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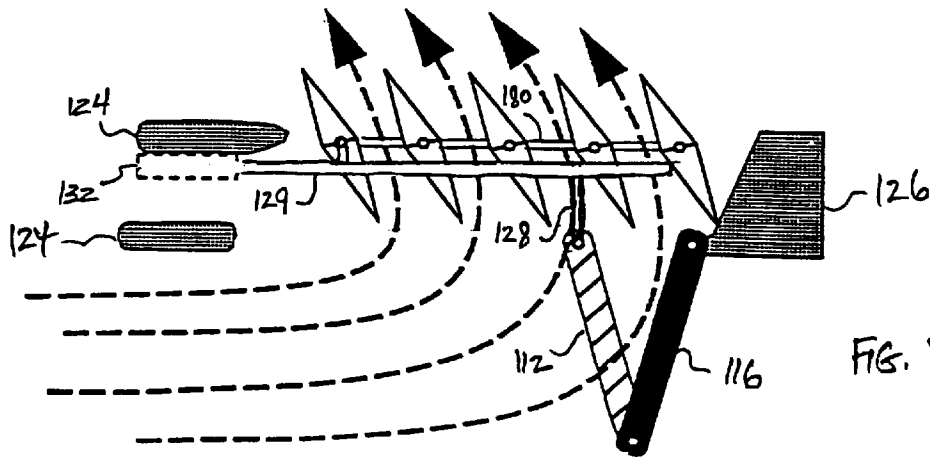
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(54) **Multiaxis thrust-vectoring for turbo-fan engines**

(57) The present invention is a thrust reversing apparatus for diverting purely rearwardly directed air flowing through an engine nacelle to combined rearward-and-radially-outward flow, and then to a combination of various radially outward angles and forward flow, where in the latter states thrust reversal is effected. The apparatus includes parallel inner and outer air flow blocking members driven by actuators which are coupled to the blocking members for effecting synchronous movement. The inner member includes a first door having fixed vanes and a solid second door pivotably cou-

pled to the first door. The inner member has a closed position in which the two doors are collinear, and various open positions in which the two doors are pivoted relative to one another. The outer member comprises an array of pivotable, parallel vanes, and has a closed position in which the vanes tightly overlap, and various open positions in which the vanes are pivoted out of contact with each other through various amounts of rotation.



EP 0 809 011 A3



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Application Number
EP 97 10 8028

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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		16 August 1999	Argentini, A
CATEGORY OF CITED DOCUMENTS		T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons ----- & : member of the same patent family, corresponding document	
X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document			

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**ANNEX TO THE EUROPEAN SEARCH REPORT
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