

## Title (en)

Ground rods and method and apparatus for forming and placing such rods.

## Title (de)

Erdungstäbe und Verfahren und Vorrichtung zum Formen und Einbringen dieser Stäbe.

## Title (fr)

Piquets de terre et méthode et dispositif pour former et placer ces piquets.

## Publication

**EP 0266206 A1 19880504 (EN)**

## Application

**EP 87309582 A 19871029**

## Priority

- US 10779887 A 19871019
- US 92522586 A 19861031

## Abstract (en)

A method and apparatus for driving one piece ground rods into the earth includes a coiled supply (34) of such rod which is fed from such coiled supply downwardly through a driver (10) which includes two sets of straightener rolls (81, 81), and into a vertically movable gripping jaw (87). The jaw is mounted on a slide (131,143) movable axially of the rod. The jaw and the slide are hydraulically operated (100, 92, 93). When the jaw is closed, the slide is driven downwardly to move the ground rod through a bottom guide (97) into the earth. At the end of the stroke of the slide, the jaw is opened and the slide retracted. When the jaw is again closed the slide is again extended driving the rod into the earth. The action of the slide incrementally draws the rod from the coiled supply, through the straightening rolls and drives it into the earth to the desired depth. If the driving resistance increases above a certain level, a vibration system providing high frequency impacts automatically comes into operation. The vibration system may be applied mechanically or hydraulically. In some embodiments the hydraulic driving cylinder is mounted for limited movement which brings into play the vibration system. In other embodiments the vibration system may be actuated in response to pressure in the hydraulic system. The mechanical vibration system utilizes a rotary stepped ring (151), while the hydraulic system may use an auxiliary pulse creating pump, or rotary or shuttle valves in the system. At such desired depth the rod is cut off and a suitable connection made. The coiled supply and the driver may be mounted on a vehicle with the driver hinged at the back of the vehicle for quick positioning and set up to the desired position and location.

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## Citation (search report)

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- [X] US 3709464 A 19730109 - JOHNSON C, et al
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