106-74 AU 115 EX
11/8/77 XR 4,056,937

United States Patent [19]

Suzuki

[11] **4,056,937**

[45] **Nov. 8, 1977**

[54] **METHOD OF CONSOLIDATING SOILS**

[75] Inventor: **Manao Suzuki**, Tokyo, Japan

[73] Assignee: **Kyokado Engineering Co. Ltd.**, Tokyo, Japan

[21] Appl. No.: **647,596**

[22] Filed: **Jan. 8, 1976**

[51] **Int. Cl.**[2] **E02D 3/14**

[52] **U.S. Cl.** ..... **61/36 B**; 106/74

[58] **Field of Search** ..... 61/36 C, 36 B; 166/292, 166/293; 106/74, 76, 84, 287 SS; 260/DIG. 14

[56] **References Cited**

U.S. PATENT DOCUMENTS

2,176,266	10/1939	Malmberg	61/36 B
3,111,006	11/1963	Caron	61/36 B
3,411,582	11/1968	Dale	61/36 B
3,435,899	4/1969	McLaughlin et al.	61/36 C
3,583,166	6/1971	Graf	61/36 B
3,845,632	11/1974	Slobod et al.	61/36 B
3,865,600	2/1975	Pearson et al.	106/84
3,908,388	9/1975	De Vries	106/74

FOREIGN PATENT DOCUMENTS

675,511	5/1966	Belgium	61/36 C

Primary Examiner—Paul R. Gilliam
Assistant Examiner—Alex Grosz

[57] **ABSTRACT**

In a method of consolidating soils by injecting a hardner thereinto, a mixture of an aqueous solution of water glass and acidic reactant is employed as the hardener, the aqueous solution being prepared to be within the range of from weak acidity to weak alkalinity in pH value, to prevent the occurrence of pollution such as soil pollution or subterranean water polutions.

14 Claims, No Drawings

Multiple grout process... at least Two liquids