from the Transactions, of our Institute? I have great hopes in this direction. My son in China is now studying for this special translation work, and when I go back I shall certainly suggest to him that one of the most valuable works to be translated into that language would be the Victoria Institute Papers. I thank God for this Institute—may it live long and prosper. I cordially second this resolution. [Resolution carried nem. con.]

Rev. Prebendary Robinson Thornton, D.D.—I rise to return thanks on behalf of the Honorary Officers and Council, and do so with great pleasure. I can assure you that all who are connected with the working staff, so to speak, of the Institute, are very much obliged to you for your very kind appreciation of their work. It has been to us all a labour of love and we shall be inspired by your kind reception of our efforts.

The President.—It is a matter of much regret to Dr. Naville that he is not able to be with us to-night; but by his special wish the Address which he has been so kind as to prepare will be read by the Rev. W. Wright, D.D.

The Rev. W. Wright, D.D.—I consider it a very high honour, as it is to me a sincere pleasure, to be asked to read this extremely interesting Address.

THE ROUTE OF THE EXODUS.

By Edouard Naville.

THE route which the Israelites followed when they were leaving Egypt is a topic on which travellers and commentators of Scripture have dwelt at great length, and on which they have put forth most divergent views. Though there are still many doubtful points on which we cannot pronounce with certainty, the excavations made recently have thrown much light on several points of the Exodus, especially on the first days of the journey. They have contributed to elucidate the passage of the Red Sea, the crowning episode, the historical character of which is not denied even by authors of well known rationalistic tendencies.* This great event I consider also as the limit of my subject. I do not intend to follow the Israelites beyond the

borders of Egypt, but I should like to describe how the scriptural narrative of the Exodus seems to me to be explained in the light of the late discoveries in Egypt.

I shall recall only in a few words what concerns the arrival of the Israelites in Egypt. Most Egyptologists have adopted as correct the statement for which we are indebted to the Byzantine chronographer Syncellus, who says that it was under the king Apophis, in Egyptian Apepi, that Joseph attained the high dignity which is described in Scripture. Apepi is known to us as one of the last, perhaps even the very last, Hyksos king. The Hyksos were foreign invaders, and, in all probability, Mesopotamians, who had been driven out of their country by great events which took place in the valley of the Tigris and the Euphrates. They were a mixed race; the mass of the population seems to have been Semitic, while their rulers, judging from the type of their faces, such as they are seen on the monuments of Tanis and Bubastis, were of Turanian origin. Undoubtedly their invasion had been marked, as is related by Manetho, by destruction, plunder, and violence, as is usual in Eastern wars; but the Hyksos had soon yielded to the influence of the more cultivated race over which they reigned. The conquered had by degrees overcome the conquerors, who had adopted the customs, the language, the writing, the civilization of the Egyptians; all except the religion. For, notwithstanding several centuries of dominion, the religion still raised between the Hyksos and their subjects an insuperable barrier. “They reigned ignoring Ra,” meaning in hostility against the Sun-god. Such is the way in which a native queen describes their rule two centuries after the first rebellion against them.

It is probable that the fact of the Hyksos kings being Mesopotamians, contributed to dispose them favourably towards the Hebrews who had the same origin. It is well known that for Abraham and his family, and especially Jacob, Mesopotamia, Aram Naharaîm, was above all their country,* whereas they considered themselves as strangers in Canaan. “An Aramean ready to perish, or, wandering, was my father,” says the author of Deuteronomy.† The tradition lasted down to the time of Josephus. This Jewish writer relates the events of Genesis in a narrative which is parallel to that of Scripture, and which is based on the Holy text. When

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* Genesis xxiv., 4, 11, etc.
† xxvi., 5, margin of the Revised Bible.
he reaches the point of the arrival of Jacob into Egypt, like Genesis also he interrupts his narrative in order to introduce the description of the family of the patriarch; but before beginning it he gives the following curious reason for quoting all the names: "I thought it necessary to record those names, in order to inform those who do not suspect it, that we are Mesopotamians and not Egyptians."

It is easy to notice in the narrative of Scripture that there is a difference between the king and his subjects. The native Egyptians could not look favourably on the establishment of strangers who belonged to the race whose rule they hated. "Every shepherd is an abomination unto the Egyptians." I believe that this passage must not be understood as referring to all shepherds in general. We must remember that in the Egyptian inscriptions the most usual name of the Hyksos is the shepherds or the nomads of Asia, and it is natural that the Egyptians should have felt towards the Hebrews the same antipathy as towards their rulers who had the same origin as the Hebrews, and who were hostile to the Egyptian gods. This is the origin of the ill will, the δυσκολία, which according to Josephus existed between the Egyptians and the Hebrew immigrants.

The Israelites were settled in the land of Goshen. The excavations which I made in 1885 at Saft el Henneh, six miles East of Zagazig, have enabled me to determine the exact site of the land of Goshen, at least of the territory which was originally assigned as residence to the family of Jacob; for we must admit that when the people increased in number, they extended beyond the limits of the land which had been allotted to them at the beginning. They spread in the south towards Heliopolis, in the north towards Tanis, and in the east in the direction of the Red Sea. I shall here briefly sum up the information which we derive from the hieroglyphical inscriptions and the ancient authors, apart from Scripture, in reference to the land of Goshen.†

