the more lonely streets they are so noisy as almost to overpower every other sound. A person who resided in the country told me that these birds are sometimes brought to market in order to be sold as food. Being so small and abundant, their value singly must, of course, be trifling; and hence, as the custom of selling them was an ancient one, we see how pertinent was the Saviour's illustration for showing how minutely God watches over all events, and how entirely His people may rely on His care and goodness."—S. Dict., vol. iii.; Bib. Treas., vols. ii. and iii.

THE STORK.—The stork of Scripture (Hebrew chasidah) is probably the white stork (ciconia alba). This bird has been looked upon in all ages with the kindliest feelings by man, although, as it is ranked with the unclean animals in Lev. xi., it is held in abhorrence by the Jews. Rae Wilson observes that "storks are supposed to be unrivalled among the feathered tribes for an affectionate and amiable disposition: they are exceedingly tame, and may be considered as domestic birds, and are further described as an emblem of filial affection—

'Because when age has seized, and made his dam Unfit for flight, the grateful young one takes His mother on his back, provides her food; Repaying thus her tender care of him Ere he was fit to fly.'

"In Egypt the stork was held as the emblem of a dutiful child. The Hebrew name signifies pious or benign. Storks feed on vermin, and are useful in destroying locusts. They build their nests upon the tops of houses in the country, and are under no kind of fear or apprehension of being dislodged. No such act, indeed, is contemplated by the inmates of any dwelling to which they resort." Sometimes they



build in trees—'the fir and other trees,' according to Dr. Shaw—and thus bear out that description of them in the Psalms, 'As for the stork, the fir-trees are her

house" (Ps. civ. 17).—R. W.'s Travels; Tr. in B. and L.; and Illus. Com., vols. i. and ii.

THE SWALLOW.—Though commentators find some little difficulty in rendering the Hebrew words, they are generally agreed that the swallow is intended. "Whatever be the precise rendering, the characters ascribed in the several passages where the names occur are strictly applicable to the swallow, viz., its swiftness of flight, its nesting in the buildings of the Temple, its mournful garrulous note, and its regular migration, shared indeed in common with several others." All the British species of swallow are found in Palestine, and in addition to these, the Eastern swallow and crag-martin, which build among the rocks and mountain gorges.—S. Dict., vol. iii.

THE SWAN.—This bird is mentioned twice in the Authorised Version, viz., in Lev. xi. 18 and the parallel passage in Deut. xiv (ver. 16); but few commentators have any thought that the swan is intended. Probably a species of water-hen is referred to, and perhaps the porphyrio hyacinthus mentioned by Kitto, which was a bird much famed by the ancients for its rich dark-blue plumage and brilliant red beak and legs. It abounds in the Levant and the islands of the Mediterranean, inhabiting the marsh-lands and the neighbourhood of lakes and rivers.—Illus. Com., vol. i.

THE VULTURE.—There seems good reason for believing that the Hebrew word (dayyah) would be better

rendered "kite" than by the "vulture" of our version. The Vulgate translates the word by milvus, which,



used as a verb, gives the thought of a swift, varied, and majestic flight, a description which would well apply to the kite. The easy and sweeping motion

with which it glides through the air is noticed by Kitto. There are two species of kites which inhabit Palestine; the red (milvus regalis) and the black (milvus ater): and possibly both species are referred to in the Bible; the former by ayyah in Job xxviii. 7, and the latter by dayyâh in Lev. xi. 14, Deut. xii. 13, and Isa. xxxiv. 15. The red kite, though spread all over the country, is nowhere found in great numbers: it soars to a great height, and apparently leaves the country in winter. "The black kite, which is so numerous everywhere as to be gregarious, may be seen at all times of the year, hovering over the villages and the outskirts of towns, on the look-out for offal and garbage, which are its favourite food. Vulture-like, it seldom, unless pressed by hunger, attacks living animals. It is therefore never molested by the natives, and builds its nest on trees in their neighbourhood, fantastically decorating it with as many rags of coloured cloth as it can collect .- S. Dict., vol. iii.; and Illus. Com., vol. i.

CHAPTER VIII.

THE RIVER AND THE SEA.

Early Rise of Navigation—Jewish Relations with the Phœnicians— Ancient Boats—Ancient Ships—Fish—Angling, Fishing, &c.— Reeds, Rushes, and Papyrus—Flags—The Lotus.

THE custom of embalming among the Egyptians may be brought forward as an indirect though satisfactory proof of the early rise of navigation among the ancients. The drugs and spices which were used on such occasions were foreign commodities, and were doubtless brought from India, either directly or by way of the Arabian sea and thence overland. Goods brought by the latter route would pass into the hands of the Arabian merchants, who would convey them on their camels to Egypt; and this is probably what was actually done, for the spices were called "Spices of Arabia," though India was the country which produced them.

