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JOURNAL OF
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ORDINARY MEETING.*

D. HOWARD, ESQ., D.L., IN THE CHAIR.

The Minutes of the last Meeting were read and confirmed, and after the announcement of the receipt of a letter from Her Majesty the Queen accepting the last issued volumes of the Transactions of the Institute, the following elections were announced :—

ASSOCIATES :—D. B. Hewitt, Esq., B.A., L.R.C.P.D., L.R.C.S. ; J. P. Cheshire ; Rev. J. Hartley, D.D., United States ; Rev. P. H. Cole, D.D., United States.

The following paper was then read by the Author :—

HERODOTUS. II.—AS A BOTANIST. (VIEWED IN THE LIGHT OF RECENT TRAVEL AND INVESTIGATION OF PLANTS AND TREES OF EGYPT.) By the Rev. F. A. WALKER, D.D., F.L.S.

HERODOTUS ON CASTOR OIL.

THE Egyptians who live in the marshes use for the anointing of their bodies an oil made from the fruit of the sillicyprium, which is known among them by the name of *kiki*. To obtain this they plant the sillicyprium (which grows wild in Greece) along the banks of the rivers and by the sides of the lakes, where it produces fruit in great abundance, but with a very disagreeable smell. This fruit is gathered, and then bruised and pressed, or else boiled down after washing. The liquid which comes from it is collected, and found to be unctuous, and as well suited as olive oil for lamps, *only that it gives out a grievous odour.*

Herodotus, Lib. II, c. 94.

* Subject introduced 4 Jan., 1897.

† Paper and discussion finally corrected by the Authors 1899.

Note in Rawlinson's Herodotus on the Castor Oil Plant.—The *Ricinus communis*, the castor oil plant, or the *Palma Christi*, in Arabic Kharneh, was known by the names of Croton, Trixis, wild or tree-sesamum, and (according to Dioscorides) of *σέσελι κύπριον*, which was doubtless the same as the *σιλλικύπριον* of Herodotus. It grew abundantly, according to Pliny, as it still does, in Egypt. The oil was extracted either by pressing the seeds, as at the present day, when required for lamps, or by boiling them and skimming off the oil that floated on the surface, which was thought better for medicinal purposes. Pliny was not singular in his taste when he says (xv, 7), "*Cibis fœdum, lucernis utile,*" "Disgusting for food, useful for lamps."

Note in Rawlinson's Ancient Egypt, Vol. I, p. 54, on the Castor Oil Plant.—The sillicyprium, or castor oil tree (*Ricinus communis*), grows abundantly in Egypt. It is a plant of a considerable size, with leaves like those of the vine, and bears a berry from which the oil is extracted. This has medicinal qualities, and was used anciently for medical purposes; but its main employment has always been as a lamp oil of a coarse kind. According to Strabo, the common people in Egypt applied it also to the anointment of their persons.

My own observations of the Castor Oil Plant in Egypt.—The cultivation of the castor oil plant along the banks of the Nile, alike in Upper Egypt as well as in Nubia, is in fact quite as much an every-day sight to the modern traveller as in the days of Herodotus 460 B.C. However narrow the strip of cultivated land along the banks of the Nubian Nile may be, and all unite in testimony to its very limited dimensions for the most part, room must be found not only for the growth of lentils, lupins, and such like, but also for the inevitable castor oil within the scanty plot of ground. With this nauseous fluid the Nubians of to-day just as the Egyptians in the marshes of old steep their raven tresses, and plaster their copper-coloured complexions till their locks as well as their naked bodies are glistening all over with, as well as strongly redolent of, the compound. In my work, *Nine Hundred Miles up the Nile*, p. 176, the following passage occurs: "Until we emerge in the village of Mahattah, prettily situated in groves of date and dom palms, as well as sycamore figs, where the little swarthy Nubian children pop their heads over the clay

parapets of their dwellings, with their plaited tresses stiff and glistening with castor oil, and uttering the stereotyped cry of 'Baksheesh ya Howaga.'" Once more, in the outskirts of Munieh, half veiling our first glimpse of the Rameseum on our approach up stream, here represented by tall plantations, and again on the sandy slopes below the rock temples of Ipsambol, these only consisting of tiny plants, and in many another spot besides, *Ricinus communis* may be seen, and is moreover utilised to such an extent that not an article purchased from the inhabitants of Lower Nubia but what has to be hung over the rail of the steamer, or exposed on the paddle-box for days in order that the direful scent, in which they delight, may exhale.

HERODOTUS ON THE LOTUS.

But for greater cheapness of living the marsh men practice certain peculiar customs, such as these following:—they gather the blossoms of a certain water lily, which grows in great abundance all over the flat country at the time when the Nile rises, and floods the regions along its banks—the Egyptians call it the Lotos—they gather, I say, the blossoms of this plant, and dry them in the sun, after which they extract from the centre of each blossom a substance like the head of a poppy, which they crush and make into bread. The root of the lotus is likewise eatable, and has a pleasant sweet taste; it is round, and about the size of an apple. There is also another species of the lily in Egypt, which grows, like the lotus, in the river, and resembles the rose. The fruit springs up side by side with the blossom, on a separate stalk, and has almost exactly the look of the comb made by wasps. It contains a number of seeds, about the size of an olive stone, which are good to eat, and these are eaten both green and dried.

Herodotus, Lib. II, c. 92.

Various relations of the Lotos to Egyptian life.—The Lotos plant is so intimately and variously connected with the sundry phases of Egyptian life, that it is difficult to unravel and enumerate all the thoughts and associations to which the mention of this flower gives rise.

(1) The Lotos as a model for art.

The blossoms furnished an artistic model for the

decoration of the columnar capital of the Egyptian shrine.

- (2) The Lotos as an article of food.

Its seeds, and likewise its roots and stalks, served as an article of food.

- (3) The Lotos as used for garlands on festive occasions.

It is connected with the season of festivity, as the Lotos flower was always presented to guests at an Egyptian party, and garlands were put round their heads and necks.

“Multæque in fronte coronæ.”

- (4) The Lotos furnishes a wreath for the departed.

It was constantly used in the hour of sorrow, and in connection with the departed, as it was thought to be a flower of Hades or Amenti, the unseen realm, and I can personally testify to having seen dried wreaths of the buds and tendrils of this plant that were placed centuries since round the necks of the deceased, exposed to view along with the royal mummy so decorated, in the Boulak Museum.

- (5) *The Lotos*. Its mystic symbolism and mythology.

There is a great deal of mystic symbolism and mythology connected with the Lotos, and in the cult of more than one nation, moreover, probably such as can never fully, or in every instance be now comprehended, and both the Latin and the Arabic names of the water lily genus are full of significance.

Certain facts, however, are alike beyond the region of fancy or possibility of doubt, and therefore may be appropriately adverted to here.

The Lotos. The time of its appearance.—As regards the time of the appearance of the Lotos, Herodotus informs us that it corresponds with the annual inundation of the Nile. In a note on page 127 of Vol. II of Rawlinson's Herodotus we read, “This *Nymphæa Lotus* grows in ponds and small channels in the Delta during the inundation, which are dry during the rest of the year; but it is not found in the Nile itself.” It is nearly the same as our white water lily.

Two varieties of the Egyptian Lotos.—There are two varieties, the white, and that with a bluish tinge, or the *Nymphæa Cærulea*.

My own testimony as to the time of its appearance, and as to

the bluish variety.—On referring to *Nine Hundred Miles up the Nile*, p. 65, the following passage occurs: “These swamps (*i.e.*, swamps on the Cairo side of Damanhoor, distant at a rough estimate from forty-five to fifty miles from Alexandria) are covered with the plants of the water lily, but there are only a few—very few, and those white ones—in bloom. I do not think that they are the same as our English species, but it is difficult to determine from the railway carriage. (I have since learned that they are the true Egyptian lotos.) Over and above this passage in my book I may add that my recollection of these flowers is that though similar in shape to our own white water lily they were somewhat smaller in size, and that some of them at any rate had the “bluish tinge” recorded in Rawlinson’s notes, and were therefore probably the var. *cœrulea*. The time of its appearance (November 28th) will also correspond with that noticed by Herodotus, as even towards the close of the year the annual inundation of the Nile has not altogether subsided, and certain of them may have been in flower for several days before my arrival.

The statement of Herodotus above quoted in reference to “another species of lily” probably refers to the *nelumbium* or *nymphaea nelumbo*, a species common in India, and introduced into Egypt. Herodotus further states that there is another species of lily which contains a number of seeds about the size of an olive stone, which are good to eat, and these are eaten both green and dried. According to the note in Rawlinson’s Herodotus this is perhaps the *nymphaea nelumbo* or *nelumbium*, which is common in India, but which grows no longer in Egypt. I may here remark that the *nymphaea nelumbo* is as conspicuous in Hindoo mythology as the *nymphaea Lotus* in Egyptian, and that Rawlinson is quite correct in his statement that it is evident that the lotus is not borrowed from India, as it was the favourite plant of Egypt before the Hindoos had established their religion there. He likewise announces that the care taken in planting the *nymphaea nelumbo* formerly seems to show it was not indigenous in Egypt. Crocodiles and the *nelumbium* are represented, with the Nile god, on the large statue in the Vatican at Rome and in many Roman-Egyptian sculptures, but it is remarkable that no representation of the *nelumbium* occurs in the sculptures, though the common *nymphaea lotus* occurs so often. I cannot agree with the Professor as to its being remarkable. It is all but certain

that the native *nymphaea* Lotus was carved in periods long anterior to the introduction of *nymphaea nelumbo* at all, and also subsequently to its disappearance. The form of an indigenous plant would obviously be more familiar, more universally present to the eye, and for a longer period than that of a foreign species introduced. And no nation was more given than that of the Egyptians to representing creatures of the animal, bird, and reptile world, or species of plant life, whether through gratitude for benefits, or to deprecate noxious and baneful influences.

