(12) **United States Patent**
     Wu

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(54) **FLUID MIXING DEVICE**

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CPC *C02F 1/50* (2013.01); *B01F 3/04099* (2013.01); *B01F 3/04503* (2013.01); *B01F 5/0428* (2013.01); *B01F 2003/04886* (2013.01); *C02F 1/78* (2013.01); *C02F 2201/005* (2013.01); *C02F 2201/784* (2013.01); *C02F 2303/02* (2013.01); *C02F 2307/06* (2013.01)

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See application file for complete search history.

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(57) **ABSTRACT**

A fluid mixing device includes a body, a water controlling valve assembly and a Venturi tube structure. The body is internally formed with inlet channels for communicating with water source, a first channel, an outlet channel communicating between the first channel and outside of the body, and a gassing channel communicating between the first channel and a gas source. The water controlling valve is operable between first and second positions. The Venturi tube structure is disposed within the first channel and includes a necked passage communicating with the first channel and a passing hole communicating between the necked passage and the gassing channel. When the water controlling valve is located in the first position, the water flows passes through the necked passage and draws gas from the gas source through the gassing hole to come into the necked passage to mix with each other.

10 Claims, 6 Drawing Sheets