THREE EARLY EXPLORERS IN THE DEAD SEA VALLEY.

COSTIGAN—MOLYNEUX—LYNCH.

By Dr. E. W. G. Masterman.

Three names of explorers in the Dead Sea Valley during the first half of the nineteenth century stand out conspicuous. All three attempted to navigate the Jordan from the Lake of Galilee southwards and to sail the then utterly unknown waters of the Dead Sea: two out of three of the attempts ended in tragedy. The earliest explorer was Costigan, an Irishman, the second Molyneux, an Englishman, the third Lynch, an American.

Of the first two expeditions but little is known, both the explorers having died shortly after their visit, leaving little or no information. Of Lynch's expedition we have full details in the *Narrative of the U.S. Expedition to the River Jordan and the Dead Sea*, and it will not be necessary to say much about it here.

The names of Costigan and Molyneux are familiar to students of Palestine geography, as Lynch gave them to the northern and southern capes respectively of the strange promontory, *el lisān*, which projects into the Dead Sea from the eastern shore.

These early expeditions must always have a unique interest. The better knowledge we have of the climate and geography of this region; the improved means of communication and the firmer control now obtained by the Turkish Government over the lawless bedu have entirely altered the conditions of seventy or eighty years ago. The causes of the first failures are now so clear, to even the inexperienced, that we might be tempted to consider as mere fool-hardiness the first two of these efforts, but a more sympathetic attitude and a realization of the imperfect knowledge of this region in those days will rather class these with similar heroic ventures of pioneer explorers in all climes.
Some years ago I came across some notes in the *Proceedings of the Jerusalem Literary and Scientific Society* bearing on Costigan and Molyneux. There was a paper by Miss Nicolayson narrating how her father went to the assistance of the former unfortunate explorer in his misfortunes and illness, and another more elaborate account by Mr. Finn, then H.B.M.'s Consul in Jerusalem and President of the Literary Society, telling of his personal experiences with Lieut. Molyneux. Both papers were read at the same meeting in 1850. I published in *The Biblical World* a summary of these papers in an article entitled "Explorations in the Dead Sea Valley." Subsequently my friend Prof. R. A. S. Macalister, looking over the Literary Society's *Proceedings*, thought these papers would be worth publishing more *in extenso* but, as I had already dealt with the subject, he kindly handed over to me his MS. copy of the Literary Society's *Proceedings* of which I am gratefully availing myself. Indeed my function is to little more than edit the notes which he laboriously copied out.

At the time I published my previous paper I much hoped that some reader would come forward with fresh information, particularly as regards the unfortunate Costigan, but I have so far been disappointed. It is partly in the hope that this present paper may fall into the hands of some one able and willing to furnish us with new material that I am now editing the notes.

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**COSTIGAN—1885.**

Christopher Costigan was an Irishman, born 1810 of Dublin parents. He was educated at Maynooth College, being a Roman Catholic. He is said to have long been a traveller in the East before he undertook the Dead Sea expedition. For this last he made long preparation: he read every book that treated of the Dead Sea and thoroughly prepared himself with all knowledge necessary for exploring it to advantage.\(^1\) Unfortunately for the interests of science he had always been accustomed to trust greatly

\(^1\) For this and other statements I am indebted to a book called *Incidents of Travel in the Holy Land*, by J. L. Stephens, published 1839. Mr. Stephens took considerable pains to gather all the information he could about Mr. Costigan's expedition and interviewed the Maltese servant at some length.
to memory. After his death no regular journal was found, but merely brief notes on the margins of books, so irregular and confused that nothing could be made of them.

Mr. Costigan chose for his expedition the most unfortunate season of the year—the latter part of August and the beginning of September. In the first place the heat is then at its greatest—no European would willingly venture into the ghor for more than the briefest visit at this time—and secondly it is the time of year when the Jordan waters are almost at their lowest.

Costigan conveyed his boat on camel-back from the bay of ‘Akka overland to Tiberias and, with a single Maltese sailor, attempted to navigate the Jordan southwards to the Dead Sea. After three days’ struggling down a long succession of waterfalls and rapids, in which they were more often in the water than out of it, the Maltese servant so entirely lost his patience and nerve that Costigan determined to convey the boat by land. Having obtained camels and a guard he sent the servant through Nablus to Jerusalem with the luggage, and himself proceeded along with his escort down the Jordan Valley to Jericho. On the way he noticed some suspicious-looking Arabs collected on a hill overlooking the road in front of him. He sent on some of his escort to reconnoitre, but his horse was determined not to be left behind and consequently the whole party proceeded at full speed towards the Arabs. Costigan trying in vain to draw his sword, which had become rusted from the Jordan water, finally broke it off at the hilt. Fortunately the Arabs, who must from the account have been a strong party, seeing Costigan’s people making full tilt for them, took flight in consternation and dashing down to the Jordan quickly swam across and escaped to the eastwards.