The word Goshen, גֹּשֶׁן, has been translated by the Septuagint Γάσιν Ἄραβίας, Gesen of Arabia. The name Arabia must be interpreted here as meaning the nome or province of Arabia mentioned by the geographer Ptolemy, and by Pliny, and the capital of which was called by the Greeks Phacusa. Let us go back not to the time when the Septuagint made their translation, viz., under Ptolemy Philadelphos, when great

changes had taken place in the division of the land; but as far as the XVIIIth or the XIXth dynasty, when the Israelites still occupied the land which they had received as allotment from the Hyksos king. At that time Egypt of the North, the Delta, was divided into 15 nomes or provinces, instead of 23, which existed under the Ptolemies and the Romans. One of the largest in extent had for its capital Heliopolis,* called in Scripture Aven and On. It comprised the greatest part of the land which is crossed by travellers going from Cairo to Suez, and where are at present the cities and villages of Kalioub, Shibeen el-Kanater, Belbeis, Zagazig, and Tell el-Kebir. The great city of Bubastis, one of the chief residences of the Hyksos kings, was also included in this province, which was limited on the east by the nome of Pithom, called under the Ptolemies, Heroopolitan. The nome of Arabia and that of Bubastis, which later on were separated from the nome of Heliopolis, did not yet exist as distinct administrative divisions. About six miles east of Bubastis was the region called Kesem or Kes, which seems to have been also styled the water of Ra. A Dutch scholar, Van der Hardt, had already suggested in the last century that the root Kes of the name Kesem was to be found in the second syllable of the name Phacusa where it is preceded by the Coptic article pa or pha. Phacusa we know from Ptolemy to have been the capital of the nome of Arabia. As late as the 4th century of the Christian era, a woman coming from France and going to the Holy Land and to Egypt, Silvia Aquitana, mentions repeatedly in the narrative of her pilgrimage, that the land of Goshen was in her time the nome of Arabia, civitas Arabia.†

In the hieroglyphical inscriptions there seems to be an allusion to the presence of the Israelites in that region; for a text written at the time of Menephthah, the King of the Exodus, speaking of the neighbourhood of Pi-Bailos, the present Belbeis, says "that the country around was not cultivated, but left as pasture for cattle, because of the strangers. It was abandoned since the time of the ancestors." This proves that the land of Kes or Kesem was not inhabited;

* The fact that Goshen belonged to the nome of Heliopolis, explains the passage of Josephus, who says that Pharaoh allowed Jacob to live at Heliopolis, where his shepherds had their pastures: συνεχόμεν τούτω ζην... εν Ἡλιον πόλις εν ἐκείνη γάρ καὶ οἱ ποιμένες αὐτοῦ τὰς νομάς εἰχών. Jos., "Ant. Jud.,” ii., 188.
it was a region of pastures, and could be given to strangers for grazing their cattle, without driving out the natives or depriving them of their land. A country of that kind was much more convenient for shepherds like the Hebrews, than other parts of Egypt, well cultivated, and where the population was very dense. In that sense Goshen was for them the "best of the land."*

Moreover, as we know from the excavations at Bubastis, this city was one of the chief residences of the Hyksos kings, who raised there more important constructions even than those of Tanis, which was generally considered as having been their capital. It is quite possible that Joseph resided frequently at Bubastis, which was at the entrance of the land of Goshen. Therefore he had his family close by, and he could easily communicate with them. Thus Goshen, properly speaking, was the region situate east of Zagazig, towards Tell el-Kebir, and extending in the south beyond Belbeis in the direction of Heliopolis. It is a country which is familiar to the travellers who, as is the fashion now, take the road of Port Said for coming into Egypt or for leaving it. They pass through the land of Goshen in its whole length, and not only the original Goshen of the family of Jacob, but all the region to which this name was given, and which extended further in proportion as the people increased in number. It is probable that all the land occupied by the Israelites was called Goshen, and thus it became synonymous with another name which is purely Egyptian, and which dates only from the XIXth dynasty, I mean the name land of Rameses, which is found as late as the Septuagint, and even afterwards.

It is probable that this name dates from Rameses II., a vain and boastful king, who, as far as we can ascertain, was the persecutor of the Israelites, and whose chief desire seems to have been to cover the land with as many constructions as possible bearing his name, either by raising new ones or by usurping on a large scale the works of his predecessors. There were several cities of Rameses in Egypt; one of them was certainly in Goshen. In the same document which I quoted before, the narrative of the pilgrimage made by a woman in the 4th century, the author says that "going towards the city of Arabia she passed through the city of Rameses, the ruins of which were considerable; but the only monument to be seen was a stone on which were sculptured

* Genesis xlvii., 11.
two statues, said to be Moses and Aaron.” If this tradition is to be trusted as to the site of the city, Rameses must have been in the vicinity of Saft el-Hennah (Goshen), east of Zagazig, not far from Tell el-Kebir.

