

cessful and economical a factor in mining elsewhere. At present 100 to 120 tons of ore per day are being brought down from Rossland by the Tramway, but this amount will be greatly increased. At the smelter 140 to 160 tons, it is stated by the management, (July 29) are being smelted daily, with a concentration of about twenty tons into one ton of matte, which matte goes to Butte to be refined; but already the foundations for a refinery at the smelter are nearly completed, in which the matte, after being crushed, will be further calcined in a reverberatory to be constructed, and then resmelted in two of the present reverberatories, after which the product will be treated so as to yield a high grade copper matte for export, from which 80 to 90 per cent. of gold and silver value has been separated for special refining and parting at these works.

From 175 to 200 men are employed, and when all these improvements are completed, this smelting plant will be well-equipped and capable of handling 350 to 400 tons of ore daily; and if the demand increases a still larger plant can easily be added. Again, with the increased means of transport, and the building of roads into other mineral producing districts, access to other classes of ore may greatly better and cheapen the process of smelting.—*William A. Carlyle's Report.*

Hon. Col. Baker, Minister of Mines.

LT.-COL. THE HON. JAMES BAKER, Minister of Education, Immigration and Mines, and Provincial Secretary for British Columbia, is a man whose type is seldom found in public life in Canada. Apart from his official position and his individuality, special interest attaches to him as belonging to the celebrated Baker family, of whom Baker Pacha and Sir Samuel Baker are too well-known to require introduction to any of our readers. Col. James Baker was the youngest of these brothers, and had fortune thrown his lot in similar lines it is quite legitimate to assume that a fame not less shining would have been his, because in keenness of intellect, dash and personal physique and courage he shared these qualities with his distinguished brothers, who became world-noted thereby. Hence in British Columbia, as he would be anywhere in the Empire, Col. Baker is an interesting figure. In his own way he has had a career scarcely less noted than Sir Samuel and Baker Pacha, though, as often occurs, the one is obscured by the greater fame of the other. Briefly, it has been as follows: He was born in London, England, in 1830, being a son of the late Samuel Baker, Esq., formerly of Gloucester, England, and after his school boy days entered the Indian Navy in 1844 as a midshipman. In 1849 he was appointed to command 100 seamen, to proceed to Mooltan to join the Naval Brigade, if he could pass the examination as acting master. He succeeded, and received the appointment, and was just about to start on the expedition when orders came down that no more seamen were to be sent up, as the siege had been raised. This unexpected change in the programme was a bitter disappointment to him, but was somewhat compensated for when, a short time afterwards, he was appointed first lieutenant of the schooner *Mahi*, three guns and forty men. At the qualifying examination for lieutenant he obtained the highest marks ever

given for navigation. In 1850 he retired and returned to England, where after a time he entered the army as cornet in the Royal Horse Guards Blue. On the breaking out of the Crimean War he volunteered for any light cavalry serving in the field, and was lucky enough to be appointed to the Eighth Hussars. While serving with this regiment he was present at the Battle of Tchernaya and at the siege and fall of Sebastopol, being afterwards honoured with medals and clasp.

After his return to England he was appointed to raise and command the Cambridge University corps, and was frequently selected to command brigade volunteers. In 1861 he organized a scheme for military education at the universities, on the basis that all officers entering the army should pass through them and have the advantage of the highest education and also be given instruction in military duties. The scheme was cordially adopted by all the universities of Great Britain, and they agreed to establish military scholarships and military fellowships as he had suggested. Amongst others who took great interest in the scheme was the late Prince Consort, who ordered Col. Baker to meet him at Windsor Castle to discuss the proposal. He also had to attend the Council of Military Instruction of that date to explain the method he proposed of organizing the new military education scheme. All this time the Duke of Cambridge was endeavouring to obtain a vote of the House of Commons for the enlargement of Sandhurst Military College, in order that every officer who entered the army might be obliged to pass at least a year in the institution before being appointed. The two rival projects were thus considered at the same time, with the Prince Consort supporting the one and the Duke of Cambridge the other. When the motion to provide for the enlargement of Sandhurst came up in the House of Commons and was brought to a vote it was defeated through the exertions of the Prince Consort and the university party, but Disraeli, at that time Prime Minister, was afterwards informed that the buildings at Sandhurst were partially completed, and, as the money had to be found, a re-vote was taken and the grant was made. Later on the Prince Consort was going to Cambridge, with a view, amongst other things, of furthering the scheme for military education, when he was unfortunately stricken with his fatal illness. Had the Prince lived, the project undoubtedly would have been carried to a successful issue, but, as it was, a compromise was effected subsequently which resulted in a university examination admitting to the army without further test.

While a student at Cambridge, Col. Baker took an exceptional interest in rifle practice, and won the Prince of Wales' Challenge Cup, the prize at the all-comers' meeting, and the first stage of the Albert Prize at Wimbledon in 1864, and in that match made the highest score. In 1875 he retired with the permanent rank of lieutenant-colonel in Her Majesty's army. On leaving the university the corps with which he was connected presented him with a handsome piece of plate. Col. Baker was entered as a Fellow Commoner at Magdalen College, Cambridge, and from there obtained a first-class degree, and was afterwards made a Master of Arts. After graduating he was appointed