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Higashiwaki et al.

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(54) **DRILL BIT**

(56) **References Cited**

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(57) **ABSTRACT**

Provided is a step-shaped drill bit including at least two stepped cutting edges that are axially provided. A cutting edge of a first step from a tip is formed so as to satisfy at least one of the following conditions. That is, a number of blades is smaller, a point angle of the cutting edge is larger, or a clearance angle of the cutting edge is larger than that of cutting edges of a second and subsequent step(s). As a result, a thrust resistance during a perforation can be reduced compared with a case in which the first step cutting edge is formed such that the number of blades, the point angle of the cutting edge and the clearance angle of the cutting edge are the same as those of the second and subsequent step(s).

(58) **Field of Classification Search**

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See application file for complete search history.

20 Claims, 12 Drawing Sheets

