# United States Patent [19]

**Williams et al.**

[11] **4,157,847**

[45] **Jun. 12, 1979**


[54] **METHOD AND APPARATUS FOR UTILIZING ACCUMULATED UNDERGROUND WATER IN THE MINING OF SUBTERRANEAN SULPHUR**


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[21] Appl. No.: **819,879**

[22] Filed: **Jul. 28, 1977**

[51] **Int. Cl.**[2] ..... **E21C 41/14;** E21B 43/28

[52] **U.S. Cl.** ..... **299/6;** 166/62

[58] **Field of Search** ..... 299/6, 4, 3; 166/272, 166/302, 303, 306, 252, 222



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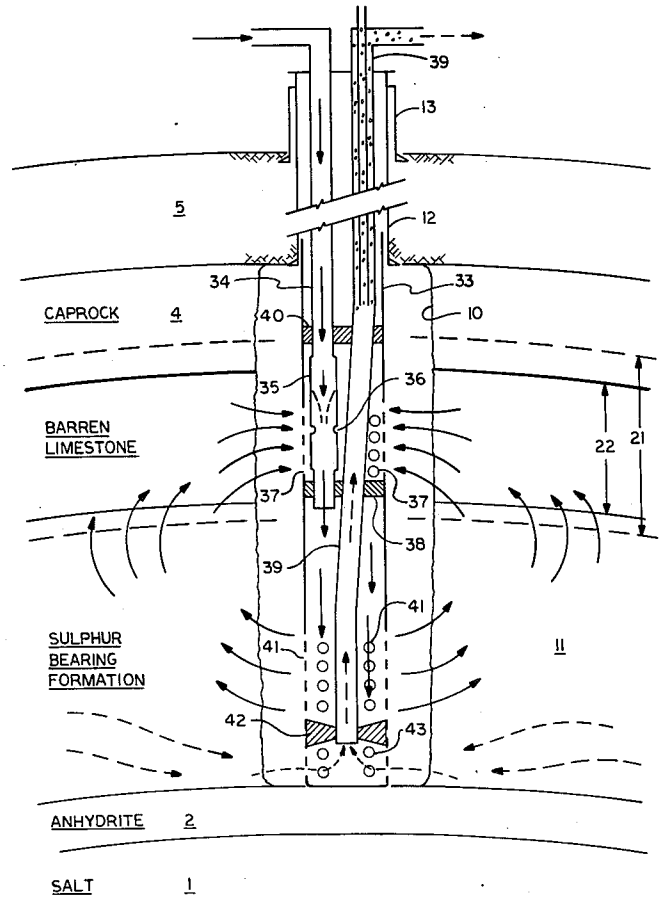
[57] **ABSTRACT**

Novel method and apparatus for utilizing, in the mining of subterranean sulphur by the Frasch process, the heat of water that has accumulated underground above at least a part of said subterranean sulphur from previous mining operations comprising subterraneanly recycling said accumulated underground water downwardly to contact and heat additional solid subterranean sulphur. In one embodiment further heat is added to the accumulated underground water. For example, pressurized, superheated drive water generated above ground is subterraneanly commingled with said accumulated underground water in a jet pump or ejector to further heat it and to recycle it subterraneanly.


**20 Claims, 5 Drawing Figures**