According to historical synchronisms, Rameses II. must have been the persecutor of the Hebrews, whereas the Exodus took place under the reign of his son. Since the history of the reign of Rameses has become better known, his prestige and glory have declined considerably. It has been recognized that he was bent chiefly on dazzling his subjects and the future generations by his outward show and his magnificence, which concealed but imperfectly the rapid progress of decay in his weakened and exhausted kingdom. He saw near his residence of Bubastis a foreign race, which had never amalgamated with his subjects, and which at any time might become a danger to his kingdom. He knew by experience that the Asiatics in the East were troublesome neighbours; he could remember the difficulty he had found in beating the Khetas, to whom nevertheless he had been obliged to offer an honourable peace. The strangers, the Hebrews, were settled in a district which was the very gate of Egypt, and the key of the kingdom. Nothing is more natural than that Rameses should wish to make profit for his realm out of the presence of those strangers, instead of their being a constant threat to its safety. We should even say that it was good policy on his part. Why not turn them into useful workmen and labourers? Scripture says that Pharaoh employed the Israelites in building the store cities of Pithom and Raamses;* in other words, he compelled them to be masons. He changed their manner of life, and instead of grazing their cattle, they had to make bricks and to raise walls. Josephus gives a more complete account of what they had to do: “they had to divide the river into many canals, to fortify cities, and to build dykes so that the river might not overflow and make lakes.” Pharaoh treated the Israelites as if they had been prisoners. In a famous picture of the time of Thothmes III. which is found in a tomb at Thebes, we see prisoners of a Semitic type occupied in making bricks; some of them dig out the clay, others pour water over it, others knead the clay, others put it in moulds. The work is done under the eye of the overseer, who is sitting with a stick in his hand, and waiting patiently until he shall have to make use of his sign of office. These men are called war prisoners, therefore they are not Hebrews;

* Exodus i., 11.
but this picture gives a good idea of the manner of life which the oppressor enforced upon them. No doubt the yoke of Pharaoh was heavy; besides, a sudden and compulsory change of habits does not take place easily. It is not without pain and suffering that shepherds accustomed for generations to the free and easy-going life of driving their flocks in pastures, are tied down to the work of bricklayers and masons, under the eye of harsh and tyrannical overseers.

"The Israelites built for Pharaoh store cities, Pithom and Raamses." I mentioned before that the exact site of Raamses had not yet been discovered. It must have been in the neighbourhood of Phacusa, not far from the present Tell el-Kebir. As for Pithom, my first excavations determined its exact site, and even laid bare some ruins of the city and its temple.* On the south side of the Freshwater Canal which runs from Cairo to Suez, through the Wadi Tumilat, about twelve miles from Ismailia, are the ruins of European houses now abandoned, but where a few years ago was a settlement of engineers and workmen who dug the canal. The French have called it *Raamsès.* The Arab name is Tell el-Maskhutah, which means "the mound of the statue," because of a monolith in red granite which stands there, and represents Rameses II. sitting between two gods. The existence of this statue and the fact that other monuments bearing the name of the same king were discovered in the garden of the chief engineer who resided there, induced Lepsius to consider Tell el-Maskhutah as being the site of Raamses. I settled there to begin excavations, in the hope of finding proofs that it was the city of Raamses. But the result of the work, the inscriptions discovered, showed that it was not Raamses but Pithom, and that the region around it had the name of *Thuket,* which the Israelites interpreted as *Sukkoth* (tents).

Pithom is the Egyptian *Pi* or *Pa Tum,* and means "the house," or "the sanctuary of Tum," the setting sun. Pithom was the religious name of the city, as Pi Beseth was the religious name of Bubastis, Pa Amon, or No Amon, that of Thebes, Pa Neith that of Saïs. The civil name of the city was *Thuku,* or *Thuket,* which was also that of the region around it, a region which the hieroglyphical inscriptions show to have been a border land. Brugsch has pointed out that the name of Thuket was the origin of the Hebrew *Succoth*; and I believe this interpretation to be perfectly in accordance with the facts observed in the excavations.

* See "The Store City of Pithom and the Route of the Exodus," 3rd edit.
with what we see not only in Egypt, but in all countries where two languages are spoken. In passing from one language to another, a proper name is generally not translated, it is only altered sufficiently to have a sense familiar to the people who have to use it. This new sense may be totally different from the original one. Examples of this fact are numerous in Egypt; it occurs also frequently in England where Norman words pronounced by Saxons took a sense absolutely different from their original meaning;* and in my own country, in the cantons where German and French are spoken together. The Semitic form of Thuket was Succoth, a word familiar to the Hebrews, as it means tents.

Thuket, Succoth, was a district before being a city; its name is often mentioned in papyri of the XIXth dynasty. Its governor was an aden, evidently the same word as the Hebrew adon. There is a statue of one of those officials in the British Museum which was found at Pithom. From the papyri we get very important information concerning the district of Succoth. Its name is generally written with the determinative of foreign lands, although it was part of Egypt, thus showing that it was a border land. It contained what is called in Egyptian segair, the same word as in Hebrew, יִּבְלָ. It means a wall or an enclosure of some kind, which was either a means of defence, a wall destined to prevent passing from the desert towards Egypt, or, perhaps, an enclosure for the cattle of the king, which were grazing in the neighbourhood.

Further information is given by a passage which I must quote in full,† following Brugsch’s translation. It is a letter written by an official: “We have allowed the tribes of the Shasu, of the land of Atuma, to pass the stronghold of king Menephthah of the land of Succoth, towards the lakes of Pithom of king Menephthah of the land of Succoth, in order to feed themselves, and to feed their cattle in the great estate of Pharaoh . . . .” We learn from this passage that in the district of Succoth there were lakes or ponds of fresh water, near which there was good pasture land; and also a farm or estate belonging to the king, where the Bedouins of the desert asked to be allowed to feed their cattle.

* I shall quote only one instance, the French buffetier became in English Beefeater.
† “The Store City of Pithom,” p. 28.
These ponds or lakes are called by a Semitic word, *barokabuta*, the Hebrew *bakkabba*, Arabic *bakkabta*. The access to these lakes from the desert was possible only through a stronghold called by a Semitic name *khetem*. A *khetem* is a kind of fortification which need not be considerable. It was specially destined to block a passage or a road; it might be translated more correctly a blockhouse. There were several *khetem* in Egypt. One of the most frequently mentioned is the Khetem of Zar, which was situate at the place now called Kantarah, on the Suez canal. There is a representation of it on a wall of the great temple of Karnak. It shows that the stronghold consisted of two gateways, with walls and towers placed on each side of a bridge, or possibly of a ford which crossed the Pelusiac branch of the Nile. It is natural to suppose that the Khetem of Succoth was of the same nature as that of Zar, and that it closed the place where, as we shall see further, the Red Sea could be crossed.

