

Abstract

ELECTRIC DRILL APPARATUS

An electric drill apparatus having a low profile is provided which comprises an annular cutter, a motor for rotating the annular cutter, an arbor for rotating the annular cutter attached to its leading end about a rotating, an speed reduction mechanism disposed between the motor and arbor for transmitting a driving force of the motor to the annular cutter through the arbor, a feed mechanism responsive to an operation of a manual handle, for moving the arbor along with a straight line to advance or retract the annular cutter attached to the arbor with respect to a workpiece, and an adhesion base for securing the electric drill apparatus to the workpiece. The annular cutter has a plurality of cutting teeth comprised of cemented carbide tips fixed to its lower end, thereby it is capable of rotating at a high speed. The arbor has a rotating shaft which rotates in a direction different from that of a rotating shaft of the motor, thereby the drill apparatus has a low profile.

Figure 4



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