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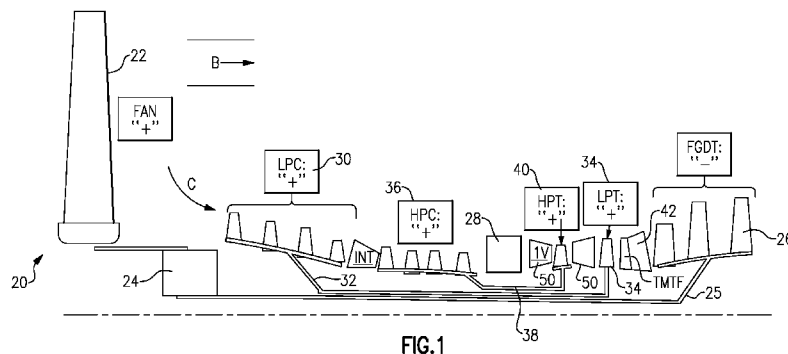
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(54) Title: GEARED TURBOFAN WITH THREE TURBINES WITH FIRST TWO CO-ROTATING AND THIRD ROTATING IN AN OPPOSED DIRECTION



(S7) Abstract: A gas turbine engine has a fan rotor, a first compressor rotor and a second compressor rotor. The second compressor rotor compresses air to a higher pressure than the first compressor rotor. A first turbine rotor drives the second compressor rotor and a second turbine rotor. The second turbine drives the compressor rotor. A fan drive turbine is positioned downstream of the second turbine rotor. The fan drive turbine drives the fan through a gear reduction. The first compressor rotor and second turbine rotor rotate as an intermediate speed spool. The second compressor rotor and first turbine rotor together as a high speed spool. The high speed spool rotating in the same direction as the intermediate speed spool. The fan drive turbine rotates in an opposed direction as the intermediate speed spool.