A very important fact concerning Succoth, for the knowledge of which we are indebted to the excavations made at Pithom, is the vicinity of the Red Sea, which extended much further north than it does now. Besides Pharaonic and Ptolemaic texts, there were found two stones with Latin inscriptions, giving us the Latin name of the city, *Ero*, or *Ero castra*, in Greek *Heroopolis*. This city is often quoted by Greek and Latin authors, who are unanimous in stating that the city was built at the head of the Arabian Gulf, also called Heroopolitain. Strabo and Pliny say it in the most distinct way. Agathemeros says that the Arabian Gulf began at Heroopolis. Artemidoros, quoted by Strabo, states that the ships which went to the land of the Troglodytes sailed from Heroopolis. Ptolemy fixes the latitude of the head of the Heroopolitan gulf at one-sixth of a degree south of the city. If it was so as late as Ptolemy; if in his time the sea had not yet receded to its present limits, certainly it had not at the time of the Exodus. The extent of the Red Sea, at least as far as the northern end of the Bitter Lakes, is proved also by geological arguments. It is the opinion of Professor Edward Hull,* and Sir William Dawson,† But I believe that at the time of the Exodus the Red Sea extended still further,

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comprising also the present Lake Timsah. This view, the possibility of which is admitted by Sir William Dawson, has been expounded admirably by the French engineer Linant, who travelled in the country repeatedly between 1820 and 1830. According to his researches, the sea included Lake Timsah, covered the valleys now called Aboo Balah and Saba Biar, and reached as far as the village of Magfar.

Whether the sea extended only as far as the northern end of the Bitter Lakes, or whether, according to Linant, it went still further, the well established fact of the vicinity of the sea to the district of Succoth, and to its capital Pithom Heroöpolis, of which we know the site, is a very important element in determining the route of the Exodus. The identity of Pithom and Ero, which came out of the excavations in such a striking way, could already be concluded from the comparison of the translations of Gen. xlvii., 29, which reads thus: "And Joseph made ready his chariot, and went up to meet Israel his father, to Goshen." Here the Septuagint, instead of "Goshen," reads "near Heroöpolis," and the Coptic translator, who generally follows the Septuagint, has a variant, and reads "near the city of Pithom." Heroöpolis being a Greek name, it is natural that the Egyptian writer should replace it by the old native name. Many commentators have made use of this passage to disparage the value of the two versions, which now turn out to be quite correct.

A great Ptolemaic tablet, which was discovered in the excavations at Pithom, mentions another locality of the same nome, Pi Kerehet, the house of the serpent. The inscription shows that it was a temple of Osiris, or what the Greeks called a Serapeum. The god was worshipped there under the form of a serpent. Considering as before in the case of Succoth, not the sense of the word, but its sound, it is certainly very like the Pi Hahiroth of Scripture, which is one of the places mentioned on the occasion of the Passage. Pi Hahiroth would thus be a locality in the district of Succoth. As it was a Serapeum, it is important to notice that the Itinerary of Antoninus mentions Serapiu as being eighteen miles from Ero. Standing on the pier of Ismailia, and looking over the Lake Timsah, the horizon is limited on the south by a flat ridge, a kind of table mountain, now called Gebel Mariam. Just at the foot of the mountain, on the

south, and on the very bank of the Suez Canal, is an important Roman settlement, partly covered by the lagoons, but the ruins of which above the water cover an area of 500 yards square. This I believe to be Serapiu, Pi Kerehet. Its distance from Ero agrees nearly with the Itinerary, fourteen Roman miles instead of eighteen.

Let us now revert to the papyri, in order to get information about two other places mentioned as landmarks for the camp of the Israelites, Baal-Zephon and Migdol. As for the first, I quite agree with several scholars* that it must not be considered as a city or even a village; it was a place of worship of a Semitic divinity in the form of a Baal. It was, as the Targum explains it, the sanctuary of an idol, the shape of which we do not know, but which may have been a mere stone. I believe it was something like the tombs of sheikhs, generally placed on hills, hundreds of which are met with in Egypt, and where people go for worship or to make pilgrimages, especially women. We might compare it also to the solitary shrines or chapels which are often seen in Roman Catholic countries. The word ἐκβαβτίαν, "over against," used by the Septuagint, seems to indicate that Baal Zephon was on the other side of the sea. It was the point towards which the camp of the Israelites was to make front, the direction in which they were to march. It is very like the name of Baal-Zapuna, which is read in one of the papyri of the British Museum; and if we adopt Philo's view, that Zaphon is the Northwind,† Baal Zephon was a divinity connected with the wind, and with the navigation on the Red Sea. We have no precise indication where it must be looked for; but as both Pi Hahiroth and Migdol were in the district of Succoth, I should place Baal Zephon on one of the heights between Lake Timsah and the Bitter Lakes, like Sheikh Ennedek.

