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- (71) Applicant: UNITED TECHNOLOGIES CORPORATION [US/US]; One Financial Plaza, Hartford, Connecticut 06101 (US).
- (72) Inventors: MCCUNE, Michael E.; 43 Hunters Court, Colchester, Connecticut 06415 (US). SCHWARZ, Frederick M.; 121 Steep Hollow Drive, Glastonbury, Connecticut 06033 (US).
- (74) Agent: OLDS, Theodore W.; Carlson, Gaskey & Olds/Pratt & Whitney, c/o CPA Global, P.O. Box 52050, Minneapolis, Minnesota 55402 (US).

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(54) Title: GEARED TURBOFAN GAS TURBINE ENGINE WITH RELIABILITY CHECK ON GEAR CONNECTION

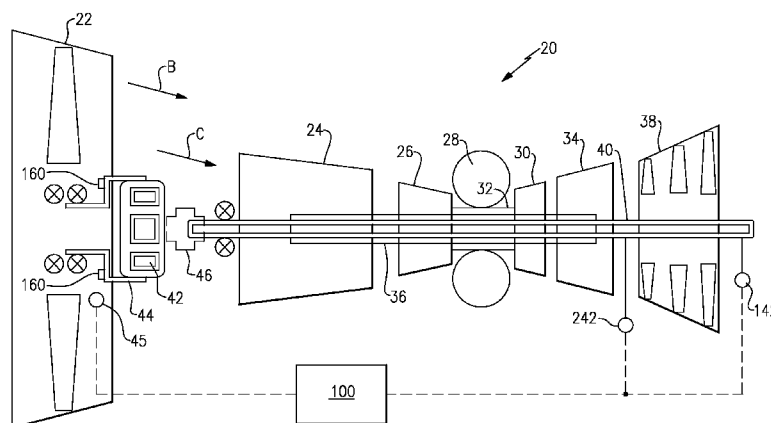


FIG.1

(57) Abstract: A gas turbine engine includes a fan and a compressor. A combustor drives a turbine, including a first turbine with a shaft to drive the compressor. A fan drive turbine drives the fan through a speed reduction. A sensor senses a speed of rotation of the fan and communicates sensed speed information to a control. The control develops an expected speed for the fan. A problem is identified should the sensed speed be less than the expected speed by more than a predetermined amount. A method is also described.