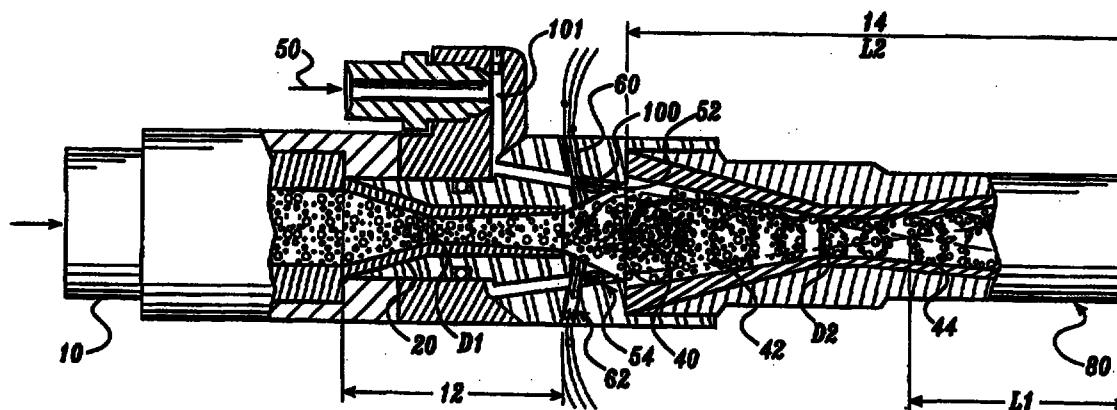




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(54) Title: **METHOD AND APPARATUS FOR PRODUCING A HIGH-VELOCITY PARTICLE STREAM**

(57) Abstract

A method and apparatus for producing a high-velocity particle stream at low cost through multi-staged acceleration using different media in each stage, the particles are accelerated to a subsonic velocity (with respect to the velocity of sound in air) using one or more jets of gas at low cost, then further accelerated to a higher velocity using jets of water. Additionally, to enhance particle acceleration, a vortex motion is created, and the particles introduced into the fluid having vortex motion, thereby enhancing the delivery of particles to the target.