We have more information about Migdol. It also is derived from a papyrus in the British Museum; a letter from a scribe who relates a journey very similar to that of the Israelites, in the following words:‡ "I started from the great hall of the royal palace on the ninth day of the month of Epiphi, at the time of night, going after two slaves. When I arrived at the enclosure (segair) of Succoth, on the tenth of

† Ebers, "Durch Gosen zum Sinai," p. 525.
‡ Brugsch, "Dict. Géog.," p. 51.
Epiphi, it was said to me, they spoke of the south, saying, let us cross over (to the desert) on ....... Epiphi. When I arrived at the stronghold (khetem) it was said to me, the two grooms going towards the mountain have crossed the wall north of the tower (Migdol) of Seti Merenphthah."

We do not know exactly the place where the scribe started from. The great hall of the royal palace is rather a vague expression; however, if we compare this letter with the others which are contained in the Anastasi papyri, we see that the city of Rameses is often mentioned. Several of the officers who write belong to the palace in the city of Rameses, so that we may fairly suppose that the same city was the starting point of our scribe. He starts in the evening, and after having probably travelled all the night, he reaches the next day the enclosure, the wall which protected Succoth on the east. His errand consists in getting information about two grooms, who have fled to the desert. At Succoth he is told that the fugitives have been heard to say that they were going to the south. Whether the report is true or not, it is natural that he should try to catch them in following the same direction. No doubt he goes south; and when he reaches the stronghold or block house, he hears that the two grooms have passed over the wall which is north of the tower, the Migdol of Seti Merenphthah. Evidently the tower and the wall must have been in the immediate vicinity, otherwise the people of the stronghold would not have been able to give him this piece of information. Their testimony is like that of eye-witnesses, therefore the fugitives could not have travelled a long distance before crossing the wall.

This blockhouse or stronghold we know already from the other text quoted before; it was the stronghold of King Menephthah which belonged to Succoth, and which closed the way to the lakes of Pithom and to the pastures of the royal farm. But the second text adds to our information two very important points—the stronghold was south of Pithom, which was first reached in coming from Egypt, and besides it contained a tower or migdol. South of Succoth there was a stronghold which, judging from analogy with the other of which we have a picture, closed a passage over the water. This stronghold had a tower, called in Egyptian by the same word as in Hebrew, Migdal or Maktal, Maktar. From the aspect of the country, I should place Migdol on the height called by the French the Serapeum, and
where, until a few years ago, there was a bilingual tablet, Egyptian and cuneiform, dedicated by King Darius, which was most wantonly destroyed at the time of the digging of the canal. This Migdol was a watchtower, and it was also a protection against the raids of the nomads who, thanks to a phenomenon which took place occasionally, found the sea open, or could easily wade through, in order to pillage the royal domains on the Egyptian side. As it was, it proved to be a defence sufficiently effective to compel the nomads to ask permission from the officials stationed there, when they wished to pass for getting food for their cattle.

Knowing now the exact site of Pithom and of the region of Succoth, and the vicinity of the sea, which possibly extended as far as Magfar; having also determined conjecturally the sites of Pi Hahiroth, Baal Zephon, and Migdol, let us revert to the narrative of Scripture. The Israelites are dwelling in the Wadi Tumilat. From the original Goshen, the territory allotted to them near Bubastis, they have spread in the land of Rameses, on the east, as far as Pithom, which they have built, and on the south towards Heliopolis. The recent excavations made at Bubastis have shown that not only under the Hyksos kings, but also at the time of Rameses II., the city had a great importance: it probably was one of the chief resorts of the kings in the Delta, and the starting point of the expeditions to Syria and Palestine. I found there the statue of one of the sons of the king who was the fifth in the series, and who after the death of his elder brother became first cavalry officer of his father, and chief of the horse, meaning the chariots, which were an important part of the Egyptian armies, while there seems to have been only very little real cavalry. It was an officer of this rank who had the command of the chariots which perished in the Red Sea. Menephthah, the King of the Exodus, seems also to have resided at Bubastis; and it is quite possible that during the events which preceded the departure of the Israelites, the king was at Bubastis, very near the Israelites, and not at Tanis, as was generally supposed. This circumstance would considerably shorten the distances, and make the narrative more intelligible.

"And the children of Israel journeyed from Rameses to Succoth."* We have seen before that the site of the city of Rameses has not yet been determined; it must have been somewhere east of Saft el-Hennuh, near Tell el-Kebir.

* Exodus xii., 37.
Rameses must not be taken here as meaning the store city of this name, it is the district around it, just as in the case of Succoth, their first station. The fortified city of Pithom did not open its gates to them; they encamped in the neighbourhood. At the time of the pilgrimage of Silvia Aquitana which I quoted before, Succoth is spoken of as being a slope of moderate size.* The Israelites seem to have made the journey from Rameses to Succoth in one day, like the officer who followed the fugitives. Along their way they must have followed the canal dug by Rameses which watered the cities of the Wadi Tumilat, and which at the place where it emptied itself into the Red Sea formed those lakes to which the Bedouins asked for access.

In going to Canaan they had the choice between two different roads. There was one in the north which passing through Tanis and Daphnæ, reached the Mediterranean, and skirted its coast. It was decidedly shorter, but it passed at first through cultivated and well irrigated land, and also through important fortresses like Tanis, with large garrisons. It was the way of the great conquerors of the XVIIIth dynasty, and it is styled by Scripture "the way of the land of the Philistines." From the first, before any other indication is given as to the direction they were to follow, it is said that "God led them not by the way of the land of the Philistines, although that was near."† The other was the southern road which their ancestor Jacob had taken when he came to Egypt, since, according to the Septuagint, it was at Heroöpolis Pithom, that father and son had met after many years of separation. A few years ago the Bedouins coming from Syria frequently followed the same route, which was less convenient for an army, but well adapted for a people of nomads.

