THE

LIFE OF MAJOR-GENERAL

SIR HENRY MARION DURAND,

K.C.S.I., C.B.,

OF THE ROYAL ENGINEERS.

BY

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their season in camp, and the chance was never neglected. It was delightful to escape from the steam of the rain-sodden plains and to revel for a few days in the enjoyment of pure air, and of what is perhaps the finest scenery in the world. A rough march in the early morning, and a bathe in the nearest stream, rapidly dammed up for the occasion, would be followed by a hearty breakfast and a long day in the woods with gun and paint-box. The latter was my father's favourite. If he could find a spot to his heart's content among the ferns and wild flowers, with the huge trunks of the deodars rising around him, and the glorious line of the snowy range cutting up into the northern sky, he would leave the pheasants and jungle-fowl in peace, and sit for hours sketching untiringly, until the fading of the sunset flush upon the peaks warned him that it was time to rise. A large number of sketches taken at this time are now amongst his well-filled portfolios.

When the short holiday came to an end my father returned to his canal work in camp, and, on the setting in of the hot weather of 1834, to Dadoopore, where he remained busy with his books until the autumn. During the rainy season a second attempt to see active service, this time in the Rajput State of Jodhpore, had proved unsuccessful, and his letters show that he was in low spirits, fretting at the monotony of his life, and the apparent hopelessness of gaining military experience early in his career. Better, he said, have been a civilian at once than "a soldier merely in name and coat." But the pardonable vexation soon passed over; and towards the close of the year his thoughts were turned in a new direction, and his enthusiasm aroused, by a remarkable piece of good fortune which fell to the lot of the canal staff. For some time past Captain Cautley and Dr. Falconer, afterwards well known to men of science, had devoted considerable attention to the Sewalik hills, a low range lying at the foot of, and parallel to, the Himalayas. In 1831 Falconer had proved beyond a doubt that these hills belonged to the tertiary age, and since then he had been searching, with little success, for animal remains. He was convinced that they would be found, and his belief was strengthened by a passage of Ferishta's history, translated by Dow, according to which skeletons of elephants, and of a gigantic human form, had been found in this neighbourhood during the reign of Feroze-shah the Third. Both Falconer and Cautley did in fact succeed in unearthing a few fossils, but until 1834 their labour was scantily rewarded, and my father and Lieutenant Baker, who had joined in the search, were not more successful. In October of that year

all their doubts were cleared up by the sudden discovery of some extraordinarily rich deposits, a discovery which startled the scientific world, and in the course of a few years contributed very materially to the development of the study of palæontology. This "find" came about by chance. The engineers had, for some days, been hammering at the rocks near Nahun, the capital of the little Native State of Sirmoor, and in reply to a question from the Rajah regarding the object of their search, they had been able to display a few crocodiles' teeth. With a smile at this insignificant result of their labours, the Rajah sent for what he called the tooth of a Deo. It weighed nearly twelve pounds, and was afterwards determined to be a molar of the Mastodon latidens. At the same time he told the engineers where such relics were to be found in abundance, and searching parties were immediately sent out. They reaped a splendid harvest, and from this time Cautley, Baker, and my father were enthusiastic palæontologists. During the next two or three years they collected many tons of fossil remains, the best of which now enrich the museums of India and Great Britain. The value of these collections is attested by Dr. Murchison in his Palæontological memoirs of Falconer. "By the joint labours of Cautley, Falconer, Baker, and Durand," he writes, a "sub-tropical mammalian fossil fauna was bought to light unexampled for richness and extent in any other region then known." It included the earliest discovered fossil quadrumana, and numberless extinct species of colossal animals which had peopled the world in days gone by. All the mammalian remains belonged to these extinct species, but some of the reptilia and freshwater shells were identical with existing forms, and from this fact Dr. Falconer was led to draw important inferences as to the antiquity of the human race.

For the identification of these remains some knowledge of comparative osteology was necessary, and it was not an easy matter, fifty years ago, to acquire such knowledge on the north-west frontier of India. But by dint of hard work the difficulty was overcome. Cuvier's "Recherches sur les ossements fossiles" supplied the foundation; and the surrounding forests, rivers, and swamps were drawn upon for the rest. A large collection of skeletons was prepared; the extinct forms were compared with existing types; and after a short time the young officers were able to send papers descriptive of the most interesting specimens to the journal of the Asiatic Society, then under the management of its talented and energetic founder James Prinsep. These papers will be found in the third, fourth, and fifth volumes of the journal, and

I learn from information supplied by Lieutenant, afterwards Sir William, Baker, that the plates illustrating the articles, whether lithographed or engraved on copper, were for the most part furnished by the contributors. "Lieutenant Durand," he writes, "was an accomplished draughtsman, and though accustomed to the use only of the pen and pencil, he soon found he could wield the graver with considerable effect."

I have dwelt upon this part of my father's early life because the taste for geology and its kindred studies which he first acquired among the Sewalik fossils always remained with him. From this time forward he took a strong scientific interest in the subject; and wherever he was employed, from Burmah to Afghanistan, he found some leisure to follow it up. Long after the canal staff of 1834 and their fossil collections had been scattered, I find him deep in correspondence with Dr. Buist upon the geological features of India; and in 1851 an article from his pen, which shows no small acquaintance with the researches of others, appeared in the *Calcutta Review*. Ten years later, when he was in the Secretary of State's Council, and living at East Sheen, the old interest was revived and strengthened by conversations with Professor Owen, who happened to be a near neighbour.

My father's connection with the canals closed in 1837. In the middle of that year he was placed by Lord Auckland on special duty in connection with a project for draining and reclaiming the Nujjufgurh swamp near Delhi; and the survey of this tract of country kept him employed throughout the following cold weather. It was at this time that he made the acquaintance of the new Governor-General. When the head-quarters camp arrived at Delhi, Lord Auckland sent for him, and discussed with him a variety of points regarding irrigation canals generally, and the special duty on which he was engaged. Apparently he created a favourable impression, for his report upon the Nujjufgurh jheel had hardly been sent in before he was again selected for promotion. The Surveyor-General, Colonel Everest, finding himself overworked, had applied for a deputy to assist him in the management of the Great Trigonometrical Survey, and Lord Auckland at once named my father as the best man for the duty. Colonel Everest agreed, and he was informed of the proposal in a letter from his friend Proby Cautley, who wrote: "Rely upon it, Durand, here is an opening. The idea of your value is universal in the Lord's camp, and Everest would be delighted at your approval of