Costigan eventually arrived in Jericho with his clothes in utter rags from the thorny bushes and thickets of the Jordan, and leaving his boat at Jericho he came up to Jerusalem to meet his luggage. Eventually after a few days’ delay in preparation he got started on his adventurous voyage.

The account of what took place is confused. Both Miss Nicolaysen writing in 1850—from verbal information supplied by her father the Rev. T. Nicolaysen, then living—and Mr. Stephens (Incidents of Travel in the Holy Land) writing in 1837 or 38, profess to draw their information from the Maltese servant. The former says: "At the conclusion of the ill-fated voyage Mr. Nicolaysen found the adven-
turous traveller at Jericho, he was too weak to give much information about their tour; such particulars only as could be gathered from his servant are preserved." Mr. Stephens says that the missionaries in Jerusalem "either from indifference or because they had no confidence in him, allowed Costigan’s servant to go without asking him any questions. I took some pains to trace out this man in Beirūt. He was a little dried-up Maltese sailor. He said that he had rowed about the sea without knowing why, except that he was paid for it, for he did not seem to think that he had done anything extraordinary. He knew as little about it as any man could know who had been over the same water . . . He seemed, however, to have observed the coast and surroundings with the eye of a sailor."

On the whole I am more inclined to place reliance on the account of Mr. Stephens; he got his information soon after the events and took considerable pains to elucidate the facts. The following is his account of his interview:—

“He states that they were eight days in accomplishing the whole tour of the lake sleeping every night on shore except once, when, afraid of some suspicious Arabs whom they saw on the mountains, they slept on board beyond the reach of gunshot from the land. He told me that they had moved in a zigzag direction, crossing and recrossing the lake several times; that every day they sounded frequently with a line of 175 fathoms; that they found the bottom rocky and of very unequal depth, sometimes ranging thirty, forty, eighty, twenty fathoms, all within a few boat’s lengths; that sometimes the lead brought up sand like that of the mountains on each side; that they failed to find the bottom but once, and in that place there were large bubbles all around for thirty paces, rising probably from a spring; that at one place they found on the bank a hot sulphur spring. . . . He told me some other particulars: that the boat, when empty, floated a palm higher out of the water than on the Mediterranean; that Costigan lay on the water and picked a fowl, and tried to induce him [the sailor] to come in [into the water]; . . . that from nine till five it was dreadfully hot, and every night a north wind blew, and the waves were worse than in the Gulf of Lyons. In reference to their peculiar exposures and the circumstances that hurried poor Costigan to his unhappy fate, he said that they had suffered exceedingly from the heat, the first five days Costigan taking his turn at the oars; that on the sixth day their water was exhausted¹ and Costigan gave out; that on the seventh day they were obliged to drink the water of the sea,

¹ Miss Nicolayson states that the Maltese “threw the fresh water overboard while Mr. Costigan was asleep, thereby intending to facilitate their progress”—and further that Costigan had “never before in his life known how to ply the oar.”
and on the eighth they were near the head of the lake and he himself was exhausted, unable any longer to pull an oar. Then he made coffee from the water of the sea, and a favourable wind springing up for the first time, they hoisted their sail and in a few hours reached the head of the lake; that, feeble as he was, he set off for Jericho, and in the meantime the unhappy Costigan was found by the Arabs on the shore a dying man."

The rest of the narrative I give in the wording of Miss Nicolayson's paper:

"Overcome with heat and thirst and hunger, and tormented with the effects of the dreadfully salt and corrosive water of the Dead Sea, which made their skin blister all over—they having imprudently poured water upon their clothes, to procure a little cooling, which only served to make the fever rage within: having spent a night and the greater part of a day in this state on the northern shore, the servant at last made an effort to reach Jericho in order that he might send water and a horse to Mr. Costigan. More than seven times he fainted by the way, and after a fruitless search for water—by turning out of the way to the ruins of an old tower—he at last reached Jericho in a state of absolute exhaustion. Here he found a person belonging to the Governor of Jerusalem, who immediately sent two soldiers on horseback with water to Mr. Costigan, his own horse for himself, and a camel for the boat.