Leaving Succoth, its pastures, and its lakes, the Israelites had only to push straight forward; they skirted the northern end of the Red Sea; they had no river or sea to cross, and they could easily reach the desert. They began carrying out this plan, for "they took their journey from Succoth, and encamped in Etham, in the edge of the wilderness."‡ Etham is a name which has not yet been satisfactorily explained. From it the desert was named in which the Israelites journeyed during three days. At Etham the

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* "Soccoth autem est clivus modicus in media valle, justa quem colliculum fixerunt castra filii Israel."
† Exodus xiii., 17.
‡ Exodus xiii., 20.
Israelites received a command which at first must have seemed to them most extraordinary.* "And the Lord spake unto Moses, saying, Speak unto the children of Israel, that they turn back and encamp before Pi-hahiroth, between Migdol and the sea, before Baal-zephon: over against it shall ye encamp by the sea. And Pharaoh will say of the children of Israel, They are entangled in the land, the wilderness hath shut them in." Certainly this command was of a nature to shake the confidence of the Israelites in their leader. They had reached the desert, they had nothing in front of them, and instead of hastening towards the wilderness so as to be as soon as possible out of the reach of their oppressors, they were told to change entirely their route, to retrace their steps so as to remain on Egyptian soil, and even to put the sea between themselves and the desert. Surely it would encourage Pharaoh in his pursuit. For the king, the reason of this sudden change and of this extraordinary move was obvious. The Israelites were afraid of crossing the desert. They were entangled and wandering in the land of Egypt, because the desert was for them an insuperable barrier. This is in my opinion the right explanation of the words, "the wilderness hath shut them in;" viz., the desert which is in front of them prevents them from going out. Curiously the word translated here shut in is the Hebrew סֵגוֹר, a wall closing the passage, as we saw there was one in Succoth.

It is to be noticed that whereas in other parts of Scripture, and especially in the description of the route in the wilderness, the geographical data are sometimes vague and always very concise, here they are given with a remarkable precision. It is not said to the Israelites merely that they are to stop near the sea in the most favourable camping ground, or something of the like. They are to reach a definite spot, the landmarks of which are given; on the north, Pi-hahiroth, the sanctuary of Osiris; on the south, Migdol, the watch tower on the hill, now called the Serapeum; in front, the sea; and on the opposite side, the shrine or the stone of Baal Zephon. The reason of this description seems to be the following: at that particular spot a phenomenon occurred which was to be the means of escape for the Israelites—the sea

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* Exodus xiv., 1.
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receded under the influence of the wind. "The Lord caused the sea to go back by a strong east wind all the night, and made the sea dry land, and the waters were divided."* It has often been noticed by travellers in Egypt, that under the influence of a strong wind the sea recedes sometimes for a great distance, and comes back again to its former bed when the wind ceases or changes its direction. This phenomenon is not rare in Lake Menzaleh, which communicates with the sea; in Lake Bourlos, or even along the track of sand which lines the Mediterranean on the east of the Suez Canal towards the Syrian coast. There is nothing extraordinary in this taking place in the part of the sea between Lake Timsah and the Bitter Lakes; there the slow rising of the ground, which in later times cut off Lake Timsah from the Bitter Lakes, was already being felt; the sea must have been shallow and probably not very wide. I should even go further, and say that it had been known before that this phenomenon occurred at that particular spot, and that this is the reason why the spot is pointed out so exactly to Moses; that is also, in my opinion, the reason why the Pharaohs built there a khetem, or stronghold. I imagine that the result of the action of a strong wind was, in most cases, to cause the water to recede, and to create there a temporary and occasional ford, which people could easily wade through, as was seen north of Suez, at the end of the present Red Sea, before the canal was dug. As the wind in lowering the depth of the water could sometimes create a passage, it was necessary to close it; and, for this purpose the Pharaohs built there a watch tower, a Migdal, in order that the nomads coming from the desert, and who might be attracted by the rich pastures of Pithom, could not pass without being seen.

To the action of the wind we must add that of the tide, which is now felt in the Bitter Lakes. As for the wind alone, its effects on the sea are known in Egypt to the present day. That it should affect shallow water in a flat country is easily intelligible. Much more striking instances of the power of the wind compelling even a strong current to stop for a certain time have occurred elsewhere, and especially in my native country. On the title page of a book printed at Geneva in 1495, and which is called "Le Fardelet hystorial" (litt., the historical bundle), one reads the following

* Exodus xiv., 21.
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words:* "Printed in Geneva, in the year 1495, in which year there was such a very strong wind, on the ninth day of January, that it drove back the Rhone into the lake as much as one-fourth of a league above Geneva, and it looked like a wall of water, and it lasted nearly an hour before the water could flow." This extraordinary event could take place when the river was much wider than it is now. The southern part of the city not being built, the river expanded into ponds and marshes; its depth and the strength of the current were much less than now, since its bed has been restricted everywhere by houses and embankments. A clergyman, Des Gallars, in Latin Gallasius, who wrote a latin commentary on Exodus, in the middle of the following century, alludes to this fact as proof of the opening of the Red Sea, and he adds that in his time there were still some ocular witnesses of this extraordinary event.†

The same thing happened again in 1645, and is related by several Genevese historians.‡ On the 19th of January, during a very strong wind, between seven and ten in the morning, the inhabitants could go down on dry ground between the bridges, and pass from one bank to the other. Instances of the same kind might be quoted from several other countries.

