SCIENCE AND THE EXODUS.

I.

THE RED SEA TO REPHIDIM.

Modern Science has approached the book of Exodus along three lines of investigation. The higher criticism has sought to distribute its authorship among a number of writers, extending from the time of Moses to that of the later Kings of Judah, and to represent the work as a compilation from different sources made in times long subsequent to those of which it treats. The writer has no inclination to enter into these questions. They are foreign to the departments of science which he has specially studied, and their value appears to him rather subjective than objective. They serve rather to show the speculative tendencies of certain minds in modern times than to throw any actual light on the matter to which they relate. Their results are also to all appearance contradictory to those established by other lines of scientific inquiry.

A second line of investigation, of a more promising nature, is that of Archæological research, which seeks to deduce from Egyptian monuments some contemporary evidence for or against the Hebrew story. This has in modern times yielded valuable and positive results. We know with some certainty that the migration of Jacob into Egypt occurred either towards the close of the rule of those foreign kings known to the Egyptians as the Hyksos or Shepherd kings, or possibly at the beginning of the dominancy of the native Egyptian dynasty which succeeded them, known to historians as the eighteenth. They evidently long enjoyed much consideration in Egypt, were regarded as a valuable bulwark of that country against invaders from the east, and probably furnished portions of the armies with which Thothmes III., and other great Egyptian sovereigns of that dynasty carried on their brilliant and successful campaigns in Asia. It further appears that towards the close of the eighteenth dynasty the Hebrews either attained such dominance as to attempt to reform the religion of Egypt; or what is perhaps more likely, that some astute statesman had conceived the idea of assimilating and simplifying the religious beliefs and practices of the different races inhabiting Egypt, by one of those acts of uniformity which have so often been attempted by rulers, but with so little success. Queen Taia, said to have been a fair-complexioned woman, with foreign features, and her son, Amen-hotep IV., have been handed down to us on Egyptian monuments, as the leaders in this revolution, and the worship supposed to have been introduced was that of Aten or Adonai, symbolized by the solar disc, one of those monotheistic religions akin, at least, to the patriarchal beliefs of the Hebrews. This religious innovation was followed by a time of strife and confusion, out of which emerged the nineteenth Egyptian dynasty, one of the first kings of which, Seti, seems to have been himself of Shepherd or Hebrew Iace, and to have been introduced by marriage into the Royal family. But with him ceased the privileges of the Hebrews. His son, Rameses II., the Sesostris of the Greeks, was a tyrant, who, through a long and most successful reign, ground with the direct oppression not only the subject and foreign races, but the common people of Egypt itself. He seems to have been "the king who knew not Joseph" of the Bible narrative; and in the troubled reign of his successor, Merenphtah, who reaped the harvest of his father's misdeeds, occurred the Exodus of the Israelites, from which time the power of Egypt and its foreign conquests manifestly declined. From the Archæological investigations which have afforded these results, much may yet be hoped which may throw light on the Biblical History; and what is known tends to raise our ideas of the importance of the Hebrew people during their sojourn in Egypt.*

The third line of investigation above referred to, is that of topographical survey and exploration. Much has been done in this way by successive travellers, who have traced out the probable route of the Hebrews from Egypt to Palestine, and endeavoured to identify the sites of the greater events of the Exodus; but these investigations have for the most part been so hasty and imperfect that the greatest doubts have rested on the subject, and that even the precise site of the Mountain of the Law has been a matter of controversy. Recently, however, owing to the liberality of a number of gentlemen interested in Geographical and Biblical research, a thorough topographical survey of some of the more important parts of the Peninsula of Sinai has been made by officers of the British Ordnance survey; and probably for the first time since the exodus a party of skilled engineers has followed on the track of the Israelites, and subjected the whole question to the test of accurate measurement. The results of this survey have been most interesting and important, and have been sumptuously published in four folio volumes of letter-press, maps and photographs, which picture in a manner never before accomplished that wilderness into which the ancient Hebrews plunged themselves in their search for civil and religious liberty. It is true that this exploration has covered only a portion of the ground, namely that from the Red Sea to Sinai; but this is the most important part, though it still leaves very much to be done, especially with

reference to the later period of the wanderings in the desert.†

The party employed consisted of Captains C. W. Wilson and H. S. Palmer, The party employed consisted of Captains C. W. Wilson and H. S. Palmer, R. E., under whose joint direction the survey was conducted: four non-commissioned officers of the Engineers; Mr. E. H. Palmer, of St John's College, Cambridge, as linguist and philologist; Mr. C. W. Wyatt as naturalist, and Rev. T. W. Holland, who directed special attention to the geology of the country. The objects of the expedition are stated in the introduction to the Report to have been to "bring the material appliances of the ordnance survey to bear on the questions at issue, by subjecting the rugged heights of the peninsula to the unreasoning though logical tests of the theodolite and land-chain, of altitude and azimuth instruments, of the photographic camera, and the unerring evidence of the Pole Star and the Sun." It was not hoped to obtain any actual monuments of the march of the Israelites, but to determine the sites of special events, and according the according to the locality and the and ascertain the correspondence or difference of the localities with the histor ical narrative, and to fix the limits of the native tribes referred to. reference to all these subjects, there seems to have been entire agreement of the members of the party on every important point, and such complete coincidence

of the actual features of the country with the requirements of the Mosaic narrative, as to prove it to be a contemporary record of the events to which it relates, unless, indeed, we can imagine some one of the later narrators supposed by the German critics, to have had access to a survey of the Peninsula as accurate as that recently made. Out of the points which might be chosen for illustration many would need the reproduction of the maps, sections and photographs of the survey, and a volume, rather than an article, would be required to do them justice. I may select the following as leading topics:

The correspondence of the historical route of the Israelites with the

ography and geology of the country.
2nd. The site of the battle of Rephidim and the meeting of Moses and lethro.