The Jews were never a maritime people. Their neighbours, the Phœnicians, were the great maritime nation of the East—indeed, might be truly spoken of as "the people that went down to the sea in ships, and did business on the great waters." It is a thought widely entertained that they were the first

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ship-builders and navigators of the world: but whether this be the case or not, they were undoubtedly the first to venture beyond their own coasts, and to establish anything deserving of the name of a maritime commerce. Sidon, called in Joshua xix. 28 Great Sidon, was the first capital of Phœnicia, but afterwards it gave way before the superior claims of Tyre, although it long remained a place of considerable importance. Tyre and Sidon were the two largest cities of Phœnicia. Isaiah describes the former as the "mart of nations," a "joyous city whose antiquity is of ancient days," "the crowning city, whose traffickers are the honourable of the earth" (xxiii. 3, 7, 8); and in Zechariah we read that "Tyrus did build herself a stronghold, and heaped up silver as the dust, and fine gold as the mire of the street" (ix. 3). From this we can form some conception of the maritime importance and ancient prosperity of Phœnicia. In the days of Solomon commercial relations were entered into between the Phoenicians and the Jews, and the king communicated a wish to Hiram, king of Tyre, to enter into an engagement for a supply of timber, knowing, as he said, "there is not among us any that can skill to hew timber like unto the Sidonians." Hiram returned the courteous answer, "I have considered the things which thou sentest to me for: and I will do all thy desire concerning timber of cedar, and concerning timber of fir. My servants shall bring them down from Lebanon unto the sea: and I will convey them by sea in floats unto the place that thou shalt appoint me, and will cause them to be discharged there, and thou shalt receive them: and thou shalt accomplish my desire, in giving food for my household" (I Kings v. 8, 9). "This," as Kitto says, "was speaking like a man accustomed to the business."

In return for these services Solomon supplied Hiram annually with wheat and barley, and wine and oil, all of which Judea produced in abundance. Afterwards. when Solomon fitted out a fleet at Eziongeber to go to Tarshish, Hiram furnished him with sailors, as the Tyrians understood maritime affairs much better than the Israelites. In a subsequent period, after the division of the ten tribes, Ahab, the king of Israel, having married Jezebel, the daughter of Ethbaal, king of Sidon, introduced the worship of Baal, the god of the Sidonians; and afterwards the worship of the same idol was introduced by her daughter, Athaliah, into the kingdom of Judah. At a still later period in the Jewish history we find the Tyrians brought fish and all manner of wares to Jerusalem, and were threatened with punishment by Nehemiah for exposing them for sale on the Sabbath day. Old Tyre was situated on the land, and withstood a siege for thirteen years by Nebuchadnezzar. Ultimately it was taken; but the Tyrians having the command of the sea, removed themselves, their families, and their property before Nebuchadnezzar could take possession of the place. The Tyrians afterwards returned, and built New Tyre, which was at a little distance from the land, and was founded on a rock about three miles in circumference. This new city was besieged by Alexander the Great, and taken, with great slaughter, after a siege of seven months.

The Tyrians were remarkable for their knowledge of navigation, their skill in manufactures, and the extent of their commerce. The most ample account we have of the commerce of ancient Tyre is contained in the 27th chapter of Ezekiel. In the prosecution of their commerce, they found it useful to establish colonies for conducting their trade with those countries in which the colonists were settled. They are said to have planted above forty colonies on different parts of the coast of the Mediterranean Sea. They went even to Ireland; and the 1st of May is still called in Irish, as pronounced, Boul tinne, that is, Baal teine, Baal's fire, teine meaning fire in Celtic. Baal, as all know, was the chief god of the Canaanitish nations. Ireland the tradition of the arrival of the Phœnicians is well known and fully believed.—Illus. Com., vol. ii.; Commerce of the Ancients; Darby's Irrationalism of Infidelity.

ANCIENT BOATS.—"Although the Arabs look upon a boat as a young ship, a boat is in fact the parent of a ship. To state, therefore, the history of a boat, would be equivalent to an account of the early history of navigation;" but this is beside our purpose. The navigation of rivers doubtless preceded that of seas, and may have originated in the desire of persons living

on one side of a river to communicate with those on the other. Swimming would have been their first resource, but the desire must soon have arisen to perform the journey in a more expeditious and less dangerous way; and perhaps the sight of some floating timber, washed down from the hills, suggested the idea of a raft or boat. The earliest form of boat would have doubtless been the canoe, and perhaps resembled those in use among the South Sea Islanders, being merely the trunks of large trees hollowed by fire; indeed, a writer of the name of Sanchoniathon affirms that this was the case, and attributes the discovery of the process to the Phoenicians. The monuments of the ancient Egyptians present us with the earliest indications of the existence of boats constructed from several parts, and it is not improbable that to them the invention is due. Herodotus speaks of round wicker baskets, interwoven with reeds, rushes, or osiers, and coated with skin, as in use among the Babylonians; and perhaps it is vessels of this kind which are alluded to in Isaiah xviii. 2, 'vessels of bulrushes upon the waters.' Sometimes, instead of being covered with skins, these basket-boats were coated with bitumen; and such boats are in use even at the present day. Of this kind would be the 'ark of bulrushes,' in which the infant Moses was placed, and which is described as 'daubed with slime and with pitch'" (Exod. ii. 3).