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* The passage reads thus in its picturesque old French: "Imprimé à Genève, l'an 1495, au quel an fit si très grand vent, le IXe jour de janvier, qu'il fit remonter le Rhône dedans le lac bien ung quart de lieue au dessus de Genève, et semblait être une montagne d'eau, et dura bien l'espace d'une heure que l'eau ne pouvait descendre."

† Nunc ad dividendas aquas et patefaciendam per invia suo populo viam ventum immisit: idque ab Oriente, quoniam ab ea parte vehementior in illis regionibus esse solet. Quum igitur ventorum vi operatur Deus, in authorem ipsum potius quam in organa quibus utitur aut effectus ipsos, oculos ac mentes defigamus. N ovum autem videri non debet, absistere maria ac findi impetu venti, quum ordinario nature cursu ipsa impelli ac veluti in cumulos et montes efferri, atque interdum longe a litoribus summoveri videamus. Intellexi a viris fide dignis, se paulo ante haec tempora hic Genevæ in eo loco ubi Rhodanus lacu exiens alveum suum ingreditur, vidisse aquas Austri violentia ita repressas ut iis velut in acervum cumulatis, alveus siccus férè per horae spatium manserit. Atque eius rei superstites adhuc sunt oculati testes nonnulli. Nam eò férè universa plebs concurrít. (In Exodum comrventarii Nicolao Gallasio authore, p. 88.)

‡ I shall quote only one authority, Calandrini, in a note on a Latin poem: Anno 1645, die Dominica Januarii decimâ nonâ, horis inter octavam decimamque Genevæ tam terribilis extitit impetus, ut celerem Rhodani fluxum retroageret usque in Lemanum lacum, undeque muri instar concer­vavate cursum suum sisterent, adeo ut vado sub binis pontibus locisque vicinis facto, novitate rei numerosa commota plebs deambulaverit quasi in sicco, et pisciculos, etiamque majusculos manu colo­gerit quam plurimos.
In the case of the Israelites, Scripture relates in the plainest words what occurred: in a place where, as I said, the water was shallow, a strong east wind opened the sea and made a way through which the people passed. The mountains of water which are mentioned seem to indicate that there was a current of some kind which must have been produced by the tide. It has been objected that an east wind would have driven the water towards the Israelites, and not opened the sea, as the wind never acts as a wedge.* It may be answered that here we must not take the word east as meaning east sharp; it is much more likely south-east, the well known Khamseen, which blows frequently at that time of the year, and often changes direction in the course of the day from east to south-west.† The Septuagint translate ἄνεος νότος, and the Vulgate ventus urens. In my opinion, which I express only as a conjecture, the Khamseen acted on the tide as the wind did on the Rhone, it stopped the current, I should say the ebb, and prevented the water from flowing. In the morning, the wind ceasing suddenly, the water took its level violently, and swept off everything which was on its way.

In the description given above of what to my mind seems to have been the route chosen by the Israelites, there is a point which I consider as very important: it shortens considerably the distances over which they had to travel. We have seen that it was quite possible that Pharaoh was at Bubastis when he received the visits of Moses and Aaron. The city of Rameses was in the Wady Tumilat, not far from Tell el-Kebir; Succoth was the district around Tell el-Maskhutah; and the place where they crossed the Red Sea was about fifteen or seventeen miles south of Succoth. The whole covers a space which in width was not more than forty miles. I consider the distance to be one of the chief objections to the place proposed by Prof. Ebers for the crossing of the sea, immediately north of Suez. Besides, this opinion is open to the same objection as the place advocated by Sir William Dawson, the southern part of the Bitter Lakes, viz., the Israelites would have had to pass over the ridge of Gebel Geneffe, of no inconsiderable height, and no easy access. In travelling by railway from Ismailia to Suez, before reaching the Bitter Lakes, the way seems entirely closed by the Gebel Geneffe and its highest summit the Peak Chebrewet. The

† Linant, l.l., p. 207.
Israelites in their flight towards the south would have had either to climb over the mountains, or to follow a narrow track, if there was any, between the sea and the mountains, where they would have been easily destroyed. Josephus alludes twice to the fact that they had in front steep mountains projecting into the sea, and that they were shut up between the sea and mountains. Seen from a distance of a few miles, the mountains would produce on the Israelites the same effect as they do now on travellers; they would appear as entirely barring the way, even if there was an open path along the sea, which is doubtful, and it explains the despair of the Israelites described by Scripture and Josephus.

The site which I assign for the passage of the Red Sea agrees with the views of Linant, Lieblein, and Lesseps. These three authorities admit that the passage took place north of the Bitter Lakes, in the space which divides them from Lake Timsah, not far from the present Serapeum. I believe this is in accordance not only with the monuments, but also with the aspect of the country; and I advise the numerous travellers who go through that region, so full of glorious remembrances, to look at it in that light.

The Right Rev. Bishop Staley, D.D.—I have the pleasure given me to-night of asking you to express your obligation to the powerful writer of the Address, whose absence we all regret, and also to all the authors of the Papers read this session. Dr. Naville's is a remarkable Paper, in that it seems to lessen so completely the difficulties which the author himself feels cannot be entirely eluded in the story which we have, without any elucidation, given in its naked form, in the book of Exodus. He endeavours to show from evidence which I think is irrefutable, that the relative position of Pharaoh and the Israelites was somewhat different from that asserted by some previous writers who have endeavoured to illustrate the subject, and thus deprives it of certain difficulties which have been put forward. It seems clear that the wind and sea were instruments in God's providence for accomplishing the

* Linant, I., p. 205.
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deliverance; operating together on the side of the Israelites. This does not in the slightest particular lessen our faith in the supernatural, but it raises us to a higher platform, if I may say so, in our contemplation of natural laws. God is pleased for His purposes to use natural laws as He wills, and as seemeth to Him good, in the accomplishment of His ends. It has been a great treat to me to be present to-night, and to hear this most interesting Paper. I have followed for years past the work of the Institute, though it has not been my privilege, owing to my residence being so far away from the metropolis, often to be present at its meetings. It was founded through the instrumentality of some who have been gathered to their rest. One of these was a Cambridge friend of mine, the Rev. Walter Mitchell—a man of thorough scientific bent and culture himself. I may say an original investigator in one province, viz., that of crystallography; and I remember the deep interest which he felt in this Society. I trust it will continue to prosper. (Cheers.)

