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(54) Title: GROUTING METHOD AND APPARATUS

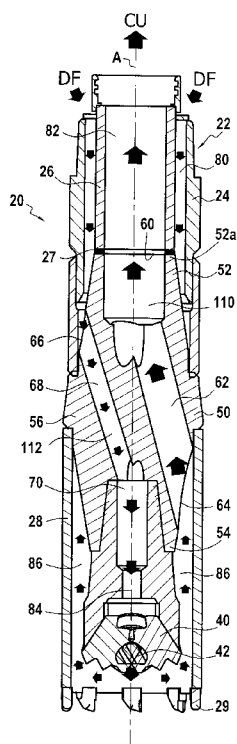


FIG.1

(57) Abstract: A drilling and grouting device (20) comprises a drill string (22) including a hol-
low elongate outer rod (24) having a central axis and a hollow elongate inner rod (26) located
coaxially within said outer rod (24), wherein a first outer flow path (80) is defined between said
inner (26) and said outer rod (24), and a first central flow path (82) is defined inside said inner
rod (26), a drill bit (40) aligned with said inner rod (26) along said central axis and including a
second central flow path (84), and a crossover part (50) interposed between said inner rod (26)
and said drill bit (40) along said central axis, said crossover part (50) being configured to connect
the first central flow path (82) with a second outer flow path (86) surrounding the drill bit (40) to
form a main path and to connect said first outer flow path (80) with said second central flow path
(84) to form a secondary path. The present invention further concerns a drilling and grouting ma-
chine comprising said device and a drilling and grouting method using such machine.



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