“O sacrosancti, quibus hæc nascuntur in hortis Numina,” scornfully exclaims Juvenal. So we behold multitudinous delineations of the jackal, the baboon, the hippopotamus, the owl, the vulture, the ibis, the crocodile, the cobra, the lotus, the papyrus, the palm, every-day objects for the beholder, always at hand for the artist, and esteemed and revered by the common people, and in many cases deified. Thus in Baalbec I have seen carved in stone on the lintels and above the porches of the Temple of the Sun in gratitude to the warming and maturing powers of the God of Day, a perfect flower garden and orchard of the rose, the poppy, the tulip, grapes, figs, gourds, pomegranates, &c., but all representative of the locality.

Account of the three species of Egyptian lotus (two native, and one introduced), in Rawlinson's "Ancient Egypt," Vol. I, pp. 56, 57, 58.

I.—The *nymphaea* lotus, which nearly resembles our white water lily, grows freely in the lowlands of the Delta during the time of the inundations, being found at that period in ponds and channels which are ordinarily dry. In ancient times the peasants collected and dried the seed vessels of this plant, which they crushed and made into cakes that served them for bread. They also ate the rest of the plant, which was considered to have a pleasant sweet taste, and was eaten either raw, baked, or boiled. A recent writer compares the flavour to that of a bad truffle, and complains that the taste is exceeding insipid, but it seems to have commended itself to the Egyptian palate, which was probably less fastidious than that of modern Europeans.

II.—The Lotus *cærulea* is scarcely more than a variety of the *nymphaea*. Its blossoms, which are of a pale blue colour, have fewer petals than those of the ordinary plant; its

leaves have a somewhat more oval shape, and are darker on their under surface. The seed vessels and roots are almost exactly similar, though the Arabs pretend to make a distinction, and to prefer the blue variety, which they call *beshnin a' raby*, the lotus of Arabs, while they term the white *beshnin el khanzyr*, "the lotus of pigs." Both the ordinary lotus and the *cœrulea* were valued on account of their flowers, which were employed at banquets, and woven into garlands for the guests.

III.—The *nelumbium* or *nymphaea nelumbo*, though not now found in Egypt, nor indeed in Africa, was beyond all doubt a denizen of the country in ancient times, though it may not have been indigenous. The Greeks and Romans knew it as the Egyptian bean, and the latter people regarded it as so characteristic of Egypt that they used it constantly where they wanted an Egyptian emblem. It has the general features of the lotus tribe, growing in water, with round leaves which float on the top, and having a large conical bud from which bursts a corolla of petals, that curve inwards, and form a sort of cup. The peculiarities of the *nelumbo* are the large size of its leaves, and the size and lovely colour of its blossoms. The diameter of the leaf varies from a foot to a foot and a half, the petals are six inches in length, and of a beautiful crimson or rose-purple hue. They are arranged in two rows, one inner and one outer, while within them at their base is a dense fringe of stamens, surrounding and protecting the ovary. Here the fruit forms itself. It consists of a fleshy substance, shaped like the rose of a watering-pot, and studded thickly with seeds, which project from the upper surface of the fruit, a circle about three inches in diameter. The number of the seeds is from twenty to thirty. They are about the size of a small acorn, and contain inside their shell a white sweet-flavoured nut or almond divided into two lobes, between which is a green leaf, or *corculum*, which is bitter, and should be removed before the nut is eaten. This nut, and also the root of the plant, were employed as food by the poorer classes among the ancient Egyptians.

Instances of my own observation of the representation of the lotus in Egyptian art.—As illustrations of the frequent employment of the lotus blossom in Egyptian art for painting and for sculpture as well, the following instances may serve as examples: on the end wall of the eastern chamber of the small temple of Dayr el Medineh, the lowest compartment

of sculpture is formed by a dado of lotus leaves and fruit. The westernmost chamber contains by far the most interesting series of carvings, because on its western and northern walls is sculptured the Last Judgment of Man. On the northern wall Osiris with scourge and crook, and again on the western, awaits those souls who are ushered before him in Amenti. Before him stand the four genii on a lotus blossom. (See *Nine Hundred Miles up the Nile*, p. 156; and again p. 178 of same work.) "On the eastern side of the island (*i.e.*, Philæ) is the temple commonly known as Pharaoh's Bed, a beautiful building of late date, possessing fourteen large sandstone columns with the usual lotus and papyrus capitals." But the lotus is not only reproduced in art owing to the gracefulness of its petals and general shape, it is intimately and mysteriously connected with the entrance of the soul into another world. One instance of this has already been given above in the representation in the shrine of Dayr el Medineh. Also in the copies made of coloured plaster that I obtained in Cairo of the ancient frescoes in the Tomb of Tih at Sakkarah, the lotus blossoms occur among the various hieroglyphics that form the border. Yet again, the buds and tendrils of the lotus previously alluded to as beheld in the mummy case of Amenophis I of the XVIIIth dynasty show that the lotus is connected with the ancient conception of the last journey, possibly as an offering to the deities of the nether realm. Anyhow it frequently figures in the mural paintings of the temples,* along with sundry other offerings to the gods. These instances might be multiplied indefinitely. It may be noticed once more with regard to the figuring of the lotus in sculpture that as the lotus is a native of Egypt and the favourite flower of that country, so the representations of the lotus, of the palm leaf, and of the papyrus as decorations of the capitals of columns,

* So too in the temple of Edfou a monarch makes libation and offers the lotus, and here again are three jackal-headed deities and three hawk-headed deities after them, who are all bearing a long-stemmed lotus between them (*Nine Hundred Miles*, p. 169), typical once more of the connection with Amenti, of which not only Horus, the hawk-headed god, to whom the temple of Edfou is dedicated, was symbolical, but the jackal, whose figure of wood is often found in mummy cases painted black to denote consecration. And so hawks on a jewelled necklace or corselet bearing the crown of Upper Egypt have been recently discovered in tombs of the XVIIIth dynasty, guarding on either side the grave of Osirtasen II, depicted on said trinket.

are purely local and Egyptian, and never to be found in Greece, where the corresponding embellishments in architecture consist solely of the Ionic egg, the Corinthian acanthus, and the Doric curve. The relation of the lotus to Hindoo mythology will shortly be considered.

Presentation of the lotus on festal occasions.—In Rawlinson's Herodotus, Vol. II, p. 127, may be seen an illustration of an attendant placing a garland round the neck of one of the guests. Another attendant in the rear carries another garland in his left hand, while he bears a lotus flower for presentation in his right.

Review of the scientific names of the lotus.—I fear that I shall have to bespeak a great deal of patience on your part if I am ever to make clear the confusion that would otherwise prevail respecting the generic and specific names of the lotus, and the many different plants to which the word lotus (or lotos, if the Greek form be retained) has been applied. To take the word *Cyanon* in the first place, which is a name given by Pliny to the *nymphaea nelumbo*, and of course signifies "blue." The name is appropriate enough in itself, only that the Latin equivalent *cærulea* has been given to the variety of the *nymphaea* lotus with a bluish tinge, called accordingly *nymphaea cærulea*. The adjective *κυάνεος* is employed of steel in Homer, and the appellation, simple and compounded, is now used so frequently in entomology and botany too, to designate various blue or bluish species, that its retention in every case is obviously of very dubious utility. Thus among plants we have *centaurea cyanus*, the corn blue bottle. *Æschna cyanea* is quite the commonest of the large long-bodied dragon flies that arrest our attention in the hedgerows every summer, while butterflies possess the generic as well as the specific name of *cyane*, and the following additional specific names *cyanea*, *cyanipardus*, *cyanippe*, *cyaniris*, *cyanomelus*, and *cyanus*. (*Addenda I.*, p. 106.)

It was only to be supposed that the purity, the beauty, and the grace of the water-lily tribe should lead to the generic name of *nymphaea* being assigned. Indeed, the appellation of a "nymph" has been frequently bestowed on slender, fitting inhabitants of the air as well as on graceful plants in science, and accordingly we have large families of butterflies classed as *nymphalideæ*, and *nymphalinae*, while smaller sub-genera are termed *nymphalis* and *nymphidium*, and individual species are known as *nympha*, *nymphalides*, *nym-*

phosa, and *nymphala*; on the same principle, that most graceful and lovely genus of dragon flies, *calepteryx*, is known in common parlance among the French as *les demoiselles*. Here again a too lavish use of the same word, or of kindred words with the same derivation, is to be deprecated.

There is good reason for terming our white water lily (*nymphæa alba*) by a Latin generic name *nymphæa*. Water nymphs were imagined to be beings of surpassing grace, and so, beyond all question, is the white lily of our lakes and rivers. There is also good reason for terming our yellow water lily (*nuphar luteum*) by another appellation, an Arabic generic name *nuphar* (*nufar*—related to *nofr*, good). For whatever the scientific affinities of *nuphar luteum* are, or are not, it is obviously not nearly so closely related to our white water lily as is the *nymphæa* lotus of Egypt, and probably the *nymphæa nelumbo* of India, too. But again we are confronted with the difficulty of the Egyptian species having both the Latin generic name (*nymphæa*) of our white water lily, which it does resemble, and the Arabic generic name (*nuphar*) of our yellow water lily, which it does not resemble. The Buddhists of Tibet and others call it *ne-nuphar*. The Egyptian god Nofr-Atmoo bore it on his head, and so its name *Nufar* is connected with his title *Nofr*, or good, and the compound of Nofr Nofretari occurs in the title (Nofretari) of an Egyptian queen Nofretari, the wife of Rameses II, as given in another paper that I have had the honour of reading before a meeting of the Institute.