Ancient Ships.—Of ships, the most ancient were

of three kinds-ships of war, of passage, and of merchandise. They are represented as adapted both for rowing and sailing, and each of these means is referred to in the Word of God. Of the vessel which was conveying the prophet Jonah to Tarshish we read. "Nevertheless the men rowed hard to bring it to the land" (Jonah i. 13); and in Ezek. xxvii. 7 we read of the ships of Tyre. "Fine linen with broidered work from Egypt was that which thou spreadest forth to be thy sail." The superb appointments of the ships of Tyre may be gathered from the passage last quoted. as well as from other verses in the same prophecy. "They have made all thy ship-boards of fir-trees of Senir: they have taken cedars from Lebanon to make masts for thee. Of the oaks of Bashan have they made thine oars. The company of the Ashurites have made thy benches of ivory, brought out of the isles of Chittim. . . . Blue and purple from the isles of Elishah was that which covered thee. The inhabitants of Zidon and Arpad were thy mariners—thy wise men, O Tyre, that were in thee, were thy pilots" (Ezek. xxvii. 4-8). Major Rennel, writing upon the subject of the early navigation of the world, has this reference to the ships in use in past ages: "It appears that the principal difficulty to be surmounted in ancient voyages arose from the impracticability of stowing the ships with provisions adequate to the vast length of time required for their navigations, when the rate of sailing was so remarkably slow. They were ill-adapted to distant voyages (which, indeed, they seldom under-

took); but did very well in situations where they could land and command provisions almost at pleasure. But, on the other hand, they were better adapted to those coasting voyages which constituted almost the whole of their navigations. The flatness of their bottoms required much less water than modern vessels of the like tonnage; whence arose an incredible advantage over ours, in finding shelter more frequently; and indeed, almost everywhere except on a steep or rocky shore, since, in default of shelter afloat, they drew their large ships upon the beach, as our fishermen do their large boats." In Luke v. ii. the expression is, "And when they had brought their ships to land," &c. The ships of war were not adapted for carrying any cargo; the chief object was swiftness in rowing. The men could never sleep, nor even conveniently eat on board. In their naval expeditions they, like the merchantmen, kept close to the shore, but, unlike them, landed to take their meals. about to engage, they took down their sail and depended entirely on their oars, as they could then advance or retreat, according to circumstances. ships of war were called "long ships;" and being long and narrow, and crowded with men, they could not bear up against a high wind; the merchant vessels were called "round ships." The ships of the ancient Egyptians, as depicted on the monuments, bear a striking resemblance to the war-junks in use among the Chinese at the present day.

Commenting on the passage, "Sailing was now

dangerous, because the fast was now already past" (Acts xxvii. 9), a recent writer says: "The fast alluded to was that mentioned, Lev. xvi. 29, which fell about the latter end of our September, near the time of the autumnal equinox." But why, it may be asked, should sailing then be reckoned dangerous? answer is familiar to many readers. Navigation was then in its infancy; ships were not then constructed with strength to sustain the strains arising from the storms attendant on or following the autumnal equinox, and the compass (that mysterious guide when sun and stars are obscured) was then unknown. In the account of the invasion of Britain given by Julius Cæsar in his well known "Commentaries on the Wars in Gaul," the following remarkable illustration of the Sacred Page occurs, showing clearly that, though modern vessels navigate our seas at all times of the year, yet a writer almost contemporary with Paul records the fact that, after the end of September, sailing was in his time considered dangerous. Cæsar, relating the circumstances of his withdrawing from the shores of our island, says that when he had a long time in vain expected ships from France, "lest he should be prevented from sailing by the time of the year, because the equinox was near," he disposed the soldiers more closely in a few vessels he possessed, and, setting sail in a calm night, arrived safely at the opposite shore by break of day.—Illus. Com., vols. i., ii., iii., iv., and v.; Commerce of the Ancients; and Bib. Treas., vol. v.

FISH.—Although fish, and the various modes of catching them, are often referred to in the Word of God, they are nowhere mentioned by name—the "whale" of our version, which some might be ready to cite as an exception, being the generic term in the original for the great marine animals. "The Hebrews recognised fish as one of the great divisions of the animal kingdom, and, as such, give them a place in the account of creation, as well as in other passages where an exhaustive description of living creatures is intended; Gen. i. 21 and 28, ix. 2; Ex. xx. 4; Deut. iv. 18; I Kings iv. 33. No classification of them was attempted beyond the broad divisions of clean and unclean, great and small, the former of which was established by the Mosaic law (Lev. xi. 9 and 10), and the latter by the distinction which is indicated in the 21st and 28th verses of Genesis i.