"Notwithstanding the continual return of the fever Mr. Costigan had just strength enough to ride his horse to Jericho, where he was kindly received into the hovel of one of the Arab inhabitants, and very assiduously attended to by the owner's mother. This was on Wednesday, the 2nd of September, 1835. In the evening he sent his servant to Jerusalem with the sails and oars of the boat and the other things, intending himself to start about midnight, hoping that the fever would have left him.

"He ordered his servant to go to the Governor of Jerusalem and request a camel to be sent to his master, which he was to prepare with mattresses and cushions so as to admit of his lying should he not be able to ride his horse. The servant, however, seems quite to have forgotten his master's orders, as he never sent the camel.

"On Thursday afternoon a messenger mounted on Mr. Costigan's own horse came with a note to Mr. Nicolayson requesting medicine. The following is a copy:

"'My Dear Sir,

'For God's sake send me some medicine, and emetic above all things. I cannot rise from my bed, and if I pass two such nights as the last without aid or medicine you'll have to do something else for me.

'Yours,

'C. C.'
"As there was no physician in Jerusalem Mr. Nicolayson thought it better to go to him himself, and try to bring him up; and accordingly started for Jericho in less than two hours. He did not at the time think of taking a camel with him, and only afterwards learned that Mr. Costigan had directed his servant to bring one down. The night journey was not made without much apprehension; however, the party arrived safely at Jericho on Friday morning at two o'clock.

"They found Mr. Costigan lying out under the open heaven, preferring this to the miserable hovel in which he found shelter during the heat of the day. He had had a very severe paroxysm of fever in the evening and during the night, and it had just left him in a state of extreme exhaustion. Soon after dawn the heat became so excessive that they were obliged to take shelter in the hovel.

"The whole day was spent in contriving how to convey Mr. Costigan to Jerusalem in the most easy manner. So long as he was free from fever he thought that with the assistance of one riding behind him on the same horse against whom he could lean, and one walking on each side to hold and steady him, he should be able to make his way: and three men from Siloam who were going towards Jerusalem were accordingly hired for the purpose.

"But when about four o'clock the fever returned, this became impossible, and the sheikh of the village was sent for at Mr. Costigan's request and desired to find eight men and some poles of which to make a kind of litter. The sheikh came: Mr. Nicolayson first reasoned with, then entreated him, and made all sorts of promises, but could get no other answer than that it was impossible to find either the one or the other. Mr. Nicolayson then threatened him with the vengeance of the Governor of Jerusalem, and told him that as sheikh of the village he would be held responsible for all the consequences that might result from his neglect of duty in this case. This seemed to have some effect, and he began to look about him, and to consult some of the lazy Arabs who were sauntering about smoking their pipes or talking their talk, doing absolutely nothing. But neither threats nor promises could induce them to stir, though Mr. Nicolayson engaged to pay them three times over what the Governor of Jerusalem should fix as their wages.

"The sheikh then promised to find some others when the rest of the villagers should return from the fields after sunset, and thus he left it.

"It was now necessary to try what could be done with those around to induce them to procure the necessary poles, but no answer could be got but ma'ish 'there are none.' Till Mr. Nicolayson started himself to examine, first a pile of wood where nothing could be found that would answer, and next the shelters against the sun which were attached to the huts, where Mr. Nicolayson pulled out several pieces in order to choose the best, and among the rest the beam of an old plough, promising to pay double price for all. When the Arabs saw this they were ashamed, and
at length a few began to bestir themselves and soon brought together quite a heap of pieces of wood. They now wanted ropes, and these the host furnished, and they began to tie the poles together as best they could. In the meantime evening was coming on, and no men appeared. The sheikh was again sent for. The promises and threatenings were renewed, as also his answers. The men would not obey him. They said they could not carry Mr. Costigan—all this time poor Mr. Costigan was suffering from the fever: the heat was dreadful, although a tremendous south-east wind blew and whirled the sands of the plain about in all directions. This, though evening had come on, rendered it impracticable to bring him out into the open air, however much he desired it, for the sand would have suffocated him.

"Meanwhile the three men from Siloam who had been at first engaged had left, and no others appeared to take their place.