Symbolism of the Lotus.—On this flower the Egyptian lotus, also, Harpocrates is often seated. He was the Egyptian Aurora, or day spring, not the God of Silence, as the Greeks supposed, but figured with his finger in his mouth, to show one of the habits of childhood, of which he was the emblem. Hence he represented the beginning of day, or the rise and infancy of the sun, which was typically portrayed rising every morning from that flower, or from the water, and this may have given rise to the notion of Proclus, that the lotus flower was typical of the sun. Eratosthenes also says this son of Isis was the "God of Day."

EGYPTIAN MYTHOLOGY NOT NECESSARILY DERIVED FROM THAT OF THE HINDOOS.

It is not a matter of necessity to suppose, as some have held, that because, in the representations of Egyptian, as of

Hindoo mythology, a deity was seated on the lotus, that therefore the conception of the former people was derived from that of the latter. Given two nations surrounded by similar external objects at a similar period of their civilization, and in the dawn of history, and it will be found in many instances that there is a striking family likeness between the images that occur to their respective minds. The famous hill that is covered with obsidian (*alias* vitrified lava) in the north-east of Iceland, and is said to present the appearance of a quantity of broken beer bottles jutting out from the soil beneath the rays of the sun, has been termed *Hrafnukryggr* by the natives, or mountain of the raven's wing, from a supposed resemblance to the glossy plumage of that bird, while the Peruvians, between whom and the Icelanders there can scarcely by any possibility have been any communication in the days of old, and in whose land obsidian is also found, have dubbed that formation by a name of similar import. Besides *Horus*, or *Har*, in other words *Harpa-hrat* (in the Greek form of the word, Harpocrates), is by no means to be regarded as the same deity as the Indian Cupid. The common legend runs as follows:—Osiris is king of Egypt, rules beneficently, goes upon his travels, leaves his wife Isis to conduct the government, which she does with vigour and prudence. Set, the principle of evil, conspires against Osiris, murders him, and having cut his body into fourteen pieces, disposes of them in various parts of the country. Isis collects the remains, and revivifies them, while Horus, to avenge his father, seeks out Set, and engaging him, brings him under. Apropos of this I may mention that I have myself inspected the sacred chamber of Osiris on the roof of the temple, known as "Pharaoh's Bed," in the island of Philæ, and formerly regarded as so sacred that even Strabo, the Roman historian, was not permitted to enter it, and I have there seen the celebrated bas-relief when he is recalled to life by Isis, his wife, at the head, and Nephthys at the foot of his couch, and is commencing to move his left arm and left leg in consequence. In another carving Pasht, the cat-headed goddess, stands at the head of his couch, where he is extended in death, and Horus, his son, wearing the combined crown at the foot. (*Addenda II.*)

Position of the lotus in Egyptian mythology.—It is just at this point that I think we have the clue as to the part the Egyptian lotus plays in the popular myth, if after having given much thought to the subject, I have the good fortune

to obtain your assent to the conclusions I am about to deduce.

Osiris is regarded by some as the sun, while others have seen in him the Nile inundation. Both theories are, in my humble estimation, compatible. Osiris is the beneficent principle. The vivifying power that the burning sun exercises on the Nile mud and the fertilising material annually left behind by the river as it sinks down once more into its normal channel are both productive of incalculable good. The two influences are inseparable. It is just when the summer is well advanced, and the sun is at its greatest power, that it melts the snows on far distant mountains in Central Africa, which in their turn cause the Nile to rise and overflow his banks in all his downward course. But simultaneously with the rising of the river comes the rising of the lotus during all the period of the inundation, ever extending its stalks, and lengthening its tendrils, and so keeping its snowy bloom on the surface in proportion as the water increases in height, of either lake or canal wherein it is wont to flourish. In its golden disk we behold the colour, in its star-shaped petals we recognise the shape of the rays of the sun overhead, a product of life renewed, and thus we comprehend why a lotus in mural painting and sculpture is so often offered to Osiris, lord of Amenti, the unseen realm, and why the lotus wreaths encircle the necks of mummies as though to accompany them on their last long journey, for the lotus is a sign of life renewed, of life beyond the grave, that the sun yet has power. Thus once more Set is the night or darkness which destroys the sun and buries him, but is in its turn slain by the reappearing, rejuvenated sun of the next day, Horus of the horizon, who thus avenges his father. Proclus's notion that the lotus flower was typical of the sun has already been referred to, and in the fact that a flower shaped like the sun rises from the water, we have a typical portraiture of the beginning of day, or rise and infancy of the sun, and we comprehend the import of Edgar Allan Poe's lines in *At Aarauf* quoted along with passages from other poets at the close of this paper.

"And Valisnerian Lotus, thither flown
From struggling with the waters of the Rhone."

It should ever be borne in mind that in connection with the myth of Osiris, Horus is indeed the offspring of Osiris, but still only a child, the youthful or rising sun, and is spoken

of as Harmachis (*Har-em-akhu*), Horus in the horizon, just elevated above the flood and no more, seated on the blossom that oscillated on its eddies. So too the frog was also an emblem of man as yet in embryo, as Herapollo and the Egyptian monuments show, and I, for one, can testify to its being no uncommon sight to behold a frog seated on a water lily leaf in our ponds at home.

There may likewise, as in the case of the Indian Cupid, in the appearance of the youthful Horus, be a reference to "Ἐρως or Love, dissipating the shades of night. "*Auditis, an me ludit amabilis Insania?*" (*Addenda III.*)

Is it a stretch of imagination on my part to conceive that the ordinary Egyptian, in whose case the rising Nile was freighted with all the hopes of a plenteous harvest, and the annual subsistence of his people thereby, as he watched the flower bud rising too to escape being smirched by the mud so copiously deposited or being soaked by the overflowing wave; as it reflected in its development the fostering influence of the god of day, and in its graceful form the rays of the orb on high, and in its lovely purity unfolded its individual and unique image; that such an one could refrain as he called to mind the exceeding serviceableness of that plant as an article of food as well, from the exclamation *nofr*, oh good—good exceedingly—meet offering for the gods?

So, as repeatedly elsewhere, have I seen in the temple of Esneh—dedicated to Kneph or Shoo, the ram-headed deity, soul of this world, the capitals of the columns of the portico carved in imitation of the lotus, so on its eastern wall of entrance do three lotus blossoms form part of the head-dress of a female figure in relief.

And hence its perpetuated, generic name of *nuphar*.

More than one tribe of plants is designated as the lotus alike in ancient and modern times.

As a necessary precaution against ambiguity we must all of us recall this important fact—

- (1) That more than one tribe of plants is designated as the "lotus" by ancient poet and historian in the classics.
- (2) That more than one tribe of plants is designated as the "lotus" by modern poets.
- (3) That more than one tribe of plants is designated as the "lotus" by modern botanists.
- (4) That the tribe of plants however most widely and

generally recognised as the "lotus" is that of the water lily, and especially the famous Egyptian species, *nymphaea* Lotus, in particular.

The Duke of Westminster's famous collection of aquatic plants at Eaton Hall, comprising not only the Egyptian lotus but sundry other species of water lily, too, is known as the Lotus house.

The accompanying enumeration may serve to throw some light on the subject:—

- (1) *Lotus*, λωτὸς (lotos), the *water lily* mentioned in Herodotus, II, 92; Edgar A. Poe's *Al Aaraaf*; T. Moore's *Lalla Rookh*.
- (2) *Lotus*, the *Greek lotos*, a kind of *clover* in meadows round Sparta and Troy. Perhaps *Trifolium melilotus*. Homer *Il.* 21, 351; *Od.* 4, 603.
- (3) *Lotus*, Cyrenean lotos, an African shrub whose fruit was the food of certain tribes on the coast, hence called *Lotophagi*. Herodotus, IV, 177; Homer, *Od.* IX, 84; Tennyson, *Lotos-eaters*. In the *Od.* its fruit also is called λωτὸς μελιηδής, "sweet as honey."

And Herodotus compares it in size to the fruit of the σχῆνος (as large as the mastich), in taste to the date (φοῖνιξ) and says that wine was made of it.

"*Ἀνθινον εἶδαρ* in the *Odyssey* refers not literally to the flower being eaten, but to the vegetable nature of the food. (*Addenda IV.*)

Lord Tennyson has not helped to make matters clearer, when in his *Lotos-eaters* he has sung of the *galingal* in North Africa. *Galingal* is the κύπειρον of Homer mentioned along with the abundance of clover (*Od.* IV, 603) in the description of the realm of Menelaus of Sparta.

Σὺ γὰρ πεδίῳ ἀνάσσεις
Ἐυρέος, φῖ ἐνὶ μὲν λωτὸς πολλὸς ἐν δὲ κύπειρον.

Thus *galingal*, which is a kind of sedge, and that I have myself gathered both north and south of Naples, at the Solfatara, and at Massa, the *Cyperus esculentus* of botanists is mentioned in Greece as growing along with lotos, the clover, by Homer.

Tennyson has spoken of it in Cyrene as growing along with lotos, the shrub. Yet again, he has described the

habitat of the lotos, the shrub, in one line that can only properly refer to the lotos, the water lily.

“The lotos blows by every winding creek.”

Homer, on the contrary, never mentions the lotos, the water lily, or hints that any other plant save lotos, the shrub, occasioned among the Lotophagi oblivion of country, friends, and home.

Herodotus, who does both mention lotos, the water lily of Egypt (Lib. II, 92), and Lotos, the shrub of Cyrene (Lib. IV, 177), keeps the mention of the two plants and their two countries quite apart and distinct. Also in this line of Tennyson's:—

“The yellow down

Bordered with palm.”