Much has been written on the subject of the "great fish" which swallowed Jonah, and rationalists and infidels have raised many petty and puerile objections to the Scriptural account of the prophet's adventure; but difficulties all vanish when we know that, although the Authorised Version of the New Testament gives "whale" as the name of the fish, the Greek word know (ketos) denotes any sea monster, as "whale," "shark," "seal," or "tunny of enormous size." The question only follows, What sea-monster is intended by the narrative? And almost all commentators are agreed that it must be the shark. "The only fish capable of swallowing a man would be a large

specimen of the white shark (carcharias vulgaris), that dreaded enemy of the sailors, and the most voracious of the family of Squalida. This shark, which sometimes attains the length of thirty feet, is quite able to swallow a man whole," as many writers testify. "Ruvsel says that the whole body of a man in armour has been found in the stomach of a white shark; and Captain King, in his Survey of Australia, says he had caught one which could have swallowed a man with the greatest ease. Blumenbach mentions that a whole horse has been found in a shark; and Captain Basil Hall reports the taking of one in which, besides other things, he found the whole skin of a buffalo, which a short time before had been thrown overboard from his ship." Moreover, the white shark abounds in those waters through which the vessel containing the prophet would have to pass, whether we consider its destination (Tarshish) to have been in Spain, Cilicia, or* Ceylon. Thus, all the profane witticism which has been directed against the passage only shows the ignorance of those who have been abandoned enough to indulge in it.—Illus. Com., vol. iv.; S. Dict., vols. i. and iii.

Angling, Fishing, &c.—The Bible contains numerous allusions to the art of fishing, and usually the references are of a metaphorical character. There is one verse (Hab. i. 15), "They take them with the angle, they catch them in their net, and gather them in their drag," which is specially deserving of notice.

"This verse," says Dr Kitto, "is remarkable for the various modes of fishing to which it alludes; and, to complete the list, the 'fish-spears' mentioned by Job might be added. There appears, indeed, to have been no mode of fishing now in use which was not known and practised by the ancient nations." Figures of persons angling occur frequently in the paintings of the Egyptian tombs and on the walls of the Roman Herculaneum, sometimes with the rod and line, and sometimes with the line alone. The Egyptians adopted a ground-bait without any float, and it does not appear that they ever put winged insects to the hook, or had devised any process similar to our artificial flyfishing. Fishing with nets was also very common; but this mode was employed almost exclusively by those who made fishing their business. These nets were of two kinds: the casting-net, which is referred to in Hab. i. 15; Ezek. xxv. 5-14, xlvii. 10; Matt. iv. 20, 21; Mark i. 18, 19; Luke v. 2; and John xxi, 6; and the draw or drag-net, which was larger, and required the use of a boat, and is referred to in Isa. xix. 8; Hab. i. 15; and Matt. xiii. 47. Referring to the official calls of the four disciples-Simon, Andrew, James, and John-in Mark i. 16-20, the Scotch missionaries observe: "We reached the lake Bourlos (in Egypt). . . . The fishermen on shore were using a net resembling the poke-net used in the isles of Scotland. It is circular, and weights are placed round the circumference. The fisherman holds it in the centre, gathers it up in his hand, and casts

it into the water; he then draws it slowly to shore by a line fastened to the centre. This is probably the very kind of net used by the disciples. We saw the same afterwards at the Lake of Galilee." To this reference is made later on in the same work. "While we were bathing in the sea of Galilee, a fisherman passed with a hand-net, which he cast into the sea. ... The simple fisherman little knew the feelings he kindled in our bosoms as he passed by our tent, for we could not look upon his net, his bare limbs and brawny arms, without reflecting that it was to two such men that Jesus once said by this sea: 'Follow me, and I will make you fishers of men." The use of fish-spears, to which, however, there is only one allusion in Scripture, and that a doubtful one, appears very clearly in the paintings of ancient Egypt. spear consists of a long and stout pole, terminating in two long and fine prongs, single-barbed, and one of them longer than the other. One of Rosellini's engravings shows a man, who is standing up in his boat, who has struck two fish at once with this instrument. one on each prong."

REEDS, RUSHES, AND PAPYRUS.—There are three Hebrew words in the Old Testament which signify, beyond question, some kind of reed or rush, viz., agmon, gome, and kaneh. A fourth word, 'aroth, has been erroneously translated "paper-reed" in our version of Isaiah xix. 7, but it would be better translated "pot-herbs" or "green plants." The Septuagint translates it by "all the green herbage."

The first word, agmôn, occurs five times in the Bible; twice in the book of Job, where it is wrongly translated "book" in xl. 26, and "caldron" in xli. 20, and three times in Isaiah, where we have "rush" in ix. 14 and xix. 15, and "bulrush" in lviii. 5. It is sufficient to add that some aquatic reed-like plant is intended, to be found in marshy pools or reed-beds.

—S. Dict., vol. iii.