3rd. The Mountain of the Law and the plain before it.

of To be continued.

NINO BIXIO.

BY EVELYN CARRINGTON.

(Continued.)

In 1846, Bixio with two companions, embarked in high spirits on an American merchant-ship sailing for Sumatra. But their exuberance was considerably damped by the discovery that the captain of the vessel was a Quaker, whose endeavour it was to institute a rule, something between that of a Trappist monastery and of a Scotch Sabbath. Silence, meditation, and solemn faces, were the order of the day; and the three Genoese sailors, scarcely aroused from a mad-cap boyhood, found themselves sorely out of their element. No sooner were they in sight of Sumatra, than they secretly decided to run away, or rather swim away, from the penitential vessel as best they might. One of the three, Parodi, observed that these waters were swarming with sharks, to which Bixio rejoined: "What matter the sharks?" and leapt in, followed by the others. It was a bright night; the shore seemed near; but distance is deceptive at sea, and the further they swam the further it appeared to recede. Poor Parodi vanished beneath the water: exhaustion or a shark had finished his career; the two others were almost at the end of their strength when they descried a little sea-gull islet within a short space of them, and here, more dead than alive, they landed. They were perceived by the natives on the shores of Sumatra, who came out to fetch them, and who treated them kindly, but looked upon them as prisoners. A refusal to obey the mandates of their captors would very probably have been followed by instant execution; and the customs, social and religious, with which they were requested to conform at the Malayan court threatened to lead them into disagreeable predicaments, when the worthy Quaker Captain arrived as a deus ex machina, and carried off his runaways, much to their own relief. Thence they sailed to New York, where Bixio took service in the first vessel bound for Europe; and in 1847 we find him once more making an appearance in Genoa in the manner described at the opening of this notice.

Those were the days of demonstrations. One followed upon the other in quick succession: in every Italian city each passing event or incident which could possibly take the impress of a political significance was invested with it. Thus Mr. Cobden's tour grew into the proportions of a quasi-royal progress; thus at Genoa, when the news came of an insurrection at Palermo, the people proposed a public thanksgiving in the Church of the Annunciation, and Goffredo Mameli— a boy-poet of infinite promise—dashed off this inscription:-

" A Dio Per la Vittoria del Popolo,"

which Nino Bixio, clambering up over the church door, defiantly fastened on the wall, that he who ran might read. Thus again at Genoa, the King's entry was made the occasion of a great political manifestation. These demonstrations were no idle excuses for crowds and rhetoric; they sounded the key-note of the symphony soon to be played by the full orchestra of bayonet and cannon.

On the 18th of March, 1848, Bixio and his friends heard of the revolution in Milan; the day after, he was on his way to the Lombard frontier. Raffaele Rubattino, whose name will occur again in these pages, paid for the diligence ticket which took the young volunteer to Cavo, for he possessed hardly a sou in the world. At Cavo a small nucleus of volunteers was concentrated, where Bixio was shortly joined by Goffredo Mameli and other of the patriotic youth of Genoa. Mameli parted from Bixio upon a summons from Mazzini to Milan. As a souvenir he gave his friend a little almanac in which to write a diary of the campaign. This almanac is still in existence, having been carefully preserved by Bixio for the sake of his friend; and although the volunteer corps in served by Bixio for the sake of his friend; and although the volunteer corps in which he had enlisted did not have the chance of doing great things, his brief records are interesting, as denoting a curious maturity of judgment in military matters, for a seafaring youth without any special training or experience. The armistice of Salasco put an end, for the time, to the ardently-wished-for and bitterly-disappointing Piedmontese "war with Austria." The volunteers were disbanded; Garibaldi alone yet held out in the midst of universal dissolution. To him Bixio went, and so began their long and fruitful connection.

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In the April of 1849, the assurance of amity tendered by General Oudinot in the name of his master, the President of the French Republic, procured a peaceful reception for the French troops which landed at Civita Vecchia. When the mask was lifted, the French general was in possession of the fortress, and resistance was impossible. Bixio was there; and burning with indignation he burst into the room where Oudinot and his staff were holding a council of war, and denounced "the infamy of one republic coming to assassinate another." Oudinot replied with some platitude about the intruder being too young to understand the grave events which took them to Rome, and so the incident ended. Again the mask of friendship was resumed, but only to conceal still further bad faith. One month later, Louis Napoleon empowered the French envoy, Lesseps, to sign a convention with the Roman Republic, whereby the war was transformed into an alliance, and at the same time gave secret instructions to Oudinot to trample on the treaty thus signed, and break the trace. Treachery characterized every step in the expedition; but Louis Napoleon

^{*} For authorities see Lenormant & Chevallier, "Manual of Ancient History."

[†] Ordnance Survey of the Peninsula of Sinai. Published by order of the Lords Commissioners of Her Majesty's Treasury, 1869.