Egypt is vividly recalled to our mind's eye. The description may haply suit Cyrene too. But unless my judgment is greatly at fault, “the Lotos-eaters” combines the imagery of Greece with its Lotos the clover, Cyrene with its Lotos the shrub, and Egypt with its Lotos the water lily. Cyrene, wherein Homer and Herodotus unite to place the Lotophagi, may likewise possess the Egyptian water lily. For argument's sake let us suppose so. But which plant is it that Tennyson would assume occasioned the reckless forgetfulness? Lotos the shrub? or Lotos the water lily? In one passage his description can only refer to the shrub.

“Branches they bore of that enchanted stem
Laden with flower and fruit.”

In another the language would apparently indicate the yellow pollen of the corolla of Lotos the water lily.

“Round and round the spicy downs the yellow Lotos-dust is blown.”

To resume, a fourth species of lotus was known to the ancients, and likewise a fifth, though it may not be so generally famous, or celebrated in classical or modern literature.

IV.—A North African tree, according to Sprengel the *celtis australis* of Linnæus, mentioned both by Theophrastus and Pliny, like a pear tree with serrated leaves, bearing leguminous fruit without taste or smell, distinguished by its hard black wood, of which statues, flutes, etc., were carved. Hence *Λιβὸς λατὸς* is often used poetically by Euripides for a flute.

V.—Another lotus tree, *Diospyrus lotus*, which grew in Italy, had a short stem with polished bark. Its luxuriant

branches were trained upon houses (Columell, 7, 9). Its leaves were ovate, downy underneath, and its berries red and sweet tasted. I may now conclude this enumeration by remarking that there are two common and well known wild flowers in our English botany, that both possess the generic name of Lotus, and were recorded by me in the list of plants occurring in my Cambridgeshire parish.

(1) *Lotus eu-corniculatus*. The common birdsfoot trefoil.

(2) *Melilotus officinalis*. Common melilot.

As likewise both of the papilionaceous order, they are akin to, if not the same as, the Greek lotos, the clover of Menelaus of Sparta, and which is perhaps the *Trifolium melilotus* of Linnæus.

In the compound "*Meli-lotus*" we may perhaps trace some reminiscence of the *μελιηδέα καρπὸν*, honey sweet fruit of the Lotos in the land of the Lotophagi (Hom. *Od.*, Lib. IX, 94).

LOTOS THE WATER LILY.

It may not be out of place here to mention the passages wherein the poets have celebrated the blossoming of the Lotus.

There is found in the Rhone a beautiful lily of the Valisnerian kind. Its stem will stretch to the length of three or four feet, thus preserving its head above water in the swellings of the river.

"And Valisnerian Lotus thither flown
From struggling with the waters of the Rhone."

It is a fiction of the Indians that Cupid was first seen floating in one of these down the river Ganges, and that he still loves the cradle of his childhood.

"And the Nelumbo bud that floats for ever
With Indian Cupid down the holy river."

EDGAR ALLAN POE, *Al Aaraaf*,* p. 147.

* Or according to the different dictum of another poet,

"Love still has something of the sea
From which his mother rose."

It is noteworthy that the *Al Aaraaf* of Mahometans and *Amenti* of Egyptians, both probably signifying Hades or realm of the unseen, are both mentioned in connection with the lotus.

"Hence over Egypt's palmy groves,
 Her grotts, and sepulchres of kings,
 The exiled Spirit sighing roves
 And now hangs listening to the doves
 In warm Rosetta's vale, now loves
 To watch the moonlight on the wings
 Of the white pelicans that break
 The azure calm of Moeris' Lake.
 'Twas a fair scene—a land more bright
 Never did mortal eye behold !
 Who could have thought, that saw this night
 Those valleys, and their fruits of gold
 Basking in heaven's serenest light,
 Those groups of lovely date trees bending
 Languidly their leaf crowned heads
 Like youthful maids, when sleep descending
 Warns them to their silken beds,
 Those virgin lilies all the night
 Bathing their beauties in the lake,
 That they may rise more fresh and bright
 When their beloved Sun's awake."

T. MOORE, *Lalla Rookh*, p. 257.

"Farewell, ye vanishing flowers, that shone
 In my fairy wreath, so light and brief,
 Oh ! what are the brightest that e'er have blown
 To the lote-tree, springing by Alla's throne,
 Whose flowers have a soul in every leaf." (*Addenda V.*)

Lalla Rookh, p. 261.

"And amply Selim quaffs of each
 And seems resolved the floods shall reach
 His inmost heart—shedding around—
 A genial deluge, as they run,
 That soon shall leave no spot undrown'd
 For Love to rest his wings upon,
 He little knew how blest the boy
 Can float upon a goblet's streams,
 Lighting them with his smile of joy ;
 As bards have seen him in their dreams
 Down the blue Ganges laughing glide
 Upon a rosy lotus wreath,
 Catching new lustre from the tide,
 That with his image shone beneath."

Lalla Rookh, p. 299.

"Lakes that endlessly outspread
 Their lone waters, lone and dead,
 Their still waters,—still and chilly,
 With the snows of the lolling lily.

“Their sad waters, sad and chilly,
With the snows of the lolling lily.”

EDGAR ALLAN POE, *Dreamland*, p. 86.

The above description, in reference to the Lotos tribe, is so beautifully true to nature that it must not be passed over in silence. Much more is delicately hinted at here than is perhaps at first apparent. The time of year is late autumn—this is indicated not only by the chill here spoken of, but by the “lolling” of the lily. It trails along the wave, or droops beneath the surface, it can no longer bear up its head erect into air and light. The scene is accurately and vividly depicted—true to life in every particular, or perhaps I should rather say to death, for we seem to scent the incipient decay of vegetation, and the expression “sad waters” aptly portrays the gloom settling down over the wave on a late autumnal eve, when the sun has set, or is veiled in mist. (*Addenda VI.*)

LOTOS THE SHRUB.

The Lotos blooms below the barren peak,
The Lotos blows by every winding creek,
All day the wind breathes low with mellow tone
Thro' every hollow cave, and alley lone,
Round and round the spicy downs the yellow lotos dust is blown.
We have had enough of action and of motion, we
Rolled to starboard, rolled to larboard, when the surge was seething free,
Where the wallowing monster spouted his foam-fountains in the sea.
Let us swear an oath, and keep it with an equal mind,
In the hollow lotos-land to live and lie reclined
On the hills like gods together, careless of mankind.

The charmed sunset lingered low adown,
In the red west thro' mountain clefts the dale
Was seen far inland, and the yellow down
Bordered with palm, and many a winding vale
And meadow set with slender galingale,
A land where all things always seem'd the same.
And round about the keel with faces pale,
Dark faces pale against that rosy flame,
The mild-eyed melancholy Lotos-eaters came ;
Branches they bore of that enchanted stem,
Laden with flower and fruit whereof they gave
To each, but whoso did receive of them
And taste, to him the gushing of the wave
Far, far away, did seem to mourn and rave
On alien shores, and if his fellow spake
His voice was thin, as voices from the grave,

And deep asleep he seemed, yet all awake,
And music in his ears his beating heart did make.

TENNYSON, *Lotos-eaters*, pp. 59, 60.

By way of still further illustration of the symbolical connection of the lotus with Amenti, the unseen realm, compare the scene in Rider Haggard's *Cleopatra*, wherein (p. 37) Harmachis invokes the deities. (*Addenda VII.*)

"O Amen Osiris, the supreme in Amenti, hearken unto me.
"O Isis, great mother goddess, mother of the Horus, hearken unto me.
Let a sign be given me even now to seal my life to the life above.

* * * * *

"Behold a sign! Possess thyself in patience, Harmachis.'

"And as the voice spoke, a cold hand touched my hand, and left somewhat within it. Then the cloud rolled from the face of the moon, the wind passed, the pylon ceased to tremble, and the night was as the night had been. As the light came back, I gazed upon that which had been left within my hand. It was a bud of the holy lotus new breaking into bloom, and from it came a most sweet scent, and while I gazed, behold, the lotus passed from my grasp, and was gone, leaving me astonished."

HERODOTUS ON DIFFERENT KINDS OF GRAIN.

Others make barley and wheat their food. It is a disgrace to do so in Egypt, where the grain they live on is spelt which some call *zea*.—Herodotus, Lib. II, 36.

This statement of Herodotus has a foundation in fact, but is only partially true.

In the first place, Pliny shows that the *olyra* here mentioned is not rice nor the same as *zea*, as Herodotus supposed. And it is an idea equally extravagant to imagine that the Egyptians considered it a disgrace to live on wheat and barley.

Though the *olyra* or *doora* bread was eaten by the great mass of the Egyptians (the *olyra* being in point of fact the *doora* of modern Egypt, *Holcus sorghum*), and poor people may have used *doora* as at the present day, when they could not afford wheaten bread, as we are informed by Rawlinson, who also states that the *doora* is the only grain besides wheat and barley represented in the sculptures.

That both wheat and barley are noticed in Lower Egypt long before the time of Herodotus, we have the testimony of

Scripture, where in Exodus ix, 31, 32, in reference to the plague of the thunders and the hail it is recorded that "the flax and the barley was smitten, for the barley was in the ear, and the flax was boiled. But the wheat and the rye were not smitten; for they were not grown up." The barley harvest is the earliest of all, and takes place in the plain of Jericho at the close of the month of March.

