

CHAPTER IX. THOMAS STEVENSON—CIVIL ENGINEER

The death of Thomas Stevenson will mean not very much to the general reader. His service to mankind took on forms of which the public knows little and understands less. He came seldom to London, and then only as a task, remaining always a stranger and a convinced provincial; putting up for years at the same hotel where his father had gone before him; faithful for long to the same restaurant, the same church, and the same theatre, chosen simply for propinquity; steadfastly refusing to dine out. He had a circle of his own, indeed, at home; few men were more beloved in Edinburgh, where he breathed an air that pleased him; and wherever he went, in railway carriages or hotel smoking-rooms, his strange, humorous vein of talk, and his transparent honesty, raised him up friends and admirers. But to the general public and the world of London, except about the parliamentary committee-rooms, he remained unknown. All the time, his lights were in every part of the world, guiding the mariner; his firm were consulting engineers to the Indian, the New Zealand, and the Japanese Lighthouse Boards, so that Edinburgh was a world centre for that branch of applied science; in Germany, he had been called “the Nestor of lighthouse illumination”; even in France, where his claims were long denied, he was at last, on the occasion of the late Exposition, recognised and medalled. And to show by one instance the inverted nature of his reputation, comparatively small at home, yet filling the world, a friend of mine was this winter on a visit to the Spanish main, and was asked by a Peruvian if he “knew Mr. Stevenson the author, because his

works were much esteemed in Peru?" My friend supposed the reference was to the writer of tales; but the Peruvian had never heard of Dr. Jekyll; what he had in his eye, what was esteemed in Peru, where the volumes of the engineer.

Thomas Stevenson was born at Edinburgh in the year 1818, the grandson of Thomas Smith, first engineer to the Board of Northern Lights, son of Robert Stevenson, brother of Alan and David; so that his nephew, David Alan Stevenson, joined with him at the time of his death in the engineership, is the sixth of the family who has held, successively or conjointly, that office. The Bell Rock, his father's great triumph, was finished before he was born; but he served under his brother Alan in the building of Skerryvore, the noblest of all extant deep-sea lights; and, in conjunction with his brother David, he added two—the Chickens and Dhu Heartach—to that small number of man's extreme outposts in the ocean. Of shore lights, the two brothers last named erected no fewer than twenty-seven; of beacons, {84} about twenty-five. Many harbours were successfully carried out: one, the harbour of Wick, the chief disaster of my father's life, was a failure; the sea proved too strong for man's arts; and after expedients hitherto unthought of, and on a scale hyper-cyclopean, the work must be deserted, and now stands a ruin in that bleak, God-forsaken bay, ten miles from John-o'-Groat's. In the improvement of rivers the brothers were likewise in a large way of practice over both England and Scotland, nor had any British engineer anything approaching their experience.

It was about this nucleus of his professional labours that all my

father's scientific inquiries and inventions centred; these proceeded from, and acted back upon, his daily business. Thus it was as a harbour engineer that he became interested in the propagation and reduction of waves; a difficult subject in regard to which he has left behind him much suggestive matter and some valuable approximate results. Storms were his sworn adversaries, and it was through the study of storms that he approached that of meteorology at large. Many who knew him not otherwise, knew—perhaps have in their gardens—his louvre-boarded screen for instruments. But the great achievement of his life was, of course, in optics as applied to lighthouse illumination. Fresnel had done much; Fresnel had settled the fixed light apparatus on a principle that still seems unimprovable; and when Thomas Stevenson stepped in and brought to a comparable perfection the revolving light, a not unnatural jealousy and much painful controversy rose in France. It had its hour; and, as I have told already, even in France it has blown by. Had it not, it would have mattered the less, since all through his life my father continued to justify his claim by fresh advances. New apparatus for lights in new situations was continually being designed with the same unwearied search after perfection, the same nice ingenuity of means; and though the holophotal revolving light perhaps still remains his most elegant contrivance, it is difficult to give it the palm over the much later condensing system, with its thousand possible modifications. The number and the value of these improvements entitle their author to the name of one of mankind's benefactors. In all parts of the world a safer landfall awaits the mariner. Two things must be said: and, first, that Thomas Stevenson was no mathematician. Natural shrewdness, a sentiment of

