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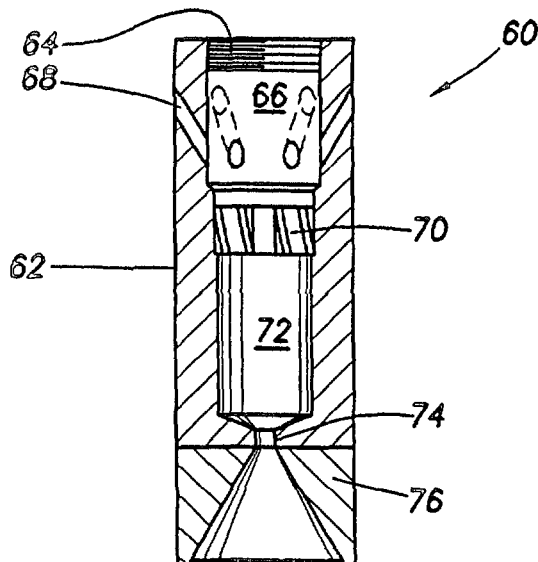
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Declarations under Rule 4.17:

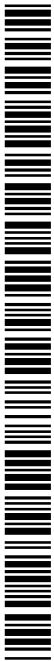
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(54) Title: NOZZLE FOR JET DRILLING



(57) Abstract: A jet nozzle is provided for drilling holes through the earth, such as drainholes around a well. The nozzle may include orifices for discharging fluid to drive the nozzle forward and includes a disk or other device having orifices to produce a swirling motion to fluid in the body of the nozzle. Swirling fluid is discharged from a front orifice and an extension is placed forward of the front orifice to confine the swirling fluid in a radial direction.



WO 03/087522 A2