"The mother of the host was most solicitous in her attendance on the sufferer, and showed the kindest feelings. She sat, when not engaged in preparing something for him or attending to her domestic affairs, rubbing his hands or fanning him with the long sleeves of her blue gown. And, indeed, throughout, the women showed a high degree of that kind, tender feeling of which the men seemed so destitute.

"It was now evening. No adequate number of men appeared. They would not listen to the proposal of carrying him—and no wonder, for they are in the constant habit of delegating all that is toilsome to their women; and most certainly had it been a short distance in the neighbourhood there would have been more women ready to undertake the task than were wanted, the men following smoking their pipes and gazing at the sight.

"At last a wise old woman suggested a plan that would require only three men to attend Mr. Costigan. This was to fill two large bags with chopped straw, and tie them one on each side of the broad pack-saddle, so as to form a hollow on the back of the horse. On this was spread a large fur cloak, and a couple of cushions were fixed on the neck of the horse for Mr. Costigan's head to rest upon.

"About nine o'clock in the evening, when the fever had abated, the party started in this manner, Mr. Costigan reclining on the horse, two men supporting his legs, and another guiding the animal.

"The evening being rather cool, Mr. Costigan felt strength sufficient to ride up the first very steep ascent with the assistance of the men, but on reaching the summit felt so exhausted that they were obliged to rest half an hour: and it was altogether a long, tedious, and painful night's journey to Jerusalem, it being often necessary to stop and adjust the sacks of straw.

"At length, after much difficulty, Jerusalem was safely reached at eight o'clock A.M. on Saturday, the 5th of September, and Mr. Nicolayson had the pleasure of seeing his sick friend comfortably settled in bed in
the Casa Nuova. The physician of H.E. Sherif Pasha (a European) was in attendance, and Mr. Whiting and Mr. Nicolaysen sat up at night and remained as much as possible during the day. Throughout the following day (Sunday) Mr. Costigan was free from fever, and he appeared so much better that all hoped the violence of the disease was broken, and that he would recover, yet he never believed it himself, but always said: 'No, I know better.' Towards evening the hopes of his recovery were much weakened by the return of the fever, the doctor having declared that should it return there was no hope of his standing it.

"Before midnight the attack became very severe. Up to this time Mr. Costigan had continued to have the full use of his senses. For the last two hours he ceased to speak, and breathed with great difficulty. All that could now be done was to moisten his lips occasionally with a little lemonade, and at about three o'clock on Monday morning, 7th September, 1835, Mr. Costigan peaceably breathed his last, without a struggle or a groan, and was buried the same day in the burial-ground belonging to the Latin Convent, attended by Mr. Whiting, Mr. Nicolaysen, and the monks of the convent—the deceased having been a Roman Catholic.

"As no notes were found among his papers, nothing can be known of the results of the expedition."

The gravestone of Mr. Costigan is still to be seen in the Franciscan Cemetery, but when first rediscovered it was lying upside down. It no longer marks the site of the grave, which is forgotten.

MOLYNEUX—1847.

Just nine years after the sad and tragic occurrences just narrated, a second and somewhat more successful expedition over the same route was made by Lieut. Molyneux of H.M.S. "Spartan." This frigate was then lying at Beirut, and Lieut. Molyneux obtained permission to take the ship's dingey with three able seamen, who had had previous experience of exploration in Australia, and a full supply of nautical instruments. They landed at the Bay of 'Akka and their boat was conveyed by camels to Tiberias and there launched. From the Lake of Tiberias the party, now augmented by two natives who had joined the naval party at Tiberias, started down the Jordan on August 23rd, 1847; at, be it noticed, the very same unfortunate season which had been selected by Costigan.

From the first their progress was one of great difficulty. The water was at its lowest and, after the first mile from the lake, for seven hours they "scarcely ever had sufficient water to swim a boat.
for a hundred yards together." On the 26th they were obliged to
give up navigation and carry the boat on camels as far as the Jisr
el-Mujami'a; thence Molyneux rode on the bank, directing the
seamen and their native assistants how to steer. In the tortuous
windings of the river it necessarily happened that on many occasions
he lost sight of the boat altogether. While progressing under these
circumstances, the whole party was simultaneously attacked on the
29th at a point a little beyond where the Zerka (Jabbok) joins the
Jordan. Molyneux warned off his attackers with threats, and
proceeded to the evening rendezvous in ignorance of the fate which
had overtaken his companions. After waiting long in vain for the
boat, the dragoman was sent back and found it lying in the river
empty, and on the shore near at hand lay the guide from Tiberias,
stripped naked. The sailors had entirely disappeared. The guide
narrated that the boat had, at a certain bend in the river, been
surrounded by about fifty Arabs firing muskets and throwing stones;
that one of the English sailors, having levelled his gun to fire, was
at that moment struck on the forehead and fell into the water. In
the confusion that ensued the whole party of Arabs made a united
onslaught, seized the party and, having carried them into the
thicket, stripped them of all their possessions.