Pliny's testimony, too, goes to show that *doora*, wheat, and barley, were all employed for food in Egypt, when (xviii, 7) he says "Far in Egypto ex olyrà conficitur," but not, of course, to the exclusion of other grain, as he notices wheat and barley there, and adds (xviii, 8), "Ægyptus similaginem conficit e tritico suo," and the paintings of the Thebaid prove that wheat and barley were grown extensively in that part of the country; they were among the offerings in the temples; and the king, at his coronation, cutting some ears of wheat, afterwards offered to the gods as the staple production of Egypt, according to the note in Rawlinson's Herodotus, vol. ii, p. 50, shows how great a value was set on a grain which the historian would lead us to suppose was held in abhorrence. It is likely enough that the attention of Herodotus might be chiefly arrested by the *doora*, as the appearance of that grain unseen in Greece and other more northerly climes, and reaching a great height, would present a novel sight to him.

With regard to the time of the *durra* harvest, my own observation scarcely tallies with the statement made by Rawlinson (*Ancient Egypt*, vol. i, pp. 160, 161), but discrepancy of impressions can, I take it, readily be reconciled if the information received be correct that the *durra* harvest in Upper Egypt takes place three times a year. This grain, according to Rawlinson, takes from three to four months to ripen, and if sown in October might be reaped in February. It is now, however, not sown till April, and we may perhaps conclude that the primary attention of the husbandman was directed in ancient as in modern times to the more valuable cereals, wheat and barley, which were required by the rich; and that the *doora*, which was needed only by the poor, was raised chiefly as an after crop. Wheat and barley would be put into the ground in November, and would then be left to the genial influences of sun and air, which under ordinary circumstances would ripen the barley in four, and the wheat in five months. No hoeing of weeds, no frightening of birds, no calling upon heaven for rain seems to have been

required. The husbandman might safely trust to nature for an ample return. Bounteous Mother Earth gave from her teeming breast "the staff of life" in prodigal abundance, and corn was gathered "as the sand of the sea," very much, till he "left numbering" (Gen. xli, 49). According to Pliny (*Nat. Hist.*, xviii, 7), the return on the corn sown was a hundred-fold. The grain, however was light.

In *Nine Hundred Miles up the Nile*, p. 115, I have recorded my first impressions of the *durra* fields. (*Addenda VIII*.)

Several *durra* fields succeed along the western bank. Respecting this grain, which is a species of millet, it may be mentioned that its growth is similar to that of the Indian corn, but that the plant reaches at least twice the height, and that the seeds, which its heavy head contains, are much smaller. The said head consists of a mass of seeds, not placed in regular rows, as is the case with Indian corn, but forming a densely packed cone. The harvest of the crop is going on now, but its cultivation would seem to be confined to some distance up the river, as it hardly if at all occurs in the neighbourhood of Cairo. I may mention here that the date was December 19th, and that the *durra* fields in question were situate from fifty to one hundred miles south of Cairo. Just as the lentils sold in the bazaars are of two colours, red and brown, so the heads of *durra*, consisting of masses of seeds, are of two colours, also red and yellow, but the yellow is by far the most ordinary and common tint. By yellow I do not mean of a bright yellow like Indian corn, but of the same colour as an ordinary grain of wheat. Each ripe head of *durra* must contain many hundreds of seeds, circular like small peas, constituting probably a far more prolific return than any other grain with which I am acquainted, but quite impossible to count, the head is so densely packed, unless it be picked to pieces while deliberately enumerated for the purpose. We are further informed in Rawlinson's *Ancient Egypt* that the *doora* harvest is represented on the monuments as taking place at the same time as the wheat harvest, but this is perhaps not intended as the assertion of a fact. In modern Egypt the chief harvest (namely, of the *doora*) is sown in April and reaped in July, and the ancient practice may have been similar. That the simultaneousness of the two harvests is not intended to be asserted as a fact I, for one, fully maintain. Ripe *durra* was sold in the bazaars of Keneh during my visit there in the month of December, but wherever

wheat is noticed or spoken of in the pages of my journal it is always "young corn," consisting of the tiny blade, whether in the plain of Geezeh or as forming part of the panorama obtained from the mountain of Lycopolis or elsewhere. Of course this verdant carpet, though consisting largely of wheat, did not consist solely of that grain, but of clover, lupins and vetches, beans and lentils, etc., too. To advert once more to *Nine Hundred Miles*, p. 160, on passing El Mataneh, say at a rough estimate, situate at a distance of a little under six hundred miles south of Alexandria, on December 28th, sugar-cane and *durra*—these two plants are the chief products planted in the neighbourhood, and the *durra* harvest is now in progress in several places on the eastern bank, and again pp. 171 and 172 of the same work, in connection with our visit to the temple of Edfou, "By reason of the toughness of the stem," the *durra* is cut with a short sharp sickle with serrated edge, and the heads are collected in palm-leaf baskets, while buffaloes, dromedaries, donkeys, and black goats browse eagerly on its refuse stalks that are lying about the stubble fields.

There is abundant evidence, carved as well as pictorial, on the ancient Egyptian monuments, that the Pharaohs themselves took part in the reaping of the harvest, as in one of the side chambers, for example, opening out of the fifth room in the temple of Edfou, is a monarch grasping ears of wheat with his left hand, while he cuts it with the sickle in his right. He is depicted with the ram's horns and orb of Ra, while another monarch stands before him wearing the combined crown. Several other side chambers and corridors contain the same sculptures again and again. To quote from Rawlinson once more, the wheat grown was always bearded, and comprised numerous varieties, one of which bore several ears upon a single stalk. It is, at any rate, always represented as bearded on the monuments. In Greece, moreover, while traversing the plain of Marathon on the 5th of June, I noted that the wheat in the corn fields there, while considerably exceeding in its height the stature of a man, and of which I gathered specimens of the ears, was likewise bearded. This variety is termed "rabbit wheat" in Cambridgeshire. While inspecting the monuments at Edfou, I noted, what Rawlinson has also observed, that the wheat therein represented was cut with a toothed sickle in the days of old as well as the ripened harvest of to-day during my visit. Possibly the toughness of the stem, which required the employ-

ment of such a reaping hook, may be due to the presence of silix which the stalk has incorporated with itself out of the surrounding soil. To resume, my own observation respecting the various cattle greedily devouring the stems of the *durra* in season of harvest is corroborated by Wilkinson in vol. iv of his *Ancient Egypt*, when he states that the wheat straw which was cleared from the fields after the reaping of the ears was used as well as clover, lupins, and vetches to furnish provender for the cattle during the time of the inundation.

The seeds of the Indian corn furnish a large portion of the food of the Nubian population at the present day. Circular woven disks, which form the sole furniture of several of the Nubian dwellings, and are often stained in patterns, are suspended like shields against the wall, and not unfrequently hung horizontally from the ceiling, and then employed for the purpose of holding dates or Indian corn, which is for the most part consumed just as taken from the husk, without even being ground into flour. These circular disks are called *moholads*, and I have one or two of them hanging up against the wall of my hall at the present moment.

HERODOTUS ON THE PAPYRUS.

The byblus (papyrus), which grows year after year in the marshes, they pull up, and cutting the plant in two, reserve the upper portion for other purposes, but take the lower, which is about a cubit long, and either eat it, or else sell it. Such as wish to enjoy the byblus in full perfection, bake it first in a closed vessel heated to a glow.—Herodotus, Lib. II, c. 92.

The *Cyperus papyrus* now only grows in the Anapos, near Syracuse, being no longer a native of Egypt. It is said to have been found in a stream on the coast of Syria as in Pliny's time (xiii, 11). The use of the pith of its triangular stalk for paper, made it a very valuable plant, and the right of growing the best quality and of selling the papyrus made from it, belonged to the government. It was particularly cultivated in the Sebennyitic nome, and various qualities of the paper were made. Herodotus is wrong in calling it an annual plant.

In addition to the above note is Rawlinson's Herodotus, vol. ii, the author again refers to the plant in his *Ancient Egypt*, vol. i, p. 55: "The byblus or papyrus (*Cyperus papy-*

rus), anciently so common in Egypt, is not now found within the limits of the country. It is a tall smooth flag or reed, with a large triangular stalk, inside of which is contained the pith from which the Egyptians made their paper. The paper was manufactured by cutting the pith into strips, arranging them horizontally, and then placing across them another layer of strips, uniting the two layers by a paste, and subjecting the whole to a heavy pressure. The upper and middle portions of the reed were employed for this purpose; the lower portion, together with the root, was esteemed a delicacy, and was eaten after it had been baked in a close vessel. The papyrus needed a moist soil, and was carefully cultivated in the shallow lakes and marshes, more especially those of the Sebennytic nome in the central part of the Delta. There was a second coarser kind, probably the *Cyperus dives* of botanists, which was employed in the construction of boats, of sails, of mats, baskets, sandals, and the like.

Extinction of the papyrus foretold by Isaiah, xix, 7.—"The 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."

Habitat of the papyrus.—Theophrastus is correct in saying it grew in shallow water, or in marshes, according to Pliny, and this is represented on the monuments, where it is placed at the side of a stream or in irrigated lands.

Present localities of the papyrus.—The famous papyrus of Egypt, which formerly grew like a forest on the banks of the Nile, is now extinct in Egypt, though still found in the marshes of Nubia. It grows luxuriantly in a swamp at the north end of the plain of Gennesaret, and covers acres of marsh by the water of Merom, but exists nowhere else in Asia. It is called by the Arabs *babber*, *i.e.*, papyrus. It has a triangular stem eight to ten feet high, with bushy top.

My own observation of the papyrus.—The only place where I ever saw papyrus growing in the East was the small garden in front of Maurice Bey's house in Cairo. The said residence was decorated and furnished in the Persian style, and is a perfect museum of art treasures. The papyrus was growing by the edge of a small basin of water, and if not actually the famous species, was at any rate a species closely allied to it.

