

CYANIDE AS A FACTOR IN GOLD PRODUCTION

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In his presidential address before the chemical section of the British Association, G. T. Beilby said :

From the early beginnings of civilization gold has been highly prized and eagerly sought after. Human life has been freely sacrificed in its acquirement from natural sources, as well as in its forcible seizure from those who already possessed it. The 'Age of Gold' was not necessarily the 'Golden Age,' for the noble metal, in its unique and barbaric splendor, has symbolized much that has been unworthy in national and individual aims and ideals. With the advent of the industrial age gold was destined to take a new place in the world's history as the great medium of exchange, the great promotor of industry and commerce. While individual gain still remained the propelling power toward its discovery and acquisition, every fresh discovery led directly or indirectly to the freer interchange of the products of industry, and thus reacted favorably on the industrial and social conditions of the time. So long as the chief supplies of gold were obtained from alluvial deposits by the simple process of washing, the winning of gold almost necessarily continued to be pursued by individuals, or by small groups of workers, who were mainly attracted by the highly speculative nature of the occupation. These workers endured the greatest hardships and ran the most serious personal risks, drawn on from day to day by the hope that some special stroke of good fortune would be theirs. This condition prevailed also in fields in which the reef gold occurred near the surface, where it was easily accessible without costly mining appliances, and where the precious metal was loosely associated with a weathered matrix. These free-milling ores could be readily handled by crushing and amalgamation with mercury, so that here also no elaborate organization and no great expenditure of capital were necessary. A third stage was reached when the more easily-worked deposits above the water-line had been worked out. Not only were more costly appliances and more elaborately organized efforts required to bring the ore to the surface, but the ore, when obtained, contained