After prolonged search and repeated signalling with a railway
whistle, all in vain, Molyneux decided to make his way southward.
The boat which had now been brought far enough down the river
for easy navigation, he directed should be rowed down by native
guides. He himself proceeded through thickets of tangled reeds
and thorns direct to Jericho, arriving with the baggage in the early
morning. Here, having piled up his luggage and nautical instru­
ments in a little square tower and hoisted a blue ensign as signal to
the missing men, he rested for a couple of hours, the first time for
three days and nights. When he heard of the safe arrival of the
boat on the lower reaches of the Jordan, he went up to Jerusalem
to obtain help. As he approached Bethany he met H.B.M.'s consul,
Mr. Finn, coming, with some Bashi Bazuks, to his assistance.
Mr. Finn had started expecting to be able to meet the exploring
party half way up the Jordan Valley and was greatly dismayed on
learning the lieutenant's disastrous story. I continue the narrative
in Mr. Finn's own words:

"We agreed to return to the city to procure more Bashi Bazuks from
the Pasha; and after a night's rest to march towards the Jordan in the
morning. I sent on my tent to Jericho and galloped back; entered the gate of St. Stephen, requesting the guard to admit some Englishmen coming behind me (it being just sunset and the season of Ramadan, when the gates are shut more strictly to the time of sunset), arrived at the Seraglio just as the Pasha and Kadi were sitting down to dine after the day's fast; related the history; concerted for writing immediately to Nablus and Damascus; and the Pasha promised ten Bashi Bazuks to attend us in the morning.

"Wednesday, 1st September.—Lieut. Molyneux and I met the cavalry at the Church of Sitti Miriam. They were dismounted in romantic groups and fantastic costumes; but on our approach were soon in marching order, to the tapping of their two pairs of tiny kettle-drums, one of the performers holding his horse's reins in his mouth while beating with his bits of leather strap.

"They were commanded by a Yüz-bashi, or commander of one hundred, who was a Bosnian named Mustafa Agha. The horse on which he rode had a fine saddle and saddle-cloth of bright scarlet with scarlet fringe; the creature's head and neck were adorned with strings of small silver ornaments and coins and silver chains, besides a large turquoise hanging on the nose. His best horse, equally well accoutred, was led before him by a mounted groom.

"As we passed through Bethany the houses re-echoed the thick-beating notes of the kettle-drums, and as we rested for a few minutes at the Haud, some Muslims who were there set themselves instantly to their prayer attitudes.

"Over the thirsty wilderness country, sprinkled by a few nebk-trees, and past Khatrin. Partridges seen by the roadside as large as English pheasants, of which the dragoman shot one.

"Having all effected the descent to the plain, I rode on first, and saw our British flag flying over the tower of Jericho, attached to a long Arab spear crowned by black ostrich feathers. Near this, my tent was pitched, but no intelligence had been received concerning the sailors.

"When the military party came up the motley troop formed in line to salute their Agha—holding the muskets perpendicular in the left hand, with the right they each made the Oriental salaam.

"After a few minutes we formed a committee round the tank for examination of the guide and dragoman. The result was that we determined to march as soon as the moon should rise towards the place of the disaster in search of the seamen.

"Molyneux and I returned to my tent, where we lay down for a short sleep: thermometer at 97° Fahrenheit.

"Soon afterwards a horse's tramp was heard which proved to be that of a kawass of Dr. Schultz, the Prussian consul, who, with his cousin Mr. Weber, had come from Jerusalem to investigate a particular spot in the neighbourhood. They offered to assist us in our object, but on
learning that we were to start so soon, were afraid that their tired horses were not capable of allowing them to do so. At one o'clock the moon rose over the Moab mountains . . . . The drums beat their signal and we mounted . . . . We proceeded due north, Molyneux occasionally shouting or using his powerful signal whistle, the signal which his men had been accustomed to obey. Passing the Wady 'Abd el-Keder on our left (at the opening of which is a very pretty little Muslim wely, or saint's tomb, surrounded by gardens), at about an hour after sunrise we perceived before us the smoke of kali-burning, an occupation not uncommon in the hot season of the year upon the wide plain, by scattered persons or families, for the kali plant is there most abundant and luxuriant, sometimes twenty feet in height. The ashes they carry for sale to Nablus.

