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(54) Treating apparatus having multifunction.

(57) A treating apparatus having multifunction comprising a vessel (1) having inverted frustoconical configuration with a vertical central axis; a stirring assembly (11) with spiral blade disposed in the vessel adjacent to an internal peripheral surface thereof; and a driving and supporting assembly which rotates the stirring assembly around its own axis and revolves the stirring assembly around the central axis wherein a filter medium comprising porous material is disposed at the bottom of the vessel.

According to an apparatus of the present invention, there can be remarkably improved purification process comprising an operation of drying powdery or granular substance, an operation of washing, an operation of drying, and the like.

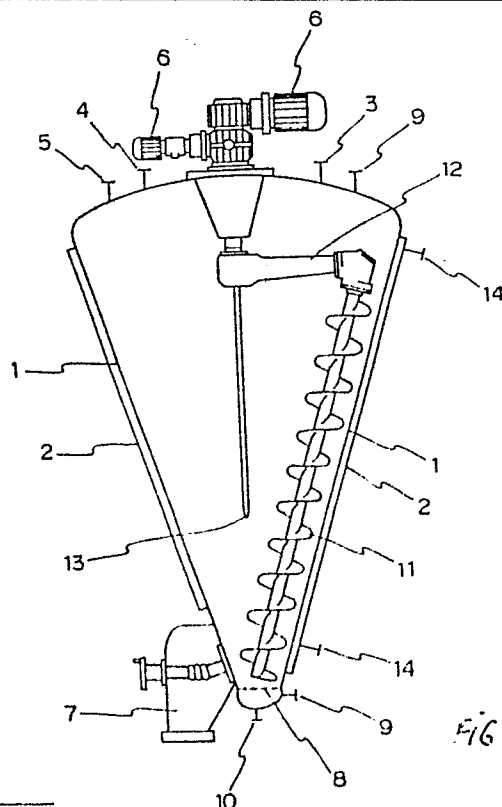


FIG. 1.



| 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) |
| Y                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | DE-A-2 425 727 (NAUTAMIX)<br>* Page 7, claim 1; figures *                                | 1,2                                            | B 01 F 7/30                                    |
| Y                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | DE-A-1 932 094 (KRANZ)<br>* Page 11, last paragraph; page 12, first paragraph; figures * | 1,2                                            |                                                |
| A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | US-A-3 024 500 (LAWSON)<br>* Column 2, lines 2-8; figures *                              | 4                                              |                                                |
| A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | DE-A-1 801 546 (WAESCHLE)<br>* Page 2, last paragraph; figures *                         | 3                                              |                                                |
| A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | DE-A-2 320 280 (TORON)                                                                   |                                                | TECHNICAL FIELDS<br>SEARCHED (Int. Cl. 4)      |
| A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | DE-B-1 027 966 (PETERS)                                                                  |                                                | B 01 F<br>F 26 B                               |
| A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | GB-A- 943 085 (MAX LEVA)                                                                 |                                                |                                                |
| The present search report has been drawn up for all claims                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                          |                                                |                                                |
| Place of search<br>THE HAGUE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                          | Date of completion of the search<br>05-06-1987 | Examiner<br>PEETERS S.                         |
| <p><b>CATEGORY OF CITED DOCUMENTS</b></p> <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> |                                                                                          |                                                |                                                |