THE life of this well-known exponent of science, whose scholastic achievements are ineffaceably impressed on the goldfields development of Western Australia, needs no lengthened preamble or prologue to enlist attention and attraction. The name serves recall by various mental associations memory-images of his many felicitous exploits, and the splendid benefits he has conferred upon the colony. By that inductive skill which is born of logical and scientific attainments, he has constituted himself one antecedent of this national auriferous prosperity

Mr. Stephen Göczel was born in Hungary in 1856. While still young be had undergone the severity of an advanced education, both at Vienna and Freibourg seminaries. This classical instruction German educationists wisely make compulsory on the basis of its utility for the easy manipulation of cumbrous scientific layers which the student may subsequently superimpose on his plastic mind. At the end of his curriculum he proceeded to the science halls of Vienna. He became bent on acquiring a full systematic course of study on all scientific subjects that are consummated in the phrase—" Mining knowledge." Chemistry, mineralogy, and metallurgy were first embraced with an alacrity conceived of a scientific nature, and their interesting problematic solutions, reactions, and experiments writ large with indelible letters on his impressionable mind.

Still impatient of finite limits being assigned to his extension and intension of knowledge, he entered the Schemnitz Academy of Mines, where he was confident that valuable insight would be gained into sunken, intricate departments of science. Here he completed his student labours, and looked back with no small amount of glee at the elaboration of his scientific building which his own handicraft had in these years erected. Resting on the sound foundations of classics grew up an edifice of knowledge, whose every stage seemed in its rapid progress to annihilate the artistic beauty of the former, and whose culminating copingstone did copious grace to a homogeneous whole. The degree M.E. could not be more meritoriously assigned.

From there he passed to the Freibourg Academy of Mines, where his mental horizon widened with the expansion and extension of many avenues of knowledge. His midnight lucubrations signified the accumulation of a rich and complex store of scientific information. The multilateral data of knowledge gleaned with a scrutinising eye and a keen observation from experiments successfully carried out in laboratories satisfied his investigations as to the existence of a cause or agent for every consequent. Experimental proofs of cause and effect gradually induce the scientific mind to break down the barriers between *priori* and *prosteriori*, thereby finding every "ens" a cause that lies within the boundaries of a world of sense and experience.

His *débût* in the commercial world was witnessed before the scenes of Hungary. Trusting in his capabilities, which, if recognised, would force attention, he set up a private practice within its precincts. A little patience, a few opportunities and a careful and successful management of the same, made his door to success stand ajar. Clients who sought his learned report saw in him a man of scientific attainments, whose accuracy and comprehensiveness could not but originate from a judgment as calculating as it was keen. He was now known by responsible men of high intellectual status, who were not slow to avail themselves of his able assistance. He obtained the managership of some silver and copper mines in Hungary. His supervision here proved that his volume of acquisitions was no more reference department. They permeated the mechanical routine of practice by a labyrinth of passages.

With fair empirical qualifications he left Europe to extend the scope of his research and utility on the broad auriferous fields of Australia. He arrived in Sydney in 1888, and on a foreign shore he tightened the strain of endeavour to amass for himself a practice that would at least recompense for his venture, and his long period of scientific devotion. Modesty, which rules with a sway of humility over a well-informed mind, made his expectations and anticipations subservient to its call. Never could another doubt, however, but that he would by natural laws find his true level.

From Sydney he set out on lengthened tours through the principal goldfields of Queensland and Tasmania. These different areas he subjected to a full geological analysis, with an accurate and impartial criticism of their auriferous wealth. He satisfied himself as to their worth by careful personal investigation. On returning to Sydney at the conclusion of his tour he deemed it expedient to migrate to Western Australia, which was now showing appreciable symptoms or development. He sailed for Western Australia in 1892, encumbered with no commissions, obligations, or representative appointments, so that his early career in this colony might be more fruitful under free, unfettered control. Responsible to his own "ego" alone, he set out on a drearsome journey to the Murchison, with a patient camel as his philosopher and friend on this tedious, uncertain route. He was the first individual on a camel by himself on the Murchison, though the honour of being the absolute first is claimed by the Elder Exploration Company, who arrived at the Muurchison some little time before.

