



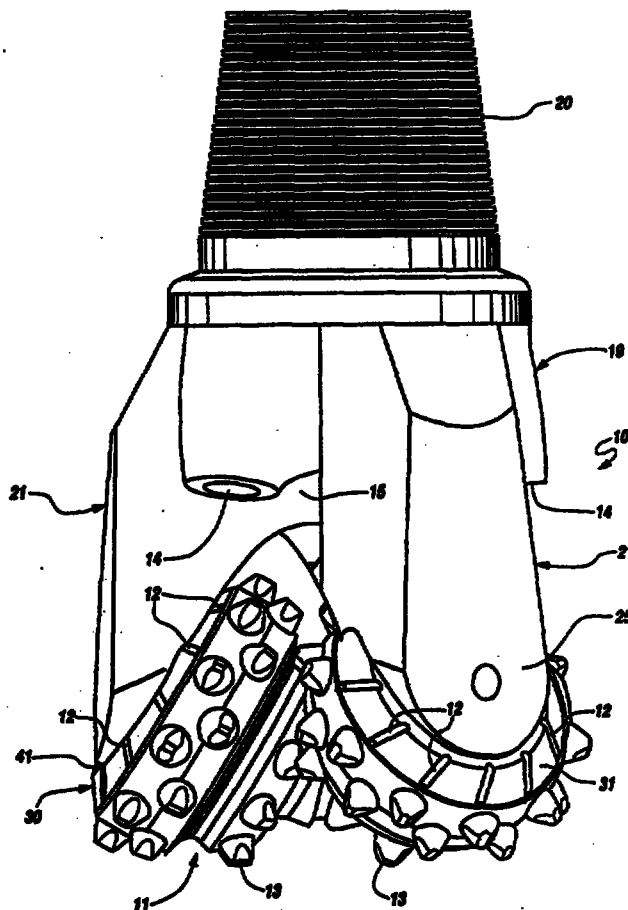
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(54) Title: ROTARY DRILL BIT WITH IMPROVED CUTTER

(57) Abstract

A rotary cone drill bit (10) having a number of angularly-spaced arms (21) integrally formed with a body (19), each arm (21) having a spindle (23) and an outer shirrtail surface (25). Each spindle (23) has a generally cylindrical upper end portion and an inner sealing surface. A number of rotary cone cutters (11) equal to the number of arms (21) are mounted on respective spindles (23). Each cutter includes an internal cylindrical wall, a gap (41) with a generally cylindrical portion defined between the spindle (23) and cavity wall, an outer sealing surface and a seal element (43) spanning the gap (41) and sealing between the inner and outer sealing surfaces. The cutters (11) are preferably composites formed from different types of material.



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