Confusion between the Cyperi.—It is evident that other *cyperi*, and particularly the *Cyperus dives*, were sometimes confounded with the *Cyperus papyrus*, the papyrus or *byblus*

hieraticus of Strabo, and when we read of its being employed for mats, sails, and baskets, we may conclude that this was an inferior kind mentioned by Strabo, and sometimes a common *cyperus* which grew wild, as many still do, was thus employed in its stead.

The true papyrus a cultivated species.—Pliny says the papyrus was not found about Alexandria, because it was not *cultivated* there, and the necessity of this is shown by Isaiah's mention of the paper reeds by the brooks and everything *sown* by the brooks.

Mode of making the paper.—According to Pliny (xiii, 11), by cutting thin slices of the pith, and laying them in rows, and these being crossed with other slices, the whole was made to adhere by great pressure.

Mention of the papyrus in Scripture.—According to the list of trees, plants, flowers, etc., in the Teacher's Bible, there are six Hebrew words used of the rush genus, and variously translated somewhat indiscriminately.

The first is göme, employed Exodus ii, 3, of the ark of bulrushes, and Job viii, 2, "Can the rush grow up without mire?" This is θίβη πάπυρος, *Cyperus papyrus*.

According to the same authority the Aröth of Isaiah xix, 7, is wrongly translated *paper reeds*, as the papyrus has already been mentioned. It is τό ἄχι τὸ χλωρόν, the green herbage, which abounds in marshy places.

The third kind is achu, or ἄχι βούτομον. Achu is not a Hebrew word but an Egyptian. The plant is either the *Cyperus esculentus*, the κύπειρον of Homer, a species of sedge above noticed as not only found at Sparta but common in South Italy, or else the *Butomus umbellatus*, the flowering rush, occurring in Egypt as well as in Britain, and on the continent of North Europe. Cf. Job viii, 11, "Can the flag grow without water?" The same word is translated "flag" in Job, but "meadow" in Genesis xli, 2, as that on which Pharaoh's fat kine fed.

The fourth word is το ἔλος, which in Exodus ii, 3, 5, is rendered "flags," in which Moses's ark was concealed by the river bank, but more correctly "weeds" in Jonah ii, 5, at the bottom of the sea. "Ἐλος is a general term for water weeds, whether seaweed or the rank marsh vegetation of the river's bank; and with regard to the above-mentioned achu, the rendering of "flag" is clearly the correct one and not that of meadow, as it is plainly a specific plant, and classed with the papyrus.

The fifth word, *agmôu*, reed or cane, occurs twice in a proverb, Isaiah ix, 14, and xix, 15, "Head and tail," "Branch and rush," *i.e.*, top and bottom. It occurs in Job in the phrase "bowing the head like a bulrush," whence it evidently had a high stem surmounted with a tuft. It is the *arundo donax* of botanists, and probably the common reed of Egypt and Palestine, a tall thin cane, 12 feet high, with a bushy blossom bending flat before the wind and rising again. "The reed shaken with the wind," Matthew xi, 7, growing luxuriantly by the Dead Sea and by the Jordan. On December 29th, 1883, I myself gathered the bushy blossoms of this *arundo* at Esneh, where it grew to twice the height of a man in the shallow waters by the west bank of the Nile.

The sixth word is *κάλαμος*, *calamus*, a reed, and this is the general term for a stem or stalk, as a stalk of wheat in Pharaoh's dream (Genesis xli, 5, and 22). It is also used (Exodus xxv, 31) for the stem of a candlestick (Ezekiel xl, 5), for a measuring rod.

Ancient date of the papyrus.—The use of the papyrus as writing material was common (together with the reed pen, palette, and other implements of later Egyptian scribes, in the time of the earliest Pharaohs, at least as early as the IIIrd and IVth dynasties.

Different qualities of the papyrus according to Pliny.—(1) Largest in old times, the Hieratic (for holy purposes).

- (1) Afterwards the best was called the Augustan.
- (2) The Livian.
- (3) The Hieratic.
- (4) Amphitheatric (from the place where made).

Fannius at Rome made an improved kind called Fannian. That not passing through his hands being still called Amphitheatric.

Saitic, a common kind from inferior stalks.

Emporetic of shops for packing, not for writing upon.

Breadth of best 13 fingers (about $9\frac{3}{4}$ inches) broad.

Hieratic	11	„	„
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Fannian	10	„	„
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Amphitheatric	9	„	„
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Saitic less.

Emporetic, used for business, not above 6.

But some sheets of Egyptian papyrus were much larger than the best of Roman time. The Turin papyrus, dating

from the early part of the reign of Rameses II, was at least 14½ inches in breadth, and other extinct ones of the time of the XIXth dynasty are reported to be 17 and 18 inches respectively.

Papyrus as furnishing a model for artistic representation.—The instances wherein the papyrus is copied as a device for the columnar capitals in Egyptian architecture are too numerous to be referred to here. The brief mention of the fact that I noticed it in the shrines of Esneh, Edfou, and Philæ will suffice. Nor are the pictorial representations of it less abundant in the mural paintings and hieroglyphics of the ancient monuments.

HERODOTUS ON THE ACACIA.

It is noteworthy to allude to the vessels used in Egypt for the transport of merchandise, as Herodotus, Lib. II, c. 96, speaks of them as made of the *Acantha* (Thorn), a tree from which there exudes a gum. It is the modern *Sont* or *Mimosa* (*Acacia*) Nilotica, groves of which are still found in Egypt, as according to Strabo, Athenæus, and others of old. This was Pliny's *Spina Ægyptiaca*, called by Athenæus "*Acantha*," and described by him as a round fruit on small stalks. The Bedouin dragoman of the present day calls it *sont*, or gum arabic, and there are two or three circumstances of interest in connection with this tree, first, that the boats of the Nile are still built with planks of the *sont*, as in the days of Herodotus, second, that there is to a certain extent the same arrangement in building the boats now as then, for according to Rawlinson's Herodotus, the planks, arranged as Herodotus states, like bricks, appear to have been tied to several long stakes, fastened to them internally. Something of the kind is still done when they raise an extra bulwark above the gunwale. Then again the *sont* tree, occurring as it does in considerable numbers, presents quite a noticeable feature in the landscape, with the vivid green of its foliage contrasting with the darker hue of the palm trees. In its growth and size as a rule the *sont* tree bears some resemblance to a hawthorn, and the blossoms of the two trees, which in the case of the *sont* are of a dusky white, are of about the same dimensions. But the surpassing interest of the *sont* tree rests in the fact that the formidable prickles, an inch or more in length, with which this shrub is armed, are commonly supposed to have furnished the crown of thorns. Its fre-

quency in the desert has already been referred to, and it is likewise far from uncommon in South Europe, where I have noticed it fringing the ascent to the old quarter of the gipsies in the outskirts of Granada, and have likewise gathered it on the approach to Baiæ in the Bay of Naples. The species of acacia or mimosa, to which genus the sort tree belongs, are numerous in the Nile valley, and form no inconsiderable part of its characteristic vegetation, though differing greatly in size and form of foliage and flower in the respective dimensions of the trees, and indeed in most superficial points of likeness. I append a list of those that I have personally observed.

Acacia Farnesiana, Isle of Roda, Fitneh.

„ *Lebbek*, Geeseh and Port Said, etc., Lebbekh.

Parkinsonia aculeata, Road to Heliopolis.

Sesbania Ægyptiaca „ „

Acacia tortilis „ „

Cassia obovata, Minieh, Upper Egypt and Gerf Hossayn,
Nubia.

THE TAMARISK.

μυρίκη (*Myrica Lat.*).

The tamarisk, a shrub of common occurrence in the desert, as also on the shores of the Mediterranean, is referred to by Herodotus, Lib. II, 96, in his description of Egyptian boats on the Nile. Down stream, he says, they are managed as follows: There is a craft belonging to each made of the wood of the tamarisk, fastened together with a wattle of reeds, and also a stone bored through the middle, about two talents in weight. In a footnote appended to this chapter Rawlinson informs us that the tamarisk raft before the head of the boat is dispensed with by modern Egyptian boatmen, but that they make use of the stone in coming down the stream, to impede the boat, which is done by suspending it from the stern. When the rowers are tired and boats are allowed to float down, they turn broadside to the stream, and it was to prevent this that the stone and tamarisk raft were applied. The Professor in another work (vol. i of his *Ancient Egypt*) gives another use to which the tamarisk is applied, inasmuch as he includes it in a list of medicinal plants. In traversing the Suez Canal the tamarisk (*Tamarix macrocarpa*) was a most familiar and frequently recurring shrub.

Thus in *L' Orient*, p. 16, the following notices of it occur:—

“The only shrub to be seen on either hand is dwarf tamarisk, sometimes consisting of a mere fringe, and anon widening into an extensive low growing scrub, like a furze common.”

“The clumps of tamarisk in the distance resemble small islets in a lake, owing to the mirage occasioned by the heat.”

And again, p. 19:

“Endless slight undulations and sandy ridges clothed with clumps of tamarisk in blossom, and other shrubs gray-green in tint and with prickly stems.”

“These clumps of tamarisk, etc., often surround conical mounds of sand, where it has been silted up by the winds in the middle. The mud bank on the east side is now covered with a continuous belt of tall flags, and the tamarisk, of course, interspersed as before.”

