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Hoffmaster et al.

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[54] **DIRECTIONAL DRILL BIT**

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[57] **ABSTRACT**

[21] Appl. No.: **771,000**

A roller cone or drag-type drill bit for use in drilling subsurface formations, especially useful for directional drilling, has a bit body with a shank portion for connection to a drill string, and a crown portion. Breaker slots are formed in the bit body at or immediately adjacent to the intersection of the crown portion and the shank portion. This location of the breaker slots allows the drill bit to be relatively shorter than comparable prior art bits with the breaker slots formed in the shank portion. The shorter length permits the present drill bit to be more easily steered in directional drilling applications.

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[51] Int. Cl.⁶ **E21B 10/00; B21K 5/04**

[52] U.S. Cl. **175/375; 175/327; 175/331; 175/435; 76/108.4**

[58] Field of Search **76/108.4; 175/320, 175/327, 331, 375, 435**

[56] **References Cited**

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19 Claims, 2 Drawing Sheets

