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- (54) Title: IDENTIFICATION EMITTERS FOR DETERMINING MILL LIFE OF A DOWNHOLE TOOL AND METHODS OF USING SAME

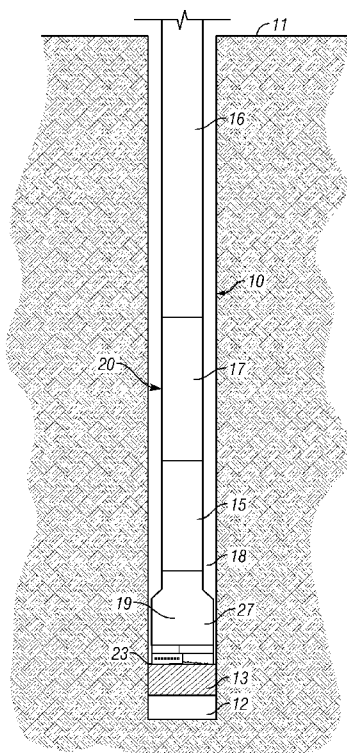


FIG. 1

(57) Abstract: Downhole abrading tools have one or more identification tags disposed in or on the cutting end of the tools, and a housing having a detector and a relay module. The identification tags emit one or more signals that are detected by the detector which is disposed in close proximity to the cutting end. The relay module is operatively associated with the detector. During operation of the tool, the cutting end is worn causing release or destruction of one or more identification tags. The release or destruction of one or more identification tags causes a change in the signal or signals being detected by the detector. The signal change(s) is/are communicated through the relay module to the operator so that the operator can identify in real-time the amount of wear of the cutting end and, in some embodiments, the location of the wear of the cutting end.

**Declarations under Rule 4.17:**

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- *as to the applicant's entitlement to claim the priority of the earlier application (Rule 4.17(iii))*

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