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**Malone et al.**

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(54) **PERFORATION ALIGNMENT TOOL FOR JET DRILLING, PERFORATING AND CLEANING**

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(58) **Field of Classification Search** ..... None  
See application file for complete search history.

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(57) **ABSTRACT**

Method and apparatus are provided for pumping operations that may be used to form perforations in the casing of a well, clean perforations and drill drain holes through perforations. A plunger is placed in a reference perforation and the pumping operations may be performed through a nozzle at a known location with respect to the reference perforation. The nozzle may be attached to a flexible hose to drill a drain hole or may be inserted in a body on the bottom of a tubing string. Addition apparatus and method are provided to insure that the plunger or plungers are maintained in a reference perforation or perforations when pumping operations are carried out through tubing.

**27 Claims, 8 Drawing Sheets**