My own specimens of *Tamarix macrocarpa* were gathered in the desert close to El Ferdane on the Suez Canal 33 miles south of Port Said. Though occurring frequently at our own seaside resorts, it is only naturalised and not a native of the English coast. It is somewhat remarkable that a well known shrub growing abundantly on our moors

and marshy districts should derive its ordinary name, "Bog Myrtle," from the myrtle of which the Greek appellation is *μυρσίνη* or *μυρρίνη* in Attic Greek, probably from the fact of its foliage exhaling a powerful scent, and its botanical title *Myrica gale* from *μυρίκη*, which is, as above stated, the Greek for tamarisk. To avoid any confusion, however, be it noted, *en passant*, that *μυρρίνη* and *μυρίκη*, the myrtle and the tamarisk, have no similarity except in their respective names.

It is worth remarking in conclusion that Odysseus (*Iliad*, Lib. X, 465-467) raises aloft and casts spoils and armour of the dead body of the spy Dolon whom he had just slain on the tamarisk bed, heaping over them reeds and blooming sprigs of the tamarisk. Reeds or flags are mentioned here in conjunction with the tamarisk, just as I noticed their joint growth on the banks of the Suez Canal. And the Scholiast on the passage describes *μυρίκη* "tamaricem seu tamariscum, humida loca amantem. Cogitandum autem est eos incedere locis paludosis, in quæ exundare solet Simois."

So in Lord Derby's rendering of the passage—

"Thus as he spoke, amid the tamarisk scrub
Far off he threw the trophies; then with reeds,
And twigs new broken from the tamarisk boughs,
He set a mark, lest in the gloom of night
Returning they might haply miss the spot."

So once more in *Iliad*, xxi, 350-352, *apropos* of the banks of the river Xanthus, elms and willows are mentioned along with the tamarisk, and moreover, the lotus, rushes, and galingal, Lord Derby's version—

"Burnt were the willows, elms, and tamarisk shrubs,
The lotus, and the reeds, and galingal,
Which by the lovely river grew profuse."

And to end a long story, Roman bards, equally with those of Greece, have been fain to celebrate the tamarisk, inasmuch as Virgil sings of it in four passages of his *Eclogues*—

"Non omnes arbusta juvant humilesque myricæ."

Ecl. iv, 2.

"Te nostræ, Vare, myricæ,
Te nemus omne canet."

Ecl. vi, 10, 11.

"Pinguia corticibus sudent electra myricæ."

Ecl. viii, 54.

"Illum etiam lauri, etiam flevere myricæ."

Ecl. x, 13.

HERODOTUS ON CASTOR OIL.

Ἄλειφατι δὲ χρέωνται Αἰγυπτίων οἱ περὶ τὰ ἔλαια οἰκέοντες ἀπὸ τῶν σιλλικυπρίων τοῦ καρποῦ, τὸ καλεῦσι μὲν Αἰγύπτιοι κίκι, ποιεῦσι δὲ ὄδε. παρὰ τὰ χεῖλα τῶν τε ποταμῶν καὶ τῶν λιμνέων σπείρουσι τὰ σιλλικύπρια τὰυτα, τὰ ἐν Ἑλλησι αὐτόματα ἄγρια φύεται· ταῦτα ἐν τῇ Αἰγύπτῳ σπειρόμενα καρπὸν φέρει πολλὸν μὲν, δυσᾶδεα δέ· τοῦτον ἐπεὰν συλλέξωνται, οἱ μὲν κόψαντες ἀπιποῦσι, οἱ δὲ καὶ φρύξαντες ἀπέψουσι, καὶ τὸ ἀπορρέον ἀπ' αὐτοῦ συγκομίζονται. ἔστι δὲ πῖον καὶ οὐδὲν ἦσσον τοῦ ἐλαίου τῷ λύχνῳ προσηνές, ὁδμὴν δὲ βαρέαν παρέχεται.

Herodotus, Lib. II, c. 94.

HERODOTUS ON THE LOTUS.

Ἄτὰρ πρὸς εὐτελέην τῶν σιτίων τάδε σφί ἄλλα ἐξεύρηται. ἐπεὰν πλήρης γένηται ὁ ποταμὸς καὶ τὰ πεδία πελαγίσῃ, φύεται ἐν τῷ ὕδατι κρίνεα πολλὰ, τὰ Αἰγύπτιοι καλέουσι λωτόν. Ταῦτ' ἐπεὰν δρέψωσι, αὐαίνουσι πρὸς ἥλιον, καὶ ἔπειτα τὸ ἐκ τοῦ μέσου τοῦ λωτοῦ, τῇ μήκῳ ἐὼν ἐμφερές, πτίσαντες ποιεῦνται ἐξ αὐτοῦ ἄρτους ὀπτοὺς πυρί. ἔστι δὲ καὶ ἡ ῥίζα τοῦ λωτοῦ τούτου ἐδωδίμη, καὶ ἐγγλύσσει ἐπιεικέως, ἐὼν στορογγύλου, μέγαθος κατὰ μῆλον. Ἔστι δὲ καὶ ἄλλα κρίνεα ῥόδοισι ἐμφερέα, ἐν τῷ ποταμῷ γνωόμενα καὶ ταῦτα, ἐξ ὧν ὁ καρπὸς ἐν ἄλλῃ κάλυκι παραφυομένη ἐκ τῆς ῥίζης γίνεται, κηρίῳ σφηκῶν ἰδέην ὁμοιώτατον ἐν τούτῳ τρωκτὰ ὅσον τε πυρῆν ἐλαίης ἐγγίνεται συχνά· τρώγεται δὲ καὶ ἀπαλὰ ταῦτα καὶ ἄνα.

Herodotus, Lib. II, c. 92.

HERODOTUS ON DIFFERENT KINDS OF GRAIN.

Ἀπὸ πυρῶν καὶ κριθέων ὄλλοι ζώουσι, Αἰγυπτίων δὲ τῷ ποιευμένῳ ἀπὸ τούτων τὴν ζῶην ὄνιδος μέγιστόν ἐστι, ἀλλὰ ἀπὸ ὀλυρέων ποιεῦνται σιτία, τὰς ζειὰς μετεξέτεροι καλέουσι.

Herodotus, Lib. II, c. 36.

HERODOTUS ON THE PAPYRUS.

Τὴν δὲ βύβλον τὴν ἐπέτειον γινομένην ἐπεὰν ἀνασπάσῃσι ἐκ τῶν ἐλέων, τὰ μὲν ἄνω αὐτῆς ἀποτάμνοντες ἐς ἄλλο τι τράπουσι, τὸ δὲ κάτω λελειμμένον ὅσον τε ἐπὶ πῆχυν τρώγουσι καὶ πωλέουσι. οἱ δὲ ἂν καὶ κάρτα βούλωνται χρηστῇ τῇ βύβλω χρᾶσθαι, ἐν κλιβάνῳ διαφάνει πνίξαντες οὕτω τρώγουσι.

Herodotus, Lib. II, c. 92.

DESCRIPTION OF THE LOTOPHAGI.

Αὐτὰρ δεκάτη ἐπέβημεν
γαίης Λωτοφάγων, οὔτ' ἄνθινον εἶδαρ ἔδουσιν.

Hom. Od., Lib. IX, 83, 84.

Οὐδ' ἄρα Λωτοφάγοι μῆδονθ' ἐτάροισιν ὄλεθρον
ἡμετέροις, ἀλλὰ σφι δόσαν λωτοῖο πάσασθαι.
τῶν δ' ὅστις λωτοῖο φάγοι μελιηδέα καρπὸν,
οὐκέτ' ἀπαγγεῖλαι πάλιν ἤθελεν, οὐδὲ νέεσθαι·
ἀλλ' αὐτοῦ βούλοντο μετ' ἀνδράσι Λωτοφάγοισιν
λωτὸν ἐρεπτόμενοι μενέμεν, νόστου τε λαθέσθαι.

Hom. Od., Lib. IX, 92-97.

Ἄκτῃ δὲ προέχουσαν ἐς τὸν πόντον τούτων τῶν Γινδάνων νέμονται Λωτοφάγοι, οἱ τὸν καρπὸν μῦνον τοῦ λωτοῦ τρώγοντες ζώουσι· ὁ δὲ τοῦ λωτοῦ καρπὸς ἐστὶ μέγαθος ὅσον τε τῆς σχίνου, γλυκύτητα δὲ τοῦ φοίνικος τῷ καρπῷ προσείκελος. ποιεῖνται δὲ ἐκ τοῦ καρποῦ τούτου οἶ Λωτοφύγοι καὶ οἶνον. Λωτοφάγων δὲ τὸ παρὰ θάλασσαν ἔχονται Μάχλυες, τῷ λωτῷ μὲν καὶ οὗτοι χρεώμενοι, ἀτὰρ ἦσαν γὰρ τῶν πρότερον λεχθέντων.

Herodotus, Lib. IV, 177, 178.

THE LOTUS.

Kingsley's *Hypatia*, pp. 176 and 177.

“Yes”—she went on, after the method of her school, who preferred, like most decaying ones, harangues to dialectic, and synthesis to induction. “Look at yon lotus flower, rising like Aphrodite from the wave in which it has slept throughout the night, and saluting, with bending swan-neck, that sun which it will follow lovingly around the sky. Is there no more there than brute matter, pipes and fibres, colour and shape, and the meaningless life-in-death which men call vegetation? Those old Egyptian priests knew better, who could see in the number and the form of those ivory petals, and golden stamina, in that mysterious daily birth out of the wave, in that nightly baptism, from which it rises each morning, reborn to a new life, the signs of some divine idea, some mysterious law, common to the flower itself, to the white-robed priestess who held it in the temple rites, and to the goddess to whom they both were consecrated . . . The flower of Isis! . . . Ah!—well. Nature has her sad symbols, as well as her fair ones. And in proportion as a misguided nation has forgotten the worship of her to whom they owed their greatness, for novel and barbaric superstitions, so has her sacred flower grown rarer and more rare till now—fit emblem of the worship over which it used to shed its perfume—it is only to be found in gardens such as these,—a curiosity to the vulgar, and, to such as me, a lingering monument of wisdom and of glory passed away.”