optical laws, and a great intensity of consideration led him to just conclusions; but to calculate the necessary formulæ for the instruments he had conceived was often beyond him, and he must fall back on the help of others, notably on that of his cousin and lifelong intimate friend, emeritus Professor Swan, of St. Andrews, and his later friend, Professor P. G. Tait. It is a curious enough circumstance, and a great encouragement to others, that a man so ill equipped should have succeeded in one of the most abstract and arduous walks of applied science. The second remark is one that applies to the whole family, and only particularly to Thomas Stevenson from the great number and importance of his inventions: holding as the Stevensons did a Government appointment they regarded their original work as something due already to the nation, and none of them has ever taken out a patent. It is another cause of the comparative obscurity of the name: for a patent not only brings in money, it infallibly spreads reputation; and my father's instruments enter anonymously into a hundred light-rooms, and are passed anonymously over in a hundred reports, where the least considerable patent would stand out and tell its author's story.

But the life-work of Thomas Stevenson remains; what we have lost, what we now rather try to recall, is the friend and companion. He was a man of a somewhat antique strain: with a blended sternness and softness that was wholly Scottish and at first somewhat bewildering; with a profound essential melancholy of disposition and (what often accompanies it) the most humorous geniality in company; shrewd and childish; passionately attached, passionately prejudiced; a man of many extremes, many faults of temper, and no very stable foothold for himself among life's troubles.

Yet he was a wise adviser; many men, and these not inconsiderable, took counsel with him habitually. "I sat at his feet," writes one of these, "when I asked his advice, and when the broad brow was set in thought and the firm mouth said his say, I always knew that no man could add to the worth of the conclusion." He had excellent taste, though whimsical and partial; collected old furniture and delighted specially in sunflowers long before the days of Mr. Wilde; took a lasting pleasure in prints and pictures; was a devout admirer of Thomson of Duddingston at a time when few shared the taste; and though he read little, was constant to his favourite books. He had never any Greek; Latin he happily re-taught himself after he had left school, where he was a mere consistent idler: happily, I say, for Lactantius, Vossius, and Cardinal Bona were his chief authors. The first he must have read for twenty years uninterruptedly, keeping it near him in his study, and carrying it in his bag on journeys. Another old theologian, Brown of Wamphray, was often in his hands. When he was indisposed, he had two books, Guy Mannering and The Parent's Assistant, of which he never wearied. He was a strong Conservative, or, as he preferred to call himself, a Tory; except in so far as his views were modified by a hot-headed chivalrous sentiment for women. He was actually in favour of a marriage law under which any woman might have a divorce for the asking, and no man on any ground whatever; and the same sentiment found another expression in a Magdalen Mission in Edinburgh, founded and largely supported by himself. This was but one of the many channels of his public generosity; his private was equally unstrained. The Church of Scotland, of which he held the doctrines (though in a sense of his own) and to which he bore a clansman's loyalty, profited often by his time and money; and though, from a morbid sense of his own

unworthiness, he would never consent to be an office-bearer, his advice was often sought, and he served the Church on many committees. What he perhaps valued highest in his work were his contributions to the defence of Christianity; one of which, in particular, was praised by Hutchinson Stirling and reprinted at the request of Professor Crawford.

His sense of his own unworthiness I have called morbid; morbid, too, were his sense of the fleetingness of life and his concern for death. He had never accepted the conditions of man's life or his own character; and his inmost thoughts were ever tinged with the Celtic melancholy. Cases of conscience were sometimes grievous to him, and that delicate employment of a scientific witness cost him many qualms. But he found respite from these troublesome humours in his work, in his lifelong study of natural science, in the society of those he loved, and in his daily walks, which now would carry him far into the country with some congenial friend, and now keep him dangling about the town from one old book-shop to another, and scraping romantic acquaintance with every dog that passed. His talk, compounded of so much sterling sense and so much freakish humour, and clothed in language so apt, droll, and emphatic, was a perpetual delight to all who knew him before the clouds began to settle on his mind. His use of language was both just and picturesque; and when at the beginning of his illness he began to feel the ebbing of this power, it was strange and painful to hear him reject one word after another as inadequate, and at length desist from the search and leave his phrase unfinished rather than finish it without propriety. It was perhaps another Celtic trait that his affections and emotions, passionate as these were, and liable to passionate ups and downs, found the most eloquent expression both in

words and gestures. Love, anger, and indignation shone through him and broke forth in imagery, like what we read of Southern races. For all these emotional extremes, and in spite of the melancholy ground of his character, he had upon the whole a happy life; nor was he less fortunate in his death, which at the last came to him unaware.