The second word, gôme, demands a more extended notice. It is rendered in the Authorised Version by "rush" and "bulrush," and denotes the papyrus or paper-reed of the ancients, a plant of the sedge family, Cyperaceæ, which formerly was common in some parts of Egypt. The Hebrew word is found four times in the Bible. Moses was hid in a vessel made of the papyrus (Ex. ii, 3). Transit-boats were made out of the same material by the Ethiopians (Isa. xviii. 2); the paper-reed is mentioned, together with kaneh, the usual generic term for a "reed," in Isaiah xxxv. 7, and in Job viii. II, where it is asked, "Can the papyrus plant grow without mire?" "The trunk of this plant," says one writer, "is composed of several coatings, lying one on the other, which are taken off with a needle. They are afterwards spread on a table, so much of which is moistened as is equal to the size which it is intended the leaves of papyrus shall be of. This first bed of leaves is covered with a layer of fine paste, or with the muddy water of the Nile warmed; then a second bed of paper leaves is laid upon this paste, and the whole is left to dry in the sun. Such was the Egyptian

papyrus, whence our paper takes its name, though the composition be so very different." The plant, which is without leaves, grows to the height of from three to six feet, and its flowers, which appear in a bunch at the end of each stalk, are in very small spikelets. It is found in stagnant pools and running streams.

The Scotch missionaries have an interesting fragment, accounting for the disappearance of the papyrus and other reed-like plants from the Nile and its neighbourhood. "Scarcely any of those reeds," they write, "for which the Nile was once famous, are now to be found upon its banks. The lotus particularly has disappeared, so that it is nearly unknown; and the papyrus is very rare. Now, the words of Isaiah are these: 'The waters shall fail from the sea, and the river shall be wasted and dried up.' This has literally taken place. In the days of the prophet there were seven mouths of the Nile. There are now only two; the rest have been wasted and dried up. But farther, he predicts, 'They shall turn the rivers' (i.e., the canals) 'far away, and the brooks of defence shall be emptied and dried up; the reeds and flags shall wither. paper-reeds by the brooks, by the mouth of the brooks, and everything sown by the brooks, shall wither, be driven away, and be no more.' These words have come to pass, while at the same time it is interesting to remark that Egypt is as famous for its melons and cucumbers, its leeks, and onions, and garlic, as it was in the days of Moses. The reeds were commanded to wither, and they have fled away; the other productions, against which no word of threatening went forth, have been left luxuriant as before."—Miss. to the Jews; S. Dict., vol. iii.; Scrip. N. H.

The third word, kaneh, is the generic name for a reed of any kind. It occurs in numerous passages of the Old Testament, and sometimes denotes the "stalk" of wheat, as in the narrative of Pharach's dream, where the seven ears of corn are represented as coming up "upon one stalk." Sometimes it denotes the "branches" of the candlestick; twice it is used as the name of a measure of length equal to six cubits, and once as the name of the bone of the arm between the elbow and the shoulder (Gen. xli. 5, 22; Exod. xxv. and xxxvii.; Ezek. xli. 8; xl. 5; Job xxxi. 22).—S. Dict., vol. iii.

FLAGS.—The word achû, which is rendered "flag" in Job viii. II, has been shown by Gesenius to be an Egyptian word, and signifies marsh vegetation of every kind. The same word is rendered "meadow" in Genesis xli. 2. The Hebrew word in Exodus ii. 3 and 5 and Isaiah xix. 6 (where we have "flag" in our version) is not, however, the same. It is sûph, "the word from which the Red Sea derives its Scripture name of Yam-Sûph, the 'weedy sea.'" The reference in both these passages is to a water-plant grown in Egypt at the river-side—probably the Alga Nilotica. It is doubtless a weed of this kind that Jonah alludes to when he says, "The weeds were wrapped about my head" (Jonah ii. 7).—Scrip. N. H.; S. Dict., vol. i.

THE LOTUS.—Whether the word rendered "leeks" in Numbers xi. 5 really denotes the lotus we do not presume to judge; but some have thought so, and it may therefore be of interest to the reader to have before him the description of the plant which Hero-"The Egyptians who inhabit the dotus has left us. marshy grounds, to procure themselves more easily the means of sustenance, make use of the following expedient: When the waters have risen to their extremest height, and all their fields are overflowed, there appears above the surface an immense quantity of plants of the lily species, which the Egyptians call the lotus: these having been cut down they dry in the sun. The seed of the flower, which resembles that of the poppy, they make into a kind of bread, and bake; they also eat the root of this plant, which is round, of an agreeable flavour, and about the size of There is a second species of the lotus an apple. which grows in the Nile: the root of which is very grateful either fresh or dried." The flower of the lotus is described as white and odoriferous.—Herod. ii.

CHAPTER IX.

TREASURES OF EARTH AND OCEAN.

Adamant—Agate—Alabaster—Amethyst—Beryl—Carbuncle—Chalcedony—Chrysolite—Chrysoprasus—Coral—Crystal—Diamond—Emerald—Jacinth—Jasper—Ligure—Onyx—Pearl—Ruby—Sapphire—Sardine—Sardius—Sardonyx—Topaz.

WE propose to treat in this, our concluding chapter, more especially of the precious stones referred to in the Bible, a subject of some importance to the Biblical student, particularly to the one whose researches lead him into the wide and fertile fields of prophecy. Pursuing our usual plan of arranging the subjects alphabetically, the first stone that comes before us is adamant.

