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**EUROPEAN PATENT APPLICATION**

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⑤① Int. Cl.<sup>3</sup>: **F 23 G 7/00, F 23 G 5/00**

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⑧④ Designated Contracting States: **AT BE CH DE FR GB IT**  
**LI NL SE**

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⑧⑧ Date of deferred publication of search  
report: **15.08.84 Bulletin 84/33**

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⑧④ Designated Contracting States: **BE CH DE FR IT LI NL**  
**SE AT**

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⑧④ Designated Contracting States: **GB**

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⑤④ **Method for processing of by-products of the refining of oils and fats.**

⑤⑦ To avoid environmental objections in discarding by-products of refining and processing of fatty oils, fats or mineral oils, or other materials, especially those containing alkali metal ions or salts, such by-products are combusted with excess air or oxygen, preferably in a fluidized bed oven, using a bed material having a low silicon content, particularly those consisting mainly of titanium, calcium and/or aluminium oxides, at 600–950 °C, preferably 800–850 °C. The organic materials in the by-products are thereby converted into products which can be discharged without problems; the exhaust gases contain only low amounts of carbon monoxide and nitrogen oxides. By passing the combustion gases through a heat-exchanger, the heat generated can be used, e.g. to preheat the excess air for the process or to generate steam or heated water, which can be used economically in other parts of the plant. The process is particularly suitable for the combustion of soap-stock, the water content of which has been reduced, e.g. by evaporation, if necessary.



| 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. 3) |
| X                                                                                                                                                                                                                       | FR-A-2 268 758 (DORR-OLIVER)<br>* Page 1, lines 1-7; page 2, lines 4-15; page 3, line 16 - page 4, line 13; page 5, line 27 - page 6, line 9 * | 1,7,11                                                                                                                                                                                                                                                                       | F 23 G 7/00<br>F 23 G 5/00                     |
| Y                                                                                                                                                                                                                       |                                                                                                                                                | 2-6,8-10,15,16                                                                                                                                                                                                                                                               |                                                |
| Y                                                                                                                                                                                                                       | DE-C- 551 449 (MALLERY)<br>* Page 1, lines 1-31, 41-44; page 2, lines 43-49, 90-101 *                                                          | 2-4,9,10                                                                                                                                                                                                                                                                     |                                                |
| Y                                                                                                                                                                                                                       | FR-A-2 138 173 (HERCULES)<br>* Page 1, lines 1-3; page 3, lines 38-40; page 5, lines 4-11 *                                                    | 5,6,8                                                                                                                                                                                                                                                                        |                                                |
| A                                                                                                                                                                                                                       | EP-A-0 003 831 (BAYER)<br>* Page 1, lines 1-7; page 3, lines 5-12; page 5, lines 10-22 *                                                       | 12                                                                                                                                                                                                                                                                           |                                                |
| A                                                                                                                                                                                                                       | FR-A-2 056 634 (COMBUSTION POWER COMPANY)<br>* Page 8, lines 19-22; page 8, line 39 - page 9, line 2; page 15, lines 31-33 *                   | 12                                                                                                                                                                                                                                                                           |                                                |
|                                                                                                                                                                                                                         |                                                                                                                                                |                                                                                                                                                                                                                                                                              | TECHNICAL FIELDS SEARCHED (Int. Cl. 3)         |
|                                                                                                                                                                                                                         |                                                                                                                                                |                                                                                                                                                                                                                                                                              | F 23 G                                         |
| The present search report has been drawn up for all claims                                                                                                                                                              |                                                                                                                                                |                                                                                                                                                                                                                                                                              |                                                |
| Place of search<br>THE HAGUE                                                                                                                                                                                            |                                                                                                                                                | Date of completion of the search<br>29-03-1984                                                                                                                                                                                                                               | Examiner<br>COMEL E.                           |
| CATEGORY OF CITED DOCUMENTS                                                                                                                                                                                             |                                                                                                                                                |                                                                                                                                                                                                                                                                              |                                                |
| 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 |                                                                                                                                                | 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>& : member of the same patent family, corresponding document |                                                |



| 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. 3) |
| A                                                                                                                                                                                                                       | CH-A- 473 359 (ESSO)<br><br>* Column 1, lines 1-17; column 4, lines 40-51; column 5, lines 28-36 *                                                                | 1-6, 12<br>-14                                                                                                                                                                                                                                                                        |                                                |
| A                                                                                                                                                                                                                       | ---<br>US-A-4 071 612 (WEYER et al.)                                                                                                                              |                                                                                                                                                                                                                                                                                       |                                                |
| A                                                                                                                                                                                                                       | ---<br>HÜTTE TASCHENBUCH FÜR<br>EISENHÜTTENLEUTE, 5th edition,<br>1961, page 545, Verlag von<br>Wilhelm Ernst & Sohn, Berlin,<br>DE.<br>* Page 545, paragraph 2 * |                                                                                                                                                                                                                                                                                       |                                                |
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| The present search report has been drawn up for all claims                                                                                                                                                              |                                                                                                                                                                   |                                                                                                                                                                                                                                                                                       | TECHNICAL FIELDS<br>SEARCHED (Int. Cl. 3)      |
| Place of search<br>THE HAGUE                                                                                                                                                                                            |                                                                                                                                                                   | Date of completion of the search<br>29-03-1984                                                                                                                                                                                                                                        | Examiner<br>COMEL E.                           |
| <b>CATEGORY OF CITED DOCUMENTS</b>                                                                                                                                                                                      |                                                                                                                                                                   |                                                                                                                                                                                                                                                                                       |                                                |
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