"My kawass and I rode on much ahead of the rest through tangled bushes and dry old channels to the nearest of the three or four fires, and found a girl who, however, was too much frightened to give us any intelligible replies. The soldiers coming up, we rode together to the next fire and just perceived two figures of something like human beings making their escape, plunging through a stream of water and climbing up a rock on the other side quite beyond the possibility of our reach on horseback. After long repeated queries, and assurances that no harm would be done them one condescended to reply, but no information could be gained that could be of any use.

"We were now so far advanced up the plain as to be approaching the Zerka or Jabbok: but the Bashi Bazaks were grumbling at proceeding on so fruitless an expedition.

"Lieut. Molyneux also became the more convinced as we went on that the men must have made their way westwards, over the hills towards the Mediterranean, as they were well aware that the sea-coast was parallel with the Jordan; and he was willing to return to Jericho in order to pursue his investigation of the Dead Sea.

"So we dismounted and rested for about ten minutes, each man in the shadow of his own horse—no other shade existing except perhaps at some distance too great to justify the search after it.

"During the return . . . . our advanced people caught sight of three Arabs and pursued them: one of them (a wretched-looking old man with a small bundle on his shoulder) was overtaken: the others plunged into a marshy brake of wild sugar-cane and would not show themselves. We did all we could to reassure the frightened captive, explaining our real object and promising him baklashik if he would aid in recovering the lost men. It was evident that he knew nothing of any service to us.

"Further on I found in one place no less than five plants of the Asclepias gigantea . . . all of them higher than my head while on horseback. This was about an hour north of Jericho. In the distant prospect were numerous fires of kali burning, and little whirlwind columns of sand twirling upwards into the air, travelling slowly and then falling. At
one time seven in sight, at another four, etc. We had no wind near us: the reflection of heat from the ground very great, and my kawass with his face and eyes scorched and swelled, although protecting himself with a handkerchief as much as possible. We arrived at our tent exactly twelve hours after leaving it, and must have ridden in the interval above fifty miles without rest worth mentioning, without food or drink. Our night was hotter than the one preceding it.

"The Agha and his troop went into the tower, and all the women of the wretched village went to its roof, where was a flickering beacon-fire, to greet him with chorus-singing: a strange scene amid the red light, waving their arms, some clapping, some singing, and others performing the usual, nay, indispensable part of Arab chorus, viz., powerful screams between every few lines; thus:

'Mustafa Agha! Mustafa Agha!
What riches has—what houses has—
What horses has—what honours has—
Mustafa Agha! Mustafa Agha!
El-el-el-el-el-el; etc.'

"The great man then descended to our tent to arrange for the morrow's proceedings: but he was still followed by the women, performing a singing dance, with almost frantic gestures, their leader beating time with her miserable chibouque pipe: little girls joining in the fantasia screaming—

'I am a young virgin just arrived,
El-el-el-el-el,' etc.

or thus—

'Now we have leave to build more houses,
The order is come from Aleppo,
Through Mustafa Agha! Mustafa Agha!'

"These ladies are noted for being the dirtiest in all Palestine, and perhaps the ugliest. Their dress is entirely blue. At last they were so kind as to leave us, and we lay down to sleep, first killing two very large spiders, perhaps tarantulas. Small white scorpions were not rare, and the sand flies would have annoyed us at any other time. My only bed was a piece of matting, no covering. The pillow was a bag of rice. Pistols lay at my right hand, two guns at my left; and the kawass sleeping just outside, covered by his cloak.

"Friday, 3rd . . . After breakfast we all set off for the Dead Sea, the boat having been ordered to pass out of the river at the junction with the lake . . . . . The boat was brought round clear out of the river to where Lieut. Molyneux had a tent pitched on the beach, which is strewed . . . with bleached drift-timber . . . . Nautical instruments were brought out, leads and lines examined, while the grooms stripped and led their horses
into the bituminous lake, and fires were lighted behind the tent for cooking.