ADAMANT.—The Hebrew word for this stone (shmir) is sometimes rendered "diamond;" but it probably means the smiris, a very hard stone, which was used by the ancients for cutting and polishing other hard stones, and also glass. The word signifies, that which cannot be broken. Adamantine spar, or corundum, is a stone which is found either as a regular crystal with little lustre, or in mass. Those which are procured from India are usually deemed the purest. Both there and in China, being extremely hard, it is used

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to polish steel and gems. See Ezek. iii. 9, and Zech. vii. 12.—Scrip. N. H.; C. Dict.

AGATE.—This precious stone is said to take its name from a river in Sicily, where it was first found. It belongs to a class of silicious semi-pellucid gems of many varieties, consisting of quartz-crystal, flint, hornstone, chalcedony, amethyst, jasper, cornelian, &c., variegated with dots, zones, filaments, ramifications and various figures. It is mostly found in rocks, and is esteemed the least valuable of all the precious stones. It is now used for seals, rings, burnishers, &c.; but in Old Testament times it was honoured with a place on the high-priest's breastplate (Exod. xxviii. 19, and xxxix. 12). It is possible, however, that the word translated agate in the Authorised Version will bear another meaning, and signifies a more costly stone than this. The word is kădhkód, and bears the thought of pounding or beating to produce fire, from which some have concluded that it denoted a sparkling gem or ruby (Isa. liv. 12, and Ezek. xxvii. 16.—C. Dict.; Barnes on Isa., p. 714.

ALABASTER.—A genus of fossils, nearly allied to the marbles, and, according to Pliny, found in the neighbourhood of Thebes in Egypt, and about Damascus in Syria. This material being very generally used to fabricate vessels for holding unguents and perfumed liquids, many vessels were called alabaster, though made of a different substance. It is a bright, elegant stone, often white as snow, and it is easy to cut and

polish. Alabaster boxes, as receptacles for ointments, were evidently familiar articles in early times; and Pliny mentions them in this connection in his third book. In Matthew xxvi. 6 and 7 we read of the woman with the alabaster box of "very precious ointment," which she poured upon the Saviour's head; and Mark adds that "she brake the box" when so doing (xiv. 3). Dr. A. Clarke, however, translates the clause "she brake the seal," remarking that this is the best translation he can give of the passage, and that he gives it for these reasons: First, it is not likely that a box, exceedingly precious in itself, should be broken to get out its contents. Secondly, the broken pieces would be very inconvenient, if not injurious, to the head of our Lord and to the hands of the woman. Thirdly, it would not be easy effectually to separate the oil from the broken pieces. And fourthly, it was a custom in Eastern countries to seal the bottles that held the perfume with wax; so that, to come at their contents, no more was necessary than to break the seal, which this woman appears to have done; and when the seal was thus broken, she had no more to do than to pour out the liquid ointment, which she could not have done had she broken the bottle.—Bib. Treas., vol. v.; C. Dict.; Scrip. N. H.

AMETHYST.—The amethyst is a gem of a rosy colour, and of great brilliancy. It is generally considered as hard as the ruby and sapphire. The name "amethyst" is now given to a gem of a violet colour, which increases

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in value as the tint inclines to rosy red. The Eastern amethyst is the most rare, hard, and precious. It is found in India, Siberia, and Spain; and inferior stones are abundant in most countries. It stood ninth in order on the high-priest's breastplate, and bore the name of Issachar (Ex. xxxix. 12; Rev. xxi. 20).—
Illus. Com., vol. v.; Scrip. N. H.; C. Dict.

BERYL.—This was the eighth stone in the high-priest's pectoral. There is considerable difference of opinion among commentators as to what is meant by this stone. Some have understood it to mean the chrysolite, others the topaz, and others the turquoise. One has even hazarded the thought that amber is intended. There is a stone of a bluish-green or seacolour, found in Siberia and Dauria on the Chinese frontier, which is perhaps the stone intended. Indeed, it is remarkable that the Hebrew name for beryl is twice applied to the sea itself in Scripture, viz., in Psalm xlviii. 7 and Isaiah ii. 16. Schleusner, following this thought, describes it as a gem of the genus emerald, but less valuable than the emerald.—C. Dict.; S. Dict., vol. i.; and Scrip. N. H.

CARBUNCLE.—The carbuncle is a beautiful gem of a deep red colour with a mixture of scarlet, called by the Greeks anthrax, found in the East Indies. It is usually about a quarter of an inch in length. When held up to the sun it loses its deep tinge, and becomes exactly the colour of a burning coal. The Hebrew name is derived from quadhahh, to burn, and denotes

a flaming or sparkling gem. It is said to glitter even in the dark, and to sparkle more than the ruby, although some have identified it with that stone. The carbuncle occupied a place in the first row on the high-priest's breastplate.—C. Dict.; Barnes on Isa., p. 714.

