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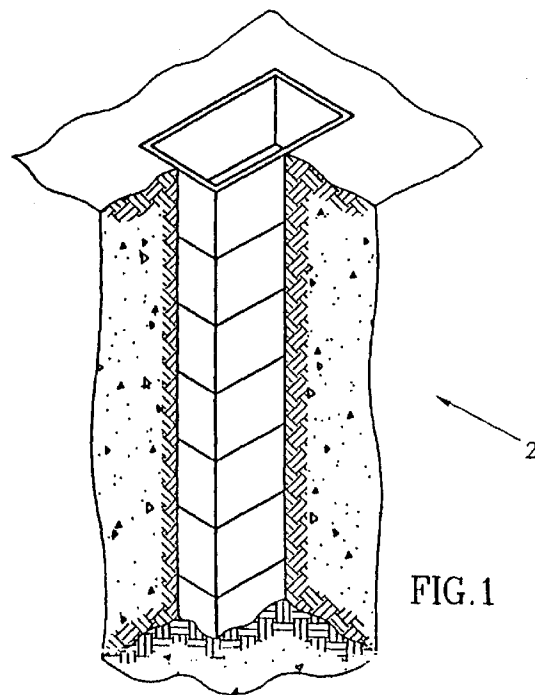
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### (54) Construction of holes and tunnels having support walls

(57) A method for constructing an underground construction comprising a hole or tunnel having support walls, the method comprising the steps of excavating an initial hole or tunnel segment, forming at least a portion of the initial segments so that its walls assume a final shape and size corresponding to the external shape and size of the support walls, inserting at least a leading support wall element into a the segment, excavating a further hole segment, forming the further hole segment so that its walls assume a final shape and size corresponding to the external shape and size of the support walls, allowing the at least first support wall element to translocate into the further segment and introducing one or more trailing support wall elements into the initial segment, repeating necessary steps until constructing the entire hole.



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## EUROPEAN SEARCH REPORT

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| DOCUMENTS CONSIDERED TO BE RELEVANT  |  |                                  |   |
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| Category   | Citation of document with indication, where appropriate, of relevant passages                                  | Relevant to claim                | CLASSIFICATION OF THE APPLICATION (Int.Cl.6)    |
| X  | DE 23 52 252 A (RUHRKOHLE)<br>* claim; figure *<br>---   | 1,3,4,<br>18,19                  | E21D1/08<br>E21D5/00<br>E02D17/00<br>E02D29/045 |
| X  | DE 31 25 274 A (PHILIPP HOLZMANN)<br>* page 11, last paragraph - page 12,<br>paragraph 1; figures 4-7 *<br>--- | 1,8                              |   |
| X  | US 4 227 583 A (WIRTH MASCH.- BOHRGERÄTE)<br>* column 3, line 47 - column 4, line 15 *<br>---                  | 1-3,9,19                         |   |
| Y  | * figures 1,7 *<br>---   | 5-7,<br>10-17                    |   |
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| The present search report has been drawn up for all claims   |  |                                  |   |
| Place of search  |  | Date of completion of the search | Examiner  |
| THE HAGUE  |  | 29 September 1997                | Leitner, J                                      |
| CATEGORY OF CITED DOCUMENTS  |  |                                  |   |
| <p>X : particularly relevant if taken alone<br/> Y : particularly relevant if combined with another document of the same category<br/> A : technological background<br/> O : non-written disclosure<br/> P : intermediate document</p> <p>T : theory or principle underlying the invention<br/> E : earlier patent document, but published on, or after the filing date<br/> D : document cited in the application<br/> L : document cited for other reasons<br/> &amp; : member of the same patent family, corresponding document</p> |  |                                  |   |

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