"The Agha sat smoking his chibouque in the tent door open to the water (thermometer 94° Fahrenheit with breeze and shade) occasionally peering through my telescope at a green patch of *durra* cultivation on the Moab Mountains. We formed motley groups from the combined party of Englishmen, Negroes, Arabs, Egyptians, Arnaouts, besides the fellah guide from near Tiberias, who having been stripped by the Arabs was now arrayed in a blue guernsey frock, blue sailor's trousers too short for his absolute comfort: he had on a blue striped turban, and he also sat like others contentedly 'drinking smoke' . . . .

"Molyneux sat down to writing up his journal (or rather copying out the rough notes), which rough notes he was to forward by my means to the ship at Jaffa. Meanwhile the Agha and I got into the boat, with a Maltese servant, and I had the unprecedented honour of taking the stroke oar in launching a British man-of-war's dingey upon [the Dead Sea]. In a short time, as the sun was falling low, we landed, and I bade farewell to our noble friend, leaving with him two Bashi Bazuks to guard his tent, and for his only assistance in the navigation his dragoman and the Maltese whom he had brought from Jerusalem—a poor creature who hardly knew one end of an oar from the other.

"There was a strong misty steam upon the water concealing distant objects, well according with the uncertainty always connected with the place, and with the approaching events.

"All but those above-mentioned retired to Jericho in order to proceed next morning (Saturday) to Jerusalem, my intention being to return after a Sunday's rest. As the sun went down the company of Bashi Bazuks separated among the sunken labyrinths of sandiness; six out of the fifteen took a different direction from us. We halted at the ruined convent of 'Ain Hajlah by starlight to fire signals and beat kettle-drums, all in vain. Soon resumed the march in single file, pattering the drums, all the way to Jericho, the Agha leading the way up and down the precipices.

"Saturday.—Arrived in the afternoon at Jerusalem . . . .

"Sunday.—Intelligence arrived that the sailors had been found at Tiberias, having made their way thither as being the last town they had left. They had wandered about for a day in search of their officer, and on the second day afterwards arrived utterly naked, two of the three carrying the wounded man. They had fed on berries, etc., as well as they could, had drank nothing from fear of approaching the river, and had travelled mostly by the late moonlight of nights.

"The Pasha being asleep, as well as the colonel of the garrison (it being still Ramadan), I could get no horseman to carry this intelligence to the Dead Sea. At length I went myself to the Seraglio, and had the Pasha awakened. He refused to grant a horseman, or do any more on our
THREE EARLY EXPLORERS IN THE DEAD SEA VALLEY.

behalf. So I sent off my kawass all alone with a letter to inform Lieut. Molyneux of the news. In the evening a fourth letter on the subject arrived, namely from Mr. Cohen who was at Tiberias.

"Monday.—At break of day I was called up by two officers of the 'Spartan,' who had left the ship at Jaffa, being sent on to meet and cheer up poor Molyneux. About noon, I started with them and their dragoman, without kawass or guard from the authorities. We shaped our course towards the Dead Sea, but as I turned aside to the tower of Jericho to get a blanket, etc., from my stores there, there was the dingey with her spars all neatly lashed, and the two camels kneeling alongside: there was his green tent and there was Molyneux himself.... The meeting of the brother officers was most affecting, with much to ask and much to tell.

"Molyneux had been two nights and a day and a half upon the water, sometimes in rough weather, and thermometer sometimes 130° Fahrenheit, in an atmosphere of steam, producing drowsiness and depression of spirits. The party had become much browner since I had left them on Friday night, and were overwhelmed with fatigue....

"Tuesday, 7th.—Early on the move.... we all started towards Jerusalem.... The whole party stayed for repose and arrangement of business till Friday, 10th, when they left Jerusalem shortly before the guns announced the close of Ramadan. They proceeded by the road to Lydd, as the best for conveyance of the boat. I was informed afterwards of their safe arrival at Jaffa, and of the unbounded joy of the 'Spartan's' crew—the men sobbing in tears, and shouting at the sight of their beloved officers beside them: skipping round the dingey and vowing she should never be washed from the slime of the Dead Sea.

"The three seamen of the expedition, having been forwarded to Beirut, were left there for rest and medical treatment.

"But the most melancholy tale remains to be added. Lieut. Molyneux had suffered greatly in mind and body ever since leaving Tiberias; physically, of course, during the examination of the Dead Sea. About the last words that I heard from him were: 'Yes, I am doing pretty well now, no fever yet, but when I get on board and the excitement is over, then I shall catch it.' He was exceedingly scorched, restless, and his eyes greatly inflamed. It is not much to be wondered at that in a few days after our parting he fell a victim to a fever, the virulence of which baffled all the medical skill that could be found in Beirut or summoned from Damascus. We, as well as his more intimate friends, felt deeply such a termination of so short an expedition.