CHALCEDONY.—A gem so called from Chalcedon in Asia, where it was found. The common chalcedony is of various shades of white, grey, yellow, brown, green, and blue. There is a blackish-brown variety, which appears of a blood-colour when held between the light and the eye. Some, indeed, have thought it was the bloodstone (sometimes called the "heliotrope" and "Oriental jasper"), which is used in the present day for seals. The common chalcedony, above described, occurs sometimes in stalactitical forms, with organic impressions. Very fine specimens of this kind have been found in the Trevascus Mine in Cornwall.

—Illus. Com., vol. v.; and Scrip. N. H.

CHRYSOLITE.—The precious stone which garnished the seventh foundation of the New Jerusalem in St. John's vision. It is described as a gem of golden hue, or rather of yellow streaked with green and white. The yellow tinge gave it its name, chrusolithos or "goldenstone."—S. Dict., vol. i.; Illus. Com. vol. v.

CHRYSOPRASUS.—A variety of the above, of an apple or leek-green colour. It is nearly all flint or silica; a minute proportion of the oxide of nickel

seems to impart the green which it possesses. It is found in veins of interrupted beds in the midst of a green earth which contains nickel. It loses the delicacy of its original hue if much handled or worn as an ornament.—Illus. Com., vol. v.; Scrip. N. H.

CORAL.—Coral is mentioned in the Authorised Version in Job. xxviii. 18, and Kitto thinks that this rendering is correct. He is supported in his opinion by the Hebrew interpreters and the renderings of the Oriental versions. De Wette, however, gives "pearls" as a more correct rendering; but as this writer would exchange the "rubies" of the same verse (A. V.) for "corals," it will not be out of place to consider this interesting product of the ocean. "The examination of a coral reef," says Captain Basil Hall, "during the different stages of one tide is particularly interesting. When the sea has left it for some time, it becomes dry, and appears to be a compact rock, exceedingly hard and ragged; but no sooner does the tide rise again, and the waves begin to wash over it, than millions of coral worms protrude themselves from holes on the surface which were before quite invisible.

"These animals are of a great variety of shapes and sizes, and in such prodigious numbers that in a short time the whole surface of the rock appears to be alive and in motion." "The calcareous substance with which these animals are associated is formed with them, until at last, with succeeding generations of their countless multitudes, enormous masses are formed, which, rising

near the surface of the water, endanger navigation, or rising above it, form islands, which ultimately acquire soil and vegetable produce and become fit for the abode of men." As the poet sings:—

"Millions of millions thus, from age to age, With simplest skill and toil unweariable, No moment and no movement unimproved, Laid line on line, on terrace terrace spread, To swell the heightening, brightening, gradual mound. By marvellous structure, climbing towards the day. Each wrought alone, yet all together wrought, Unconscious, not unworthy instruments . By which a hand invisible was rearing A new creation in the secret deep. Omnipotence wrought in them, with them, by them; Hence what Omnipotence alone could do, Worms did. I saw the living pile ascend, The mausoleum of its architects. Still dying upwards as their labours closed: Slime the material, but the slime was turned To adamant by their petrific touch; Frail were their frames, ephemeral their lives, Their masonry imperishable. All Life's needful functions, food, exertion, rest, By nice economy of Providence, Were overruled to carry on the process Which out of water brought forth solid rock."

—Illus. Com., vol. iii.; Mys. Ocean, pp. 192-4.

CRYSTAL.—The Hebrew word implies purity, and thence transparency, from which Dr. Kitto has been led to think that the diamond is intended; which, indeed, is the purest and most brilliant of all the precious stones. The same word has been sometimes translated *frost* and *ice*; and this has led others to sup-

pose that actual crystal is intended; for, when seen in its native caves, it bears a great resemblance to ice. Immense caverns have been found entirely covered within with crystals. One was discovered in 1823, having a roof of crystal fifteen feet in thickness.

Terrible crystal seems to denote that of extraordinary brightness and transparency.—Illus. Com., vol. iii.; Scrip. N. H.

DIAMOND.—This was the sixth stone in the high-priest's breastplate, and bore the name of Naphtali (Ex. xxviii. 18). The Hebrew word, however, is the same as that rendered "adamant" in other places (see Adamant), and therefore may have been any hard stone known to the Israelites. It is very questionable whether the diamond (properly so called) was known at so early a date.—C. Dict.

EMERALD.—A precious stone of a bright green colour, placed in the second row on the high-priest's pectoral (Ex. xxviii. 17). The Hebrew word, however, signifies a flash of lightning or the glittering of a star, and Calmet conjectures from this that the emerald is not intended at all, but a stone called ceraunia, astroïtes, or iris, of which Pliny mentions several species.—C. Dict.

JACINTH.—Thought by some to be a variety of amethyst, of a violet colour, and by others to be a gem of deep-red colour, with tinge of yellow. The latter description of stone is found in beds of streams

and rivers in the East, along with rubies and sapphires.

—Illus. Com., vol. v.; Scrip. N. H.

