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(54) Title: GEARED TURBOFAN WITH THREE TURBINES WITH HIGH SPEED FAN DRIVE TURBINE

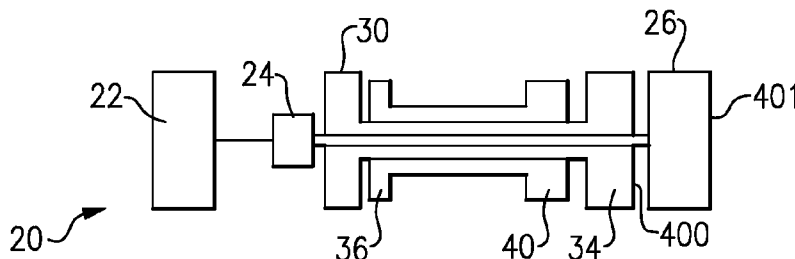


FIG. 2

(57) Abstract: gas turbine engine has a fan rotor, a first compressor rotor and a second compressor rotor and three turbine sections. A fan drive drives the fan through a gear reduction. The fan drive turbine section has a first exit area at a first exit point and is configured to rotate at a first speed. A second turbine section has a second exit area at a second exit point and is configured to rotate at a second speed that is faster than the first speed. A first performance quantity is defined as the product of the first speed squared and the first area. A second performance quantity is defined as the product of the second speed squared and the second area. A ratio of the first performance quantity to the second performance quantity is between about 0.5 and about 1.5.

INTERNATIONAL SEARCH REPORT

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A. CLASSIFICATION OF SUBJECT MATTER IPC(8) - F02C 3/10 (2014.01) USPC - 60/792 According to International Patent Classification (IPC) or to both national classification and IPC		
B. FIELDS SEARCHED Minimum documentation searched (classification system followed by classification symbols) IPC(8): F02C 3/04, 3/06, 3/10; F02K 3/02, 3/06; F04D 3/00; F16h 37/06, 08 (2014.01) USPC: 60/226.1, 772, 792; 74/640, 415/79; 415/122.1, 211.2, 220 Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched Electronic data base consulted during the international search (name of data base and, where practicable, search terms used) MicroPatent (US-G, US-A, EP-A, EP-B, WO, JP-bib, DE-C,B, DE-A, DE-T, DE-U, GB-A, FR-A); Google; Google Scholar; ProQuest Keywords: turbine, fan, three, gear, ratio, exit, exit area, .5, 1.5, co-rotate, spool, direction, rotate, same, fan drive, fan driving, downstream		
C. DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 3,729,957 A (PETRIE, J et al.) 01 May 1973; figures 1, 2; column 2, lines 1-23, 45-55, 60-67	1-20
A	US 2012/0121390 A1 (SUCIU, G et al.) 17 May 2012; figure 1A; paragraphs [0038], [0041]	1-20
A	US 2010/0139243 A1 (MIGLIARO JR., EF) 10 June 2010; entire document	1-20
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