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[54] **METHOD FOR DETERMINING THE VELOCITY OF A THREE-DIMENSIONAL FLUID FLOW OVER A SUBMERGED BODY**

[56] **References Cited**

U.S. PATENT DOCUMENTS

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[57] **ABSTRACT**

A method for determining the velocity of a three-dimensional fluid flow over a submerged body is provided. A plurality of finite volume cylindrical elements are used to represent the distribution of vorticity at the surface geometry of the body. The vorticity distribution is used to determine the velocity field of the flow according to the Biot-Savart integral which is solved for in a cylindrical coordinate system.

[21] Appl. No.: **07/777,045**

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[51] Int. Cl.⁵ **G06G 7/57; G06F 17/00**

[52] U.S. Cl. **364/578**

[58] Field of Search **364/510, 554, 364/564, 578**

3 Claims, 3 Drawing Sheets

