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# **EUROPEAN PATENT APPLICATION**

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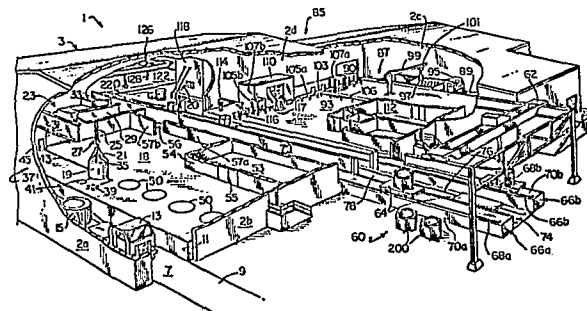
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## ⑤④ **Nuclear waste packaging modules.**

⑤⑦ A ground-disposable module for encapsulating radioactive waste contained within shipping containers is disclosed herein. Generally, the modules comprise a rigid outer container for providing a first radiation and water barrier for the waste, an inner container formed from the shipping container for providing a second radiation and water barrier, and a central layer of group which forms still another radiation and water barrier and which provides the rigid outer container with a substantially solid interior which reinforces the compressive strength of the module. The rigid outer container may hold a plurality of shipping containers which have been compacted. Such compaction maximizes the number of containers which may be encapsulated into a particular module, and increases the overall compressive strength of the module by increasing the integrity and strength of the shipping containers and wastes grouted therein. In order to facilitate handling, the outer containers of the modules includes a pattern of grooves at its bottom portion for receiving the forks of a forklift, and a plurality of I-bolt anchors at its top portion which are detachably connectable to the hooks of a hoist. The outer containers of the modules are preferably hexagonally shaped, right-angled prisms. The hexagonal prism shape of the outer container of the module allows the modules to form subsidence-free, solid arrays which have sufficient com-

pressive strength to support an earthen-type trench cover, yet are flexibly conformable to changes in the shape of the trench which might occur from a seismic disturbance.





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# EUROPEAN SEARCH REPORT

0168219

Application Number

EP 85 30 4788

| DOCUMENTS CONSIDERED TO BE RELEVANT  |   |  |   |
|--|---|--|---|
| Category   | Citation of document with indication, where appropriate, of relevant passages | Relevant to claim                              | CLASSIFICATION OF THE APPLICATION (Int. Cl.4) |
| A  | DE-A-3 129 852 (GNS mBH)<br>* Claims 1,6; figure 5 *<br>---                   | 1-4,7-9  | G 21 F 9/36                                   |
| A  | US-A-4 415 459 (COFFMAN)<br>* Claims 1,17,18,32,36,39 *<br>---                | 1,21,23  |   |
| A  | DE-A-3 038 592 (KRAFTWERK UNION AG)<br>* Claims 1-3; figures 3,4 *<br>---     | 1,2,10,<br>13,15,<br>16                        |   |
| A  | US-A-4 177 386 (WACHTER)<br>-----   |  |   |
|  |   |  | TECHNICAL FIELDS SEARCHED (Int. Cl.4)         |
|  |   |  | G 21 F<br>G 21 C                              |
| The present search report has been drawn up for all claims   |   |  |   |
| Place of search<br>THE HAGUE   |   | Date of completion of the search<br>01-12-1988 | Examiner<br>NICOLAS H.J.F.                    |
| <b>CATEGORY OF CITED DOCUMENTS</b><br>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<br>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>-----<br>& : member of the same patent family, corresponding document |   |  |   |