Philammon, it may be seen, was far advanced by this time, for he bore the allusions to Isis without the slightest shudder. Nay—he dared even to offer consolation to the beautiful mourner.

“The philosopher,” he said, “will hardly lament the loss of a mere outward idolatry. For if, as you seem to think, there were a root of spiritual truth in the symbolism of nature, that cannot die, and thus the lotus flower must still retain its meaning, as long as its species exists on earth.”

Whittier's Poetical Works, p. 166

The World's Convention.

"Nor all unmindful, thou, the while,
Land of the dark and mystic Nile!
Thy Moslem mercy yet may shame
All tyrants of a Christian name,
When in the shade of Gizeh's pile
Or where from Abyssinian hills
El Gezek's upper fountain fills,
Or where from mountains of the moon,
El Abian bears his watery boon.
Where'er thy lotus blossoms swim,
Within their ancient hallowed waters,
Where'er is heard the Coptic hymn,
Or song of Nubia's sable daughters," etc.

p. 354. *Summer by the Lake side.*

"This western wind hath Lethæan powers,
Yon noonday cloud nepenthe showers,
The lake is white with lotus-flowers."

ADDENDA I.

Only three of these seven specific names occur in classical Latin, to wit, cyane, cyaneus, cyanus. As in the classics cœruleus is so often used as Latin equivalent of *κυάνεος* that cyaneus is rarely employed.

Only three also of the nine scientific terms in connection with nymphæ occur in classical Latin, to wit, nymphæ, nymphalis, and nymphæa.

In classical Greek there are about 30 words compounds of cyanos and cyaneos, and a similar number of words, compounds of *νύμφη*.

But the classical compounds are for the most part not the same as the scientific ditto.

ADDENDA II.

His (namely, of Horus) is the office assigned to Hermes in Greek mythology, that of *πομπαῖος*, the escorter, *ψυχόποπος* escorter of souls, *ψυχάγωγος*, leader of souls to the nether world into the presence of Osiris. He is seated on the flower that his sire Osiris calls into being from the depths of the river's flood, or he bears it in his hand as an offering or the departed ones, whose souls he is supposed to conduct, have, as a latest tribute, wreaths of its buds and tendrils twined around their necks in the vague undefined yearning for another life.

ADDENDA III.

Ερως or Love dissipating the shades of night. So in the celebrated Parabasis of the chorus of the birds of Aristophanes. "Love with his pinions all glittering with gold is hymned as springing from the wind egg of Chaos and of Night."

ADDENDA IV.

"*Ἀθῶνον εἶδαρ*. Vegetable as opposed to animal food is simply meant according to Liddell and Scott, referring to this passage where the esculent lotus is termed *Ἀθῶνον εἶδαρ*.

ADDENDA V.

"To the *lote-tree* springing by Alla's throne,
Whose flowers have a *soul* in every leaf."

Lalla Rookh, p. 261.

Undercurrent of thought here connecting the lotus with the unseen world. Cf. Rev. xxii. Leaves of tree of life for healing of the nations.

ADDENDA VI.

Another typical tending towards the unseen. The waters are sad, are chilly, flower no longer erect, no more the sunlit sparkle of the wave. As the world's inhabitants wax feeble, the world loses its delights for them.

Utter confusion of localities in Tennyson's poem of the *Lotos-eaters*. "The Lotos blows by every winding creek." This must refer to the water lily, and to Egypt. "The yellow lotos dust is blown." This also must refer to the pollen from off the corolla of the water lily. On the other hand "the spicy downs" are typical of Greece and the Greek islands from the scented undergrowth of cistus, myrtle, etc., so abundant there.

Again,

"In the red west thro' mountain depth the dale was seen far inland,"
may refer to Cyrene but cannot possibly to Egypt.

"The yellow down bordered with palm,"

may be true of Cyrene as well as of Egypt, but the picture of

"Meadow set with slender galingale,"

is that of Italy or Greece.

And once more—

"Branches they bore of that enchanted stem
Laden with flower and fruit,"

can only refer to North Africa, where both Homer and Herodotus agree to place the Lotophagi.

Yet again, in reference to pages 90 and 91, the essential point of Tennyson's poem is that he appears constantly to link the idea of the Lotos-eaters to that of another life. Witness such expressions as,—

"Enough of action and of motion."

"Charmed sunset."

"Red west."

"Faces pale."

"Alien shores."

"Voice was thin."

"As voices from the grave."

"Deep asleep."

"Yet all awake."

ADDENDA VII.

When Harmachis prays, "Let a sign be given and even now to seal my life to the life above." The sign granted, lo and behold! is the lotus.

Harmachis disappears from sight of men while initiated into the mysteries of Isis concerning the higher life. The vision he is accorded of the same is soon lost to his view, and the lotus, type of the unseen, vanishes from his hand. Not without significance is he named Harmachis (Hor-em-akhu), Horus on the horizon. Like his namesake Horus, the divinity not in full light of the zenith, not surrounded by the midday blaze.

ADDENDA VIII.

Respecting *yellow durra*, compare Virg. Gen., S. 73.

"Ibi *flava* seres mutato sidere farra."

The CHAIRMAN (D. HOWARD, Esq., F.C.S.).—It is always particularly interesting, when those who have the skill, will study the side-notes of Herodotus, that wonderfully minute observer and accurate reporter. The interest of these little notes on plants is very great, especially throwing so much light, as they do, on ancient botany. How it came about that Herodotus stated that wheat and barley were not eaten or were not appreciated in Egypt, one does not quite discover, but no doubt he was told so. I believe nowadays it is considered that his Greek injures the correct Attic Greek of the modern school boy; happily in my days Attic Greek was not thought much of, and we were allowed to read Herodotus, to our great enjoyment.

T. CHAPLIN, Esq., M.D.—I think I may venture to say that we may believe Herodotus was not altogether misinformed or mistaken about the disgrace which attached to the eating of wheat and barley. Something of the same kind exists at the present day in Oriental countries. It comes about in this way; wheat and barley are cultivated by the poor inhabitants of Eastern

countries and are looked upon as the diet of the rich, and for the poor man to consume the diet of the rich is considered a disgrace. In the same way it is considered a disgrace, or disgracefully extravagant for the fellah to eat fowls or their eggs, which are regarded as the food of the rich. It is not that the poor peasants do not like them, but they would not like to eat them any more than a poor person in Whitechapel would like to dress in silks and satins. We are much indebted to Dr. Walker for his paper and its interesting and valuable information. I was almost in hopes that he would have said something about the castor oil plant having been regarded by many people as Jonah's gourd. It is a very old opinion that the castor oil plant was the gourd which the Almighty caused to grow up to give shade to the disheartened prophet. In one of the Mishna treatises the question is asked, "With what should lamps be lighted on the Sabbath?" And one answer is, that they are not to be lighted with the oil of *kik*, which is considered to be the castor oil plant, and to be identical with the word used in the Bible for the gourd of Jonah. A celebrated Rabbi explains that the oil drawn from this plant is meant, and it is curious that the Greek word *κικι*, which means the castor oil berry, is almost identical with this ancient Hebrew word *kik* or *kikion*. The Latin term *Ricinus*, the castor oil plant, is not very improbably a corruption of the word *kiki*, the first *K* being turned into *R*. The Greek *κικι* also is equivalent to *κροτών*, which signifies a *tick*, and this word used to be applied to the castor oil plant, probably because the seed of the castor oil plant does strongly resemble a tick, as shown in the bottle before us. The Latin word also signifies a *tick*, as well as the castor oil plant.

I should like to hear a little more about the Lotus-eaters. I am rather interested in those people, and have a sympathetic feeling with them. They were usually contented if they had something sweet to eat, so much so that they were ready to abandon the cares and anxieties of life and even were willing to hear nothing more of their own country. I wish the author would tell us what he thinks the plant is that furnished the sweet fruit to the Lotus-eaters. It is often considered to be the tree known as the *dôm*, the fruit of which is certainly very sweet, though I should not say so sweet and pleasant as to cause men to forget everything else but the pleasure of eating it. Not improbably the lotus was the date fruit, which is very abundant in the island of Jerbá, where was the chief resort of the Lotus-eaters.

The AUTHOR.—I think most probably that *kiki* is the gourd of Jonah.

With regard to the Lotus-eaters, the shrub that produces the lotus, there is an ancient belief that it occasioned complete lethe or forgetfulness of all past life. (Lib. ix, 83-102.) Tennyson follows the old idea evidently, from the 9th Book of Homer's *Odyssey*, though he made such a strange combination of different kinds of plants and the scenery of various countries. In reference to the passage from Homer's *Odyssey* as quoted in this paper concerning the people, $\delta\iota\tau' \alpha\nu\theta\iota\nu\omicron\nu\epsilon\iota\delta\alpha\pi \epsilon\epsilon\theta\upsilon\sigma\alpha\iota\nu$, Herodotus (iv, 177) mentions these same Lotophagi as occupying the coast that projects to the sea in front of the Gindanes. They subsist only on the fruit of the lotus, and the fruit of the lotus is equal in size to the mastic berry, and in sweetness it resembles the fruit of the palm tree. I do not know of any author who has alluded to the fruit of the lotus being the produce of either the date or the *dóm* palm. I think it is generally regarded as having been the fruit of a plant, not that of a full-sized tree. He speaks of another people, the Machlyes, adjoining the Lotophagi on the sea coast, who also feed on the lotus, but to a smaller extent than those already mentioned.

The Meeting was then adjourned.