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McCord et al.

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[54] **METHOD FOR REMOVING SULFUR DIOXIDE FROM GAS STREAMS**

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[75] Inventors: **Thomas H. McCord, Harvey; Jay C. Smith, Pearl River; Robin W. Strickland, New Orleans, all of La.**

Primary Examiner—Gregory A. Heller
Attorney, Agent, or Firm—Fisher, Christen & Sabol

[73] Assignee: **Freeport-McMoRan Inc., New Orleans, La.**

[57] **ABSTRACT**

[21] Appl. No.: **705,654**

A process and apparatus for removing SO₂ from low-volume gas streams containing high concentrations of SO₂ includes a tank scrubber containing an aqueous SO₂ absorbent and an impeller. The impeller includes a vertical rotating shaft having an upper and lower impeller. The lower impeller serves to agitate the SO₂ absorbent. The upper impeller includes a shroud thereby directing the absorbent and gas outwardly toward the wall of the scrubber. The gas is injected into the absorbent at a point below the shrouded impeller. The shroud prevents gas bypass and thereby promotes gas-liquid mixing and, consequently, markedly improves SO₂ removal efficiency.

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[51] Int. Cl.⁵ **C01B 17/00**

[52] U.S. Cl. **423/242**

[58] Field of Search **423/242 A, 242 R, 244 R**

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25 Claims, 1 Drawing Sheet