He travelled over all the Murchison Goldfields, making careful abstractions from the concrete surroundings. The geological features of these fields engaged no inconsiderable amount of attention at his hands. Even the most microscopic minutiæ, which the unversed might sullenly stigmatise as useless, received the exact *quantum* of examination from his reasoning judgment. His exhaustive observations were published in the Geraldton papers, together with a pleasing *résumé* of his travels. Results logically superinduced from geological premises whose truths were warrantable strengthened his confidence in the wealth of its auriferous resources, and caused him to approach friends and influential personages in the Eastern colonies with a view to financial co-operation in their development. But the ill-starred crisis of repeated bank failures rendered any auxiliary assistance in the way of capital impossible. Seeing that successful operations were compatible with conjoined efforts alone, he left and returned to Perth.

Soon after his arrival he was commissioned by the late Hon. W. E. Marmion, Minister of Crown Lands and Mines, to specially report on the intervening gold-bearing areas between Esperance and Bayley's Reward. He started on the expedition on the 4th June, in company with Mr. Brazier's survey party, and made an exhaustive and complete survey from the Reward to Esperance. He touched in his scientific reports on the outlines of its general geological and physiographical features. In his reports we find that he marked out the Red Kangaroo Hills as auriferous. The accuracy of his conclusions is substantially confirmed by the subsequent discovery of the famous Londonderry in that area which he had designated gold-productive on the chart. On his way lay a district named Norseman, and its undeniably auriferous appearances engaged his deepest scientific arguments in support of his impressions. Geological and mineralogical evidences were summoned to form the eirenicon of truth. Norseman to-day has the productive capacity that he foretold there would be.

He arrived at Esperance and directed his course along the shore to Albany, and took rail from there to Perth. His commission had been so pregnant with prosperous issues that Mr. Marmion, after profuse congratulations, requested him to undertake a similar expedition from Bayley's northwards through interlying areas to Menzies. Mr. Göczel set out from Bayley's, and examined with extraspective minuteness and thoroughness its curious formations and its geological kaleidoscope. He gradually reached what is now known as Menzies, and accredited that spot with unseen auriferous wealth. Bringing to bear on his conclusions a mass of cumulative evidence, scientifically conceived, readers of his reports could not but follow in his wake and place full reliance on his authentic and authoritative statements.

On to Niagara, which he, as forerunner, baptised the waterfall, he pushed his way, crossing from there, through thicket and bush, across dunes and deserts, to Lake Carey. A welcome surprise was in store for him in the latter place. Fully 300 men had arrived in that outlandish spot, having rushed hither because of its alleged productivity. From there he retraced his steps, swooping down towards the Murchison, where he made expert reports on all the important mines.

It would be impossible to omit mention of the interesting and instructive report furnished to the Government from observations gleaned and sifted by him on his two expeditions. His geological notes on the traversed country between Coolgardle and Esperance are written concisely, briefly, and *embonpoint*. The information it contains, though didactic and impregnated with scientific phraseology, is yet full of vivacious interest even for the lay mind. Well-illustrated sketches and sections not only enliven the report, but afford the reader a more panoramic and simplified view of solid facts. The real value of the work lies in its discoveries, its careful lithological anatomy, and the shrewd analysis and synthesis of data that warrant the truthful assumption of assigning to the area under examination metalliferous, argentiferous, and auriferous wealth, as the case may be. His other report must also be justly eulogised for its unsurpassable contribution to the geological and mineralogical knowledge of this wide province. Its avoidance of vague, indiscriminate technicalities, its direct and unvarnished exposition of the truth, render it more appreciative at a time when "auriferous hyperbole" is all too common. The amount of material which creeps in unintruding into its concise paragraphs render, it a complete synopsis for the aspirant to geological superiority.

He severed his connection with the Government in January, 1895, and since then he has practised privately as a mining engineer. A regret is felt at the dilatoriness of the Government in publishing his reports. Had they received the amount of justice which was their due, his reputation would have been commensurate with his exploits. By this governmental misadventure predictions were realised before they themselves were published. Still, the perusal of these pages will demonstrate the great efficiency of one whose humility did not permit of self-glorification. Many venturesome prospector has to thank Mr. Göczel's utility for the possession of a golden harvest made discoverable by his agency. Often, too, has the Government availed itself of his suggestions for the improvement and developments of fields which Mr. Göczel happily characterises as rich repositories of gold. His deductions augur well for the future greatness of the colony, and judging from the correctness of his prospective judgments in the past, we must hold this as a welcome truth.

[Following the historical narrative is an article from the pen of Mr. Göczel.]