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Satchell, Jr.

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[54] **AMMONIA LEACHING**

[75] Inventor: **Donald P. Satchell, Jr.**, Clifton, Ariz.

[73] Assignee: **Phelps Dodge Corporation**, New York, N.Y.

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[52] **U.S. Cl.** **204/106**; 423/32; 423/356; 423/357; 75/103; 75/117; 204/108

[58] **Field of Search** 423/32, 33, 357, 356, 423/438; 204/106, 108; 75/103, 117

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Primary Examiner—Brian E. Hearn

Attorney, Agent, or Firm—Ronald A. Schapira

[57] **ABSTRACT**

An improved process for obtaining copper from a copper sulfide, in which: the copper sulfide is treated with oxygen and an aqueous leaching solution of ammonium carbonate, to form a leach liquor which contains ammonia complexes of copper sulfate and copper carbonate; the leach liquor is heated to form gaseous ammonia and carbon dioxide; the leach liquor is treated with a strongly alkaline material to precipitate sulfates and form additional gaseous ammonia; and the copper is then recovered by electrowinning. In this process, the ammonium carbonate leaching solution is formed from carbon dioxide that is generated by: adding a metal carbonate to the leach liquor during the heating thereof; and recovering the gaseous carbon dioxide, as well as the gaseous ammonia, formed during the heating of the leach liquor.

7 Claims, 1 Drawing Figure