Abstract: An excavator bucket adapted to receive subsoiler shanks and an optional coulter blade enables multiple treatment of compacted soil. In a preferred embodiment, the shanks depend downward below the bucket and curve forward toward the bottom of the bucket. The shanks allow a single implement to be used for both excavating and subsoiling, and also for contouring sloping terrain. One application for such an implement is for decommissioning forest roads without the need for multiple pieces of heavy equipment or for multiple entries into the treatment area.
Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG). For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

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INTERNATIONAL SEARCH REPORT

A. CLASSIFICATION OF SUBJECT MATTER
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B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
U.S. : 037/403-410, 468

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)
EAST Text Search

C. DOCUMENTS CONSIDERED TO BE RELEVANT

<table>
<thead>
<tr>
<th>Category</th>
<th>Citation of document, with indication, where appropriate, of the relevant passages</th>
<th>Relevant to claim No.</th>
</tr>
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<tr>
<td>X</td>
<td>US 4,041,624 A (FRYREAR) 16 August 1977 (16.08.1977), Figs. 2-4.</td>
<td>1, 2, 3-8</td>
</tr>
<tr>
<td>Y</td>
<td>US 3,724,899 A (CLARK) 03 April 1973 (03.04.1973), Fig. 2.</td>
<td>3, 4, 9</td>
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</tbody>
</table>

Further documents are listed in the continuation of Box C.

See patent family annex.

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