JASPER.—A hard stone of a bright green, sometimes clouded with white and spotted with red or yellow. There are also red, yellow, and brown varieties. It is by no means a costly stone, and this fact has led Dr. Kitto to remark that "the pre-eminence given to the jasper" (in Rev. xxi. 11) "certainly does not belong to what is now called jasper, which, though it be sometimes pleasantly coloured, is by no means a precious stone." He considers that it may have been a variety of diamond of a blue colour.

LIGURE.—This stone was the first in the third row on the high-priest's breastplate; but commentators have not been able to discover what kind of precious stone is denoted by the Hebrew word. The word ligure is unknown in modern mineralogy. Some have thought that amber is intended; others, the hyacinth stone; and others, again, the rubellite; the latter is a hard stone of a red colour, which is sometimes sold for red sapphire.—S. Dict., vol. ii.

ONYX.—The onyx-stone has a whitish ground, and is variegated with bands of white and brown which run parallel to each other. It is a semi-pellucid stone of a fine flinty texture, taking an excellent polish, and is strictly of the flint or siliceous class. The resemblance which its ground colour has to that lunated spot at the base of the human nail was the

reason why it was called *onuxion*, from *onuz*, the nail. It formed the eleventh stone in the high-priest's pectoral (Exod. xxviii. 20). The word has also the sense in Scripture of an odoriferous nail or shell, as in Exodus xxx. 34, the shell being similar to that of the shell-fish purpura. This description of onyx is fished for in the watery places of the Indies, and also in the Red Sea.—C. Dict.; Illus. Com., vol. i.

PEARL.—The pearl is too well known to need any lengthened description. The finest of the kind are fished up in the Persian Gulf, and on the coast of Bahrein, so called from the city of that name on the borders of Arabia. Idumea and Palestine being not far distant from these parts, it is not to be wondered at that pearls were well known to Job and the Hebrews (Job xxviii. 18). In the Arabic, wise sayings are called pearls; and it would seem that a pearl in Scripture denotes wisdom, or, at least, anything of real value in the sight of God. Hence we have the injunction, "Give not that which is holy unto the dogs, neither cast ye your pearls before swine;" and in the same Gospel the Church is spoken of as a "pearl of great price" (Matt. vii. 6 and xiii. The twelve gates of the holy city, New Jerusalem, are described as "twelve pearls; every several gate was of one pearl" (Rev. xxi. 21).—C. Dict.; S. Dict., vol. ii.

RUBY.—It is thought that the word rendered "sardius" in some passages of Scripture should be

translated "ruby:" the latter is a beautiful gem of a red colour, mixed with purple. By reason of its splendid colour, it ranks in value and estimation next to the diamond. When the specimen is fine, and free from flaws, a ruby of large size will fetch £10,000 to £15,000. And yet, says the wise man, "Wisdom is more precious than rubies;" and so also, says King Lemuel, is a virtuous woman (Prov. iii. 15; xxxi. 10).
—Scrip. N. H.

SAPPHIRE.—Dr. Kitto, differing from a statement made above, places the sapphire next to the diamond as the most valuable of gems. The Oriental sapphire is of a sky-blue or fine azure colour, whence the prophets describe the throne of God as being of the colour of sapphire (Ezek. i. 26 and x. 2). Pliny informs us that in his time the finest sapphires came from Media; nowadays they are brought from Pegu, Ceylon, &c., where they are found in the sands and beds of rivers.

—Illus. Com., vol. i.; Scrip. N. H.

SARDINE AND SARDIUS.—These are identical, and the stone in question is reddish, approaching to white; in fact, it is much the same colour as a man's nail. The Hebrew word signifies redness. The stone gets its name from Sardis, where the first specimens were found (Rev. iv. 3, xxi. 20, &c.) It occupied the first place in the first row of the high-priest's breastplate (Ex. xxviii. 17 and xxxix. 10).—C. Dict.; and Scrip. N. H.

SARDONYX.—This is named as the stone which garnished the fifth foundation of the wall of the heavenly Jerusalem (Rev. xxi. 20). It is a species of chalcedony, distinguished by a beautiful display of red and white layers of cornelian in alternating bands. Pliny says that "by sardonyx was formerly understood, as its name implies, a sard with a white ground beneath it, like the flesh under the finger nail.—Illus. Com. vol. v.; Pl. Nat. H., xxxvii. 6.

TOPAZ.—This was the second stone on the first row of the high-priest's breastplate, and was the bright stone which garnished the ninth foundation of the heavenly Jerusalem (Ex. xxviii. 17, xxxix. 10; Rev. xxi. 20). It is one of the softest of the gems, of a pistachio green colour, and doubtless agrees with the chrysolite of modern times. Pliny says: "The topazos is held in high estimation for its green tints." "According to the authority of Juba, cited by Pliny, the topaz was derived from an island in the Red Sea called 'Topazos.' It is said that this island where these precious stones were procured was surrounded by fogs, and was, in consequence; often sought for by navigators, and that hence it received its name, the term topazin signifying in the Troglodyte tongue 'to seek." -- Illus. Com., vol. v.; Pl. Nat. H. xxxvii.

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