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# United States Patent [19]

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**Cipolla**

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[54] **MEANS TO FIRE A FULLY AUTOMATIC GUN UNDERWATER USING A SPECIAL BARREL CLEARANCE BLANK ROUND**

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[21] Appl. No.: **664,320**

[57] **ABSTRACT**

[22] Filed: **May 23, 1996**

A method of firing an automatic weapon in an underwater environment is disclosed. The automatic weapon includes a barrel having a muzzle end and a chamber within the barrel. The method includes the steps of loading a blank round of ammunition into the chamber, first detonating the blank round of ammunition, creating gas and steam within the chamber as a result of detonating the blank round of ammunition, commingling expanded gas and steam to form a bubble at the muzzle end of the barrel, thereby displacing water from the chamber of the barrel and forming a dry environment throughout the chamber of the barrel, loading at least one live round of ammunition into the chamber, and detonating and firing the at least one live round of ammunition from within the dry environment prior to dissipation of the bubble.

[51] Int. Cl.<sup>6</sup> ..... **F41F 3/07; F41C 9/06**

[52] U.S. Cl. .... **89/1.11; 89/1.1; 42/1.14**

[58] Field of Search ..... **89/1.11, 1.1; 42/1.14**

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**8 Claims, 2 Drawing Sheets**

