

1860, leaving a wife and family to lament a kind and affectionate husband and parent. He joined the Institution as an Associate in the year 1850, and took much interest in the proceedings, frequently attending the meetings and assisting in the discussions.

COLONEL ROBERT KEARSLEY DAWSON, C.B., of the Royal Engineers, the eldest son of Mr. Robert Dawson, of the Corps of Royal Military Surveyors and Draftsmen, was born in the year 1798. He joined the Royal Military Academy, at Woolwich, in 1812, and obtained his Commission in the Royal Engineers, in 1815.

After serving for a short time at Chatham, he was attached to the Trigonometrical branch of the Ordnance Survey of Great Britain, and was employed in Scotland under Major Colby, in conjunction with Captains Vetch and Robe, and his old college friend, Lieutenant Drummond. In the rugged Highlands, in that northern portion of the island, the trigonometrical operations—of which the stations were of necessity always on the highest summits—involved, in the selection of the most suitable points, an amount of toilsome marching which can be appreciated only by those who have had experience of it. Unlike the hardy hunter of the red deer, in search of manly sport, and healthy recreation and exercise, the station hunter has no comfortable home to receive him at night. He must take up his quarters in the nearest shelter, and resume his walk at earliest dawn. In General Portlock's Memoir of the late Major-General Colby,¹ some of the adventures and the enjoyments of the mountain camp are graphically described, in a letter from Colonel Dawson; and such was his duty in the early period of his connection with the Survey.

In 1822, the operations for the triangulation of Scotland were suspended, and Lieutenant Dawson was stationed at the Tower of London, in local charge, under Captain Mudge, of the Map Office. In that duty he was eminently useful, for among his other professional acquirements, Lieutenant Dawson was an artist of considerable capacity:—and to his taste, in conjunction with the skill of his no less accomplished father, the great perfection attained in the delineation of ground on the English Ordnance Maps, is mainly to be attributed. Lieutenant Dawson, at this time, also shared largely in the scientific pursuits and occupations of his friend Drummond, who was likewise retained in London during the interval between the suspension of the Scotch, and the commencement of the Irish survey. Here he

¹ *Vide* "Papers on Subjects connected with the Duties of the Corps of Royal Engineers," vol. iii. New Series. 8vo. London, 1853, p. liv.

continued to be employed for several years, and for a time his career was intimately connected with that of Drummond. In 1830, the outline survey of the North of Ireland had become sufficiently advanced to enable the General Map on the smaller scale to be commenced, and for that duty Lieutenant Dawson's experience on the English survey rendered him pre-eminently fit. He was accordingly selected for it by Colonel Colby, and removed to Ireland, being stationed first at Londonderry, and afterwards at Ballymoney in the county of Antrim. On this duty he remained until 1836. During this period he was withdrawn to England for a time in 1831, at the instance of his friend Drummond, to be employed in conjunction with him on the Parliamentary Reform Bill, where Lieutenant Dawson's topographical knowledge became conspicuous, in the arrangements for rapidly producing plans of all the boroughs, and the correct delineation of the boundaries within which the elective franchise was to be exercised, as well as those to be used for the divisions of counties. Again, in 1835, he was called upon to take a similar part in the measures for Municipal Reform in the English boroughs, then contemplated by the Government, and proceeded to London for that purpose. He resumed his duty in Ireland for a short time, and laboured zealously: and as before, not only in that branch of the Survey, but in the collection of statistical and antiquarian materials for the General and Descriptive Memoir, which it was then contemplated to publish in connection with the maps. He was not destined, however, to remain in Ireland; for in 1836, the Commutation of Tithe was rendered general in England, and for that purpose maps on a much larger scale than then existed, were required. To the charge of a department for that purpose Lieutenant Dawson was called, and he was appointed an Assistant Commissioner, in England, under the Tithe Act of that year. Lieutenant Dawson speedily perceived that an opportunity was thus afforded for producing a Cadastral Survey, and he drew up an admirable code of instructions for the production of the separate Parish Maps on an uniform scale and system, devising at the same time a means of connecting and combining them. This is explained in a Paper laid before Parliament, and printed in the Session of 1837.¹ The Tithe Maps, thus prepared, form a most valuable collection, consisting of about twelve thousand Parish Maps, which are still largely used for all purposes connected with land. To this bold experiment, and to the success which attended it, it is not too much to say, that the country owes the ultimate establishment of the large scale on which the Ordnance

¹ *Vide* "Survey of Lands (Tithe Act). Copy of Papers respecting the proposed Survey of Lands under the Tithe Act, 10th March, 1837." Vol. 41, Parliamentary Papers, Session 1837, page 333.

Survey, in the outline maps, is now so admirably carried into effect, under the present able conductor of the Survey, Colonel Sir Henry James, C.B., F.R.S. (Assoc. Inst., C.E.) On the increased scale, and the uses to which it was applied, and to which it became more and more applicable, rapidly followed the discussion on the introduction of the decimal, or proportionate scale, now adopted; and the controversy on the relative advantages of contouring, and of other modes of indicating the heights and undulations of ground. The reports and evidence on these subjects are embodied in a Parliamentary Volume;¹ and the (perhaps, too great) heat with which the discussions were conducted, like the 'Battle of the Gauges' evinces at once the ardour of the advocates of the several systems, and the real importance of the subject to the practical Engineer. To the Tithe Commission, the Copyhold and Enclosure Commissions were subsequently added, and on that combined duty Colonel Dawson continued to be employed in the same capacity as before.

In addition to the official duties more immediately intrusted to him, Colonel Dawson became, from his acknowledged ability and integrity, the established referee of the Government and the Treasury on Colonial Surveys,² and indeed on all subjects in which Topographical knowledge and work were required. He was also appointed a member of the first Metropolitan Sewers Commission. His judgment became more and more matured; his knowledge increased, and his powers of labour never flagged. Though of delicate constitution originally, he continued to enjoy as good health as constant office duty usually affords: until a sharp and unexpected illness, from congestion of the lungs, hurried him rapidly to the grave, in March, 1861, at the age of sixty-two years.

He remained on the active list of the corps of Royal Engineers till the rules of the service compelled him to retire. He attained by successive steps the rank of Colonel, and received the distinction of Companion of the Bath, for his service in a civil capacity. In the midst of pressing official occupation, he was ever ready to assist, with his purse and advice, any deserving person; and his charitable and kind disposition caused him to be generally beloved and admired. He had been an Associate of the Institution exactly twenty-three years on the day of his death, and occasionally attended the meetings, when he felt interested in the subject under discussion.

¹ *Vide* "Ordnance Maps. Correspondence respecting the Scale for the Ordnance Survey; and upon Contouring and Hill Delineation." With Maps. 1854, and Vol. 41, Parliamentary Papers, Session 1854, page 187.

² *Vide* "Report on Surveying considered with reference to New Zealand, and applicable to the Colonies generally, Addressed to the Right Hon. Lord John Russell, 22nd Dec., 1840." London: Clowes and Sons, 1840.