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Floyd et al.

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(54) **ADJUSTABLE UNDERGROUND METER
INSTALLATION**

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(58) **Field of Classification Search**
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See application file for complete search history.

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(56) **References Cited**

(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 0 days.

U.S. PATENT DOCUMENTS

219,098 A 9/1879 Jewell
420,044 A 1/1890 Dennis
469,005 A 2/1892 Anderson

(Continued)

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FOREIGN PATENT DOCUMENTS

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(Continued)

Related U.S. Application Data

OTHER PUBLICATIONS

(62) Division of application No. 12/564,459, filed on Sep. 22, 2009, now Pat. No. 9,032,989.

Floyd, Scott P.; Issue Notification for U.S. Appl. No. 13/460,956, filed May 1, 2012, mailed Jan. 6, 2016, 1 pg.

(Continued)

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(57) **ABSTRACT**

A pit liner includes an upper section, a lower section, at least one pin wherein each pin is connected to one of the upper section and the lower section, and at least one notch defined in at least one of the upper section and the lower section and the upper section sized to adjust with respect to each other.

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20 Claims, 4 Drawing Sheets

