

Title (en)
Nozzle means for rotary drill bits.

Title (de)
Düse für Drehbohrmeissel.

Title (fr)
Duse pour tréfans de forage rotatifs.

Publication
EP 0452584 B1 19940629 (EN)

Application
EP 90308487 A 19900801

Priority
US 50204690 A 19900330

Abstract (en)
[origin: EP0452584A1] A rotary drill bit (10) has fluid discharge nozzles (36A, 36B, 36C) positioned between adjacent pairs of roller cutters (20A, 20B, 20C). A fluid discharge nozzle (36A) provides a stream of drilling fluid (44) toward an adjacent roller cutter (20A) inclined radially outwardly toward the side wall (34) of the bore hole (30) and slanted toward the roller cutter (20A) for first striking the side wall (34), and then sweeping inwardly across the bore hole bottom (32) in a flat high velocity stream tangential to bit rotation and beneath the cutting elements (26) during cutting engagement of the gage row (28D) with the formation. <IMAGE>

IPC 1-7
E21B 10/18

IPC 8 full level
E21B 10/18 (2006.01)

CPC (source: EP)
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Citation (examination)
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Cited by
GB2315509A; GB2315509B; US6142247A; US9033066B2; US6290006B1; WO0019055A1

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