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(54) **ROTARY JET BIT FOR JET DRILLING AND CLEANING**

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(57) **ABSTRACT**

(73) Assignee: **Buckman Jet Drilling, Inc.**, Bowling Green, KY (US)

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A jet bit ensures precise drilling of holes through the earth's surface, such as drainholes around a well. The jet bit has front rotating orifices and jets to drill a hole in a medium larger than the diameter of the bit. The orifices directed to the rear provide thrust to propel the bit forward by enlarging the drain-hole. A stationary shroud extends beyond the front orifices to maintain the front jets rotation. The jet bit may include turbine to control rotation rate and torque on front jets containing rotating shafts. A jet bit can be small enough to turn in a radius of four (4) inches from a vertical wellbore to create a horizontal drainhole. Various mechanical cutters can be mounted on the front of the jet bit to enable cutting with both jets and mechanical cutters.