Sir John Coode, K.C.M.G. (the late).—I, like the Bishop who has preceded me, feel honoured in being called upon to second the resolution "That our best thanks be presented to Doctor Naville for the Annual Address now delivered, to Dr. Wright for reading it, and to those who have given Papers during the Session."

Perhaps without simply contenting myself with barely seconding the resolution, I may be permitted to say a word or two. In 1884 I happened to be nominated by Her Majesty's Government as one of the representatives of Great Britain to inquire into the question of the enlargement of the Suez Canal, that is to say, whether there should be an enlargement of the Canal or whether there should be an entirely separate canal from the Isthmus. At that time Professor Hull, who is referred to in this Paper, had written an essay on this very subject, and had given expression to the opinion that the Red Sea, at the time of the crossing by the Israelites, did extend very much further to the north than in our day. My mind was very full of that subject, because I had not very long before been to Suez and been told, like all other travellers at that time, that it was just about south of Suez where the Israelites crossed the Red Sea. That, I must say, was rather difficult to believe. I was prepared to believe in miracles, but when Professor Hull's Paper was brought out indicating that the scripture narrative would be made much clearer
to us if it were found that the passage of the Israelites through the
Red Sea was nearer to Ismailia and to Rameses than was
previously supposed, a great point was gained. I was very anxious
before we reported on the subject of the enlargement of the Canal
that we should clearly ascertain what was the nature of the strata
that would have to be dealt with and passed through. In the dis-
trict referred to near the Bitter Lakes, I went on one occasion up
the slope of the Canal and saw something rather striking at a level
of about 12 or 15 feet above the level of the Canal, which, for all
practical purposes, was within an inch or so of the level of the sea.
I saw something attracting attention and I took a pick out of a
workman's hand and struck it into the earth and then I dug up
this very sample which I hold in my hand. At first sight I thought
it was gypsum, and so I said, but standing by my side was an
Italian gentleman, who had been one of the engineers employed on
that section of the Canal. I said, "This is gypsum." "Oh no," he
said, "it is salt." "What makes you say salt?" said I. "Why,"
he said, "the whole district here is covered with salt." Now here
I will hand to our President, Sir George Stokes, that very piece
which I dug up, and I think by its taste and form of crystals,
which are cubical, he will be much inclined to say that it is salt?
(The President assented.) Now, it being admitted that it is salt,
here we have the fact that at some time or other this land must
have been submerged—or the sea has receded. I think this piece
of salt is a proof of the truth of Professor Hull's theory, and it
is also a proof of the accuracy of the writer of this Paper when he
refers to the slow rising of the ground which at a later time cut off
Lake Timsah from the Bitter Lakes. If this specimen does not
prove that at this time this land must have been under the influence
of the sea at a level of 12 feet, I do not know what proof is.
(Cheers.) I have great pleasure in seconding the resolution.

The resolution was then carried unanimously.

Rev. W. Wright, D.D.—Whilst thanking you for the kind men-
tion of my name in the vote of thanks, I do not feel that I deserve
any thanks whatever. It has been to me a great pleasure to have
read this Paper to-night for my valued friend Dr. Naville. I have
studied the country he describes and while not expressing any
opinion as to several minor suggestions towards the end of the
Paper, I agree with its substance throughout. In regard to this
crossing of the Red Sea I think we sometimes hamper ourselves
with our definition of a miracle. When we say it is a result brought about by something contrary to the laws of nature, we give the infidel his argument. (Hear, hear.) For me to say a miracle is something contrary to the laws of nature implies that I know what the laws of nature are. Now I do not think I can say so. God may use and does use His laws as He wills, and in doing so He may for anything I know be acting according to the laws of nature. When we speak of a miracle as something "so far removed from common experience as to show the hand of God especially at work among His own forces," we are on safer ground.

Mr. Alexander McArthur, M.P.—I have to move a resolution which I am sure will meet with hearty approval. It is that the thanks of the meeting be presented to the President. Considering the great and important duties he has to perform, our indebtedness to him for his constant care of our interests calls for very special acknowledgment. (Cheers.)

Sir Theodore Ford.—I have great pleasure in seconding the resolution which has just been proposed. I entirely concur in what the last speaker has said, but at this late hour, I am desirous of saying as little as possible, and I can only trust that the shortness of the language I use will not convey the idea that the thanks of this meeting should be less hearty than they ought to be. (Cheers.)

The resolution having been passed,

The President.—I rise to return my sincere thanks for the honour you have done me in passing this resolution. I confess I have not been as active a President as I could have wished, because, as mentioned, my time is so very much occupied by many duties both in London and at Cambridge, but I need not say that among the duties which afford me great pleasure are those in connection with the Victoria Institute.

[The Members, Associates, and their guests then adjourned to the Museum, where refreshments were served.]