"The naval service sustained no small loss in a young man of first-rate mathematical science, of herculean strength, and great skill in the use of fire-arms. His other naval merits are better known to his brother officers in the service than to us: but I shall not soon forget his amiable manners and his conversation, of a steady, unpretending, religious tone.
"It may be enquired why, with such apparently inadequate means, so formidable a task should have been undertaken: but it was precisely because the display was not great that he expected to succeed better than with an expensive parade, to attract attention and invite a coalition of Arab tribes to impede him. He felt great confidence in his personal strength, in his conscious force of mind, in the faithfulness of his three fine men (two of whom had been previously engaged in explorations in Australia), in the soundness of his boat, and in the excellence of his nautical instruments.

"By means of a native Protestant teacher travelling on the eastern side of the Jordan (who, on hearing of the disaster, hastened to represent to the plunderers the danger of injuring the English), the articles stolen have been mostly restored to the owners. They were of no great value, because the scientific instruments, the food, and the tent were mounted on camels and proceeding with the officers in advance of the main attack.

"As it is my object merely to state circumstances of my own personal presence in connexion with this expedition, I have only to add that I have recently found in the visitor's book at Tiberias the following entry:—

"'September the 3.

'We three Seamen belongen to her M.S. Spartan was received with kindnesse at this house, we were wrett out food or Ramant 3 dayes before we came hear.

'And the Landlord supplyd us with Bouth, tharfore we recomend this house to travelcars.

'(Signed)

'Ian Grant.

'John Lescomb.

'George Winter.'"

LYNCH—1848.

These two tragic pioneer attempts paved the way for the great American expedition of 1848. The first failures had been due to insufficient preparation, want of a guard against those rapacious and, at that time, dangerous marauders, the Bedouin, and perhaps most of all the selection (in ignorance of the climate) of the worst season of the year, when the Dead Sea valley is a veritable furnace and the Jordan reduced to its lowest level. All these mistakes were guarded against in the new attempt.

Lieut. Lynch's expedition landed at 'Akka, March 31, 1848, from the American storeship "Supply." The staff consisted of Lieutenants Lynch (in command) and J. B. Dale, Midshipman R. Aulick, Dr. Anderson, Mr. Francis Lynch, a botanist, and ten able
seamen, one of whom was a trained mechanic. Soon after landing, the party put themselves under the protection of the most powerful Bedouin chief of the day, 'Arkely Agha, a man who in all the district had more power and authority than the whole Turkish administration. He and his followers protected the expedition from first to last. With this party were carried two specially constructed boats: one a copper boat, named the "Fanny Mason," the other an iron boat, the "Fanny Skinner." At Tiberias a small wooden boat, called "Uncle Sam," was added to the flotilla; this, however, came to grief in the rapids of the Jordan soon after starting.

On April 10th the imposing procession, three boats by water and a party of no less than thirty horsemen along the banks, started from the outlet of the Jordan. What a contrast to poor Costigan and his solitary Maltese! Lynch himself took charge of one boat and Midshipman Aulick took charge of a second, while Lieut. Dale commanded the land forces. After great difficulties and through indefatigable perseverance, the metal boats traversed the numerous cataracts, rapids, and waterfalls, and finally, on April 19, safely reached the Dead Sea, having descended about two hundred miles of river.

The party then navigated the Dead Sea in all parts from this date until May 9. Its shores were surveyed, its depths sounded, and temperatures taken. Careful geological, botanical, and meteorological observations were made. The party experienced the vicissitudes of storm and calm, and especially were oppressed by the sweltering heat. But all manfully stuck to their posts. After quitting the region, most of the party suffered from fever. Later Lieut. Dale, on July 24, succumbed in the Lebanon to the privations he had here undergone.

One may safely say that more knowledge of the Dead Sea was acquired by this one expedition of Lieut. Lynch than had been gained by the previous ventures. On the foundations then laid all our subsequent knowledge is built. Many have come since to add information whose researches are fully accessible to all. The names of de Saulcy, Rob-Roy Macgregor, Tristram, Lartet, and the Duke of Luynes, and Hull, of the Palestine Exploration Fund, must ever be remembered in connection with the exploration of the Jordan Valley in the latter half of the nineteenth century, as Costigan, Molyneux, and Lynch are